Using Information Communication Technology as a Teaching tool in Sudanese Governmental Universities of Khartoum State

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Abstract— **The revolution of Information Technology (IT) and the rapid development in the communications inevitably the Sudanese educational institutions to use the new technology tools in their programs and strategies. Especially there are some private Sudanese universities take the implementations of (ICT) in their account. The main aim of this study is to explore the reasons behind the useless or the effective use of the (ICT) in (SGU) in teaching. The study selected (10%) from the teachers in (SGU) as a sample, such that the sample of teachers after selection is (600) teacher. The questionnaire method was adopted for collection of data in this study, with benefit from (Likert) method. The study founded that (SGU) used some (ICT) hardware, software and tools properly such as: computers, projectors and internet in teaching and in their other academic activities. In addition, there is a middle and rarely usage for other (ICT) such as video conferencing system, virtual meeting system, planning student's courses, preparing students courses, preparing lectures in presentation software and giving students assignments to be presented by computers. Some of (ICT) tools are not used in (SGU) such as (digital cameras, interactive whiteboards). In addition, the study founded that there is no teacher training in (SGU), in spite of including this activity in the universities plans. The study recommends (SGU) to concern with teacher's training and other (ICT) tools such as (interactive whiteboards) and (internet speed).**

Keywords— **ICT, eLearning, SGU, Internet, Multimedia.**

I. INTRODUCTION

The dynamic process and rapid development of technology has a great impact on most of life aspects. Undoubtedly, it has become essential to acquire all the required skills and knowledge of technology principles to achieve the demands of the progressed globe (Hussin et al. 2015). Information Communication Technology (ICT) as one of the technology principles has witnessed, within very short time, a noticeable progress across all the aspects of life; particularly the sector of education. For many countries, acquiring the skills and understanding the notions of ICT become indispensable to improve their educational systems. Recently, it has been noted that ICT started widely playing a key role in education such as facilitating the process of teaching. Therefore, it should be used efficiently to empower the pedagogical process. Moreover, ICT tools are used for different purposes such as timetabling, library management, electronic reporting, and monitoring attendance. These tools facilitate the administration of the universities to attain the community needs [2]. At the same time, ICT has an ample influence on the domains of research and activities [3]. However, teachers still need to be prepared to use the ICT in teaching successfully [1].

Since the last decade, numerous number of researchers who are concerned with integrating ICT in education have been conducting different studies to examine and explore several matters related to this issue. Earlier in 2001, Pelgrum distributed a worldwide survey among schools of 26 countries to examine the perceptions of educational practitioners about the challenges that extremely hinder the comprehension of ICT-related goals of schools. The findings showed that the obstacles of understanding the ICT-related goals include both material and non-material conditions and lack of computer literacy among teachers is the main obstacle. Voogt and Pelgrum (2005) conducted a case study by involving 28 countries to investigate the changes occurred on the curriculum of 'ICT-supported' pedagogical processes. The researchers of this study concentrated on the analysis of both curriculum content and goals. The results revealed that curriculum content often was the same; however, it was delivered in various ways. Yet, several 'ICT-supported' tutorial practices attempted to comprehend new goals which are vital for the learning in the sector of information society. Moreover, both content and goals frequently overcame the traditional boundaries of the academic subjects. In Cyprus whereas ICT in education is still in the infancy stage, Mama and Hennessy (2013) investigated teachers' views about the implications of ICT in the

pedagogical processes. Primary teachers were involved in this multi-case study. Teachers showed a positive relation between their opinions and the practices of ICT in schools.

A paper which is based on the theory of planned behavior (TPB), Valtonen et al. (2015) carried out a quasi-experimental design using repeated measured t-tests to examine the effectiveness of pre-service teachers' intentions to employ ICT tools in teaching and learning processes. The results of this study showed that there were no differences in the attitudes and intentions of the teachers regarding the applications of the ICT in both teaching and learning. Yet, the findings revealed significant changes occurred on the teachers' self-efficacy towards the use of ICT as well as clear differences between the pre-and post tests between the subjective norms and the self-efficacy. A recent study performed by Bai et al. (2016) discussing the learning outcomes resulted due to integrating the ICT effectively into teaching programs. 6304 fifth grade students from 127 rural schools in China were involved in this study. The findings revealed that the process of integrating ICT applications in teaching programs showed a significant effectiveness in the educational performances and on students test scores as a result.

The above studies show positive attitudes about the applications of ICT in different educational systems. However, Sudanese Governmental Universities (SGUs) and other Sudanese institutions, collages, researches centers, Sudanese secondary and primary schools have largely benefited from the rapid changes in technology, and the development of the information technology in Sudan. For instance, the candidates of the Sudanese Secondary Certificate have got their results and present for the universities by the internet. In addition, most of the students in Sudanese universities make their registration by the internet [4]. Although, Sudan has many governmental universities and many other higher educational institutions and most of these institutions have different polices in education and teachers' training, also have different visions, missions and polices in the using of (ICT). Yet, there remains a lack of studies examining the attitudes of Sudanese instructors and students and their practices about the ICT applications if any. This study aims to explore to what extent SGUs are using the ICT tools in education. The current study will give many results that serve the Sudanese universities and the Sudanese social community in general.

II.   METHODOLOGY

In this paper, we diagnosed the questionnaire for determine the using information communication technology as a teaching tool in Sudanese governmental universities of Khartoum state. To fix these problems, we firstly conducted a survey to various teachers in the (SGUs) in Khartoum State. The questionnaires were distributed to collect the required data in order to achieve the research goal. The total number of samples collected was six thousand and eleven (6011) teachers in eight (8) selected universities. The survey was disseminated through the website. Moreover, observation was also conducted in many universities that used the ICT, such as university of Khartoum, Sudan university of science, Omdurman Islamic University, Al-Neelain University, Bahri University, and government institutions. In addition, the data were analyzed using a statistical analysis to find out the problems that the organization faces.

This study hopes to shed light on using information communication technology as a teaching tool in Sudanese governmental universities of Khartoum state. Figure 1 shows the steps of the methodology.
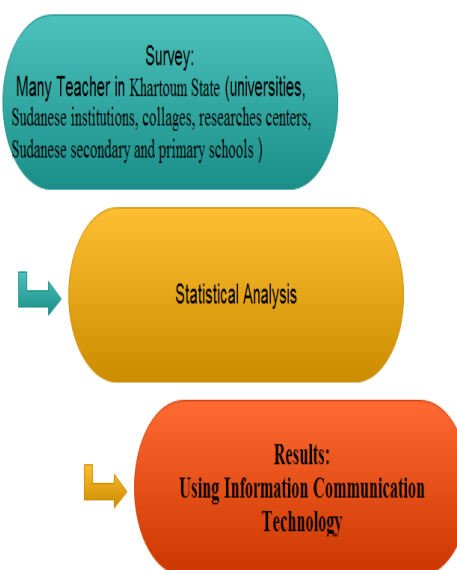

Fig. 1 Steps Of Methodology

III.   PARTICIPANTS

The participants of this study were organizations in Khartoum State. This study focused on the teachers who had works in Sudanese Governmental Universities (SGUs) and other Sudanese institutions, collages, researches centers, Sudanese secondary and primary schools. In this study, from eight (8) universities (as shown in Table 1) were selected to ensure a wider scope of data collection which helped to diagnose the usage that were identified. The total number of teachers in these universities was six thousand and eleven (6011), and, the total number of sample was six hundred (600) the data collected. Based on the results of this survey, it is found the level of using information communication technology as a teaching tool in Sudanese governmental universities of Khartoum state.

TABLE 1
Total Number of Teachers and the Corresponded Sample of Each Universities in SGU

	University	Total	Sample (10%)
1	University of Khartoum (u of K)	1240	124
2	Sudan University of Sciences and Technology (SUST)	1010	100
3	Omdurman Islamic University (OIU)	950	95
4	Al-Neelain University (AU)	900	90
5	Bahri University (BU)	700	70
6	Al-Ziem Al-Azhari University (AAU)	450	45
7	The Holy Quran University (HQIU)	400	40
8	The National Ribat University (NRU)	361	36
	Total	**6011**	**600**

Data Collection Instrument

This research consists of two phases of data collection. The first phase includes the background information of the participants and organizations while the second phase focuses on the cloud computing security. The data collection was conducted by distributing the questionnaire and collecting the feedback from various organizations via email and field visits within a period of six months.

Table 1 shows the data collected on the background information of the participants and organizations. It shows that 124 participants from University Of Khartoum, 100 of them from SUST , 95 of them from OIU, 90 of them from AU, 70 of them from BU, 45 of them from AAU , 40 of them from HQIU, and 36 of them from NRU. The table (Table 1) also presents the University, total, and sample.

On the other hand, the second part (Part 2) of the questionnaire focuses on the using information communication technology as a teaching tool. The study uses the descriptive method in the analysis of the quantitative data with benefits from (SPSS) application such that the study used (Chi-Square) test, to find if there are statistical significance differences or not, in addition to the use of (MS-Excel).

IV. ANALYSIS OF THE TEACHERS QUESTIONNAIRE

In this section, the study presents and analyzes the answers obtained from the teachers in (SGUs) about their opinions for the questions included in the questionnaire, to validate the study hypotheses.

V. TESTING THE USE OF (ICT) HARDWARE IN (SGU)

According to the first question in the questionnaire which is: (please can you estimate the usage level of the following (ICT) hardware in your collage)? The researcher makes this question to validate the first hypothesis which is: ((there is no usage of (ICT) hardware in (SGU)). The following table shows the means of the respondents' teachers about the use of the (ICT) hardware in (SGU).

TABLE 2
Values Of (Chi-Square -Test) For (ICT) Hardware In (SGU).

Usage of (ICT) Hardware	Mean	Calculated Chi Square	Chi Square From Table	df	Sig.	N
PC	2.4633	98.350	9.488	4	0.000	600
Lab Tops	2.5117	123.417	9.488	4	0.000	600
Projectors	1.9467	32.500	9.488	4	0.000	600
Digital Audio	1.2100	191.950	9.488	4	0.000	600
Digital Video	.8150	469.617	9.488	4	0.000	600
Digital Cameras	.6983	696.500	9.488	4	0.000	600
Interactive Whiteboard	.3000	1417.950	9.488	4	0.000	600

TABLE 3
Percentages of The Usage Of (ICT) Hardware In (SGU) According to the (Chi-Square) Means.

Mean Ranges	Selections	No. of Means	Percentages
0 - 0.8	Never Used	2	28.6%
0.8 - 1.6	Rarely Used	2	28.6%
1.6 - 2.4	Middle Used	1	14.2%
2.4 - 3.2	Most Used	2	28.6%
3.2 - 4	Full Used	-	-
Total		7	100%

From table (2) the probability values for all questions are (0.000) and these values are less than the significance level which is (0.05). Also the critical value of Chi-square which is (9.488) is less than the calculated values of Chi-square. These two statistic inferences indicate that there are statistic significant differences in the usage of (ICT) hardware in (SGU), and all the statements in table (2) are statistic significant at the level (0.05).

From table (3) the (ICT) hardware is most used by (28.6%), middle used by (14.2%), rarely used by (28.6%), and never used by (28.6%). These percentages indicate that the first hypothesis of the study (there is no usage of (ICT) hardware in (SGU)) is not typical. According to these results, there is a gradient distribution in the level usage of (ICT) hardware in (SGU), begins from the high-level usage of the lab top and personal computers which are most used by (28.6%) respectively, ended by the low level usage of video devices which are rarely used by (28.6%). In addition, digital cameras and interactive whiteboards devices are not used in (SGU) by (55%). The following figure shows the level usage of (ICT) hardware in (SGU) according to the means of the teachers' questionnaire.
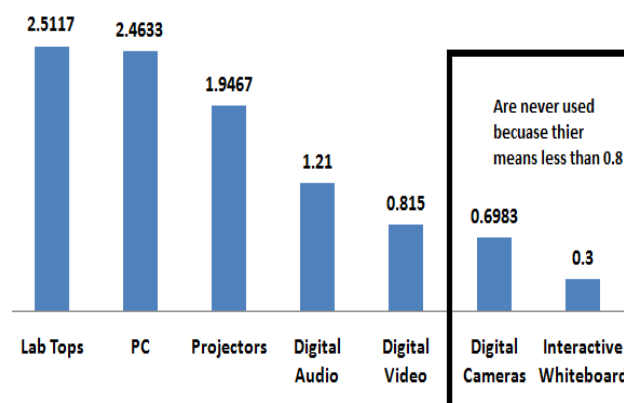

Fig. 2 Usage The (ICT) Hardware In (SGU)

VI. TESTING THE USE OF (ICT) SOFTWARE IN (SGU)

According to the second question in the questionnaire, which is (please can you estimate the usage level of the following (ICT) software in your collage?). The researcher makes this question to validate the second research hypothesis which is: (there is no usage of (ICT) software in (SGU)). The following table shows the means of the respondents about the use of the (ICT) software in (SGU).

TABLE 4
Values Of (Chi-Square -Test) For The (ICT) Software In (SGU).

Usage of (ICT) Software	Mean	Calculated Chi Square	Chi Square From Table	df	Sig.	N
Office Suite	2.6567	149.417	9.488	4	0.000	600
Internet Software	2.0133	54.883	9.488	4	0.000	600
Graphical Software	1.8417	20.883	9.488	4	0.000	600
Databases	1.7217	62.233	9.488	4	0.000	600
Multimedia Software	1.6150	58.950	9.488	4	0.000	600
Encyclopedias CDs	1.1750	246.114	9.488	4	0.000	600
Simulation Software	1.0600	301.333	9.488	4	0.000	600

TABLE 5
Percentages of The Usage Of (ICT) Software In (SGU) According to (Chi-Square) Means

Mean Ranges	Selections	No. of Means	Percentages
0 - 0.8	Never Used	-	-
0.8 - 1.6	Rarely Used	2	29%
1.6 - 2.4	Middle Used	4	57%
2.4 - 3.2	Most Used	1	14%
3.2 - 4	Full Used	-	-
Total		7	100%

From table (4) the probability values for all questions are (0.000) and these values are less than the significance level which is (0.05). Also the critical value of Chi-square which is (9.488) is less than the calculated values of Chi-square. These two statistic inferences indicate that there are statistic significant differences in the usage of (ICT) software in (SGU), and all the statements in table (4) are statistic significant at the level (0.05).
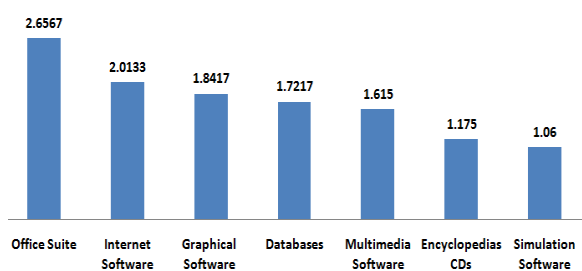

Fig. 3 Gradient Level of Usage the (ICT) Software In (SGU).

From table (5) the (ICT) software is most used by (14%), middle used by (57%), and rarely used by (29%). These percentages values indicate that the second hypothesis of the study (there is no usage of (ICT) software in (SGU)), is not typical. These results indicate that there is a gradient distribution in the level usage of (ICT) software in (SGU), begins from the high level usage of the office suite which is most used by (14%) ended by the low level usage of simulation software which is rarely used by (29%). The following figure shows the level usage of (ICT) software in (SGU) according to the means of the teachers' questionnaire.

VII. TESTING THE USE OF (ICT) TOOLS (COMPUTERS OR INTERNET) IN (SGU) SYSTEMS

According to the third question in the teachers' questionnaire, which is: (please can you estimate the usage level of computer or internet in the following systems in your collage)? The researcher makes this question to validate the third research hypothesis which is: (there is no usage of (ICT) tools (computer or internet) in (SGU) systems). The following table shows the means of the respondents' teachers about the usage of (ICT) tools (computers or internet) in (SGU) systems.

TABLE 6
Values Of (Chi-Square -Test) For (ICT) Tools (Computers or Internet) In (SGU) Systems

Usage of (ICT) tools (computers or Internet) in (SGU) systems	Mean	Calculated Chi-Square	Chi-Square From Table	df	Sig.	N
Registration System	3.1317	486.317	9.488	4	0.000	600
Results System	3.1000	448.717	9.488	4	0.000	600
Management System	2.3983	58.417	9.488	4	0.000	600
Accounting System	2.2850	71.700	9.488	4	0.000	600
E-Learning System	1.5833	54.7	9.488	4	0.000	600
Video Conferencing System	1.4617	90.217	9.488	4	0.000	600
Virtual Meeting System	1.3900	114.267	9.488	4	0.000	600
Planning students course	1.3450	176.533	9.488	4	0.000	600
Preparing students examination	1.3200	145.283	9.488	4	0.000	600
Preparing lectures in presentation software	1.0117	323.833	9.488	4	0.000	600
Giving students assignments to be presented by computer	0.8650	473.150	9.488	4	0.000	600

TABLE 7
Percentages the Usage Of (ICT) Tools (Computers or Internet) In (SGU) According to the (Chi-Square) Means

Mean Ranges	Selections	No. of Means	Percentages
0 - 0.8	Never Used	-	-
0.8 - 1.6	Rarely Used	1	12.5%
1.6 - 2.4	Middle Used	4	50%
2.4 - 3.2	Most Used	3	37.5%
3.2 - 4	Full Used	-	-
Total		8	100%

From table (6) the probability values for all questions are (0.000) and these values are less than the significance level which is (0.05). Also the critical value of Chi-square which is (9.488) is less than the calculated values of Chi-square. These two statistic inferences indicate that there are statistic significant differences in the usage of (ICT) tools (computers or internet) in (SGU) systems, and all the statements in table (6) are statistic significant at the level (0.05).

From table (7) the (ICT) tools (computers or internet) are most used by (27%), middle used by (18%), and rarely used by (55%). These percentages values indicate that the third hypothesis of the study (there is no usage of (ICT) tools (computers or internet) in (SGU) systems), is not typical.

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According to the above results there is a gradient distribution in the usage level of (ICT) tools (computers or internet) in (SGU) systems, begins from the high level usage of the registration system which is most used by (18%), ended by the low level usage of giving students assignments to be solved by computers which is rarely used by (55%) in (SGU) systems. The following figure shows the level usage of (ICT) tools (computers or internet) in (SGU) systems according to the means of the teachers' questionnaire.
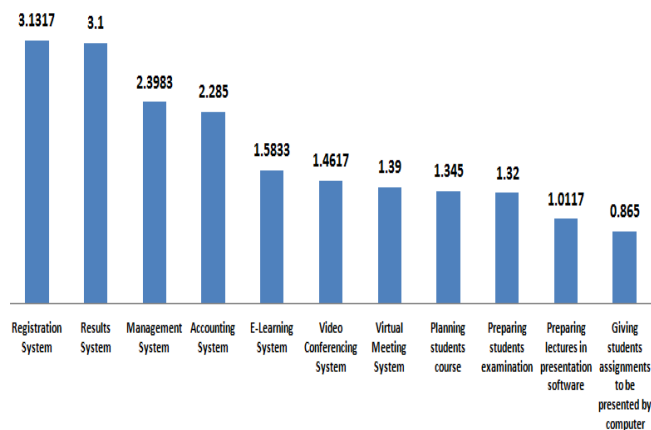

Fig.3 Usage Of (ICT) Tools (Computers or Internet) in (SGU) Systems

VIII. TESTING THE USE OF THE INTERNET IN (SGU)

According to the fourth question in the teachers' questionnaire, which is: (please can you estimate the usage level of the internet in your collage)? The researcher makes this question to validate the fourth research hypothesis which is: (there is no usage of the internet in (SGU)). The following table shows the means of the respondents' teachers about the usage of the internet in (SGU).

TABLE 8
Values Of (Chi-Square -Test) For the Usage the Internet In (SGU)

Usage the internet for	Mean	Calculated Chi Square	Chi Square From Table	df	Sig.	N
Searching Information	3.1150	433.617	9.488	4	0.000	600
Interacting with my colleagues	2.4817	154.767	9.488	4	0.000	600
Following students projects, thesis, and researches	2.3850	95.133	9.488	4	0.000	600
Browsing the university web site	2.0233	46.317	9.488	4	0.000	600
Interacting with administrators	1.8850	39.350	9.488	4	0.000	600
writing educational materials	1.7050	80.683	9.488	4	0.000	600
solving academic assignments	1.5717	77.483	9.488	4	0.000	600
Downloading academic materials	1.1733	210.917	9.488	4	0.000	600

TABLE 9
Percentages of Usage Internet In (SGU) According to the (Chi-Square) Means

Mean Ranges	Selections	No. of Means	Percentages
0 - 0.8	Never Used	-	-
0.8 - 1.6	Rarely Used	6	55%
1.6 - 2.4	Middle Used	2	18%
2.4 - 3.2	Most Used	3	27%
3.2 - 4	Full Used	-	-
Total		11	100%

From table (8) the probability values for all questions are (0.000) and these values are less than the significance level which is (0.05). Also the critical value of Chi-square which is (9.488) is less than the calculated values of Chi-square. These two statistic inferences indicate that there are statistic significant differences in the usage of the internet in (SGU), and all the statements in table (8) are statistic significant at the level (0.05).

From table (9) the internet is most used by (37.5%), middle used by (50%) and rarely used (12.5%). These percentages indicate that the fourth hypothesis of the study which is (there is no usage of the internet in (SGU)), is not typical. According to these results there is a gradient distribution in the level usage of the internet in (SGU), begins from the high level usage of the internet in searching which is most used by (37.5%) ended by the low level usage of the internet in downloading academic materials, which is rarely used by (12.5%). The following figure shows the level usage of the internet in (SGU) according to the means of the teachers' questionnaire.
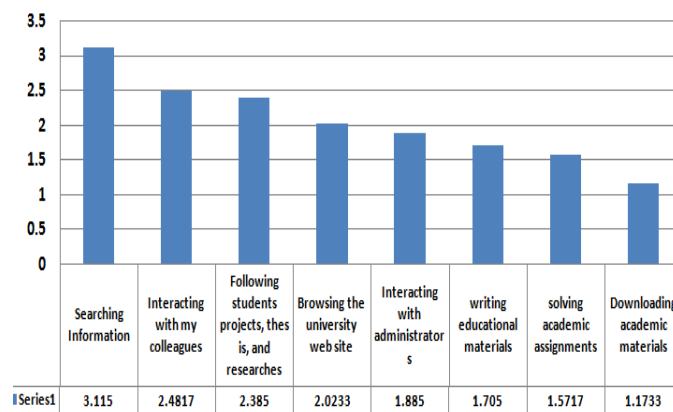

Fig.4 Usage the Internet In (SGU)

IX. TESTING OF THE (ICT) TEACHER'S TRAINING IN (SGU)

According to the fives question in the teachers' questionnaire, which is: (Are you get any (ICT) teachers training in the following (ICT) tools from your university)? The researcher makes this question to validate the fives research hypothesis which is: (there are no (ICT) teachers training in (SGU)). The following table shows the means of the respondents' teachers about the (ICT) teachers' training in (SGU).

TABLE 10
Values Of (Chi-Square) For The (ICT) Teachers' Training In (SGU)

Are you getting a teacher training in the following of the (ICT) tools from your university?	Mean	Calculated Chi Square	Chi Square from table	df	Sig.	N
Office Suite	.5450	626.520	7.815	3	0.000	600
Graphical Software	.5350	626.520	7.815	3	0.000	600
Smart Phones	.4783	554.227	7.815	3	0.000	600
Personal Computers	.3433	1029.813	7.815	3	0.000	600
Internet &Networks	.3300	1005.520	7.815	3	0.000	600
Laptops	.31500	1091.347	7.815	3	0.000	600
Databases	.3033	971.893	7.815	3	0.000	600
Multimedia Software	.2800	1006.013	7.815	3	0.000	600
Multimedia Projectors	.2600	1186.160	7.815	3	0.000	600
Internet Services	.2300	1237.773	7.815	3	0.000	600
Examinations Systems	.2267	1189.360	7.815	3	0.000	600
Encyclopedias CDs	.2217	1195.613	7.815	3	0.000	600
Registering Systems	.2100	1253.360	7.815	3	0.000	600
E- Learning Systems	.2000	1286.173	7.815	3	0.000	600
Simulation Software	.1867	1254.813	7.815	3	0.000	600
Network Connectivity	.1583	1388.040	7.815	3	0.000	600
E-Library Systems	.1583	1374.333	7.815	3	0.000	600
Digital Audio Devices	.1533	1401.840	7.815	3	0.000	600
Maintenance	.1433	1423.627	7.815	3	0.000	600
Interactive whiteboards	.1267	1480.053	7.815	3	0.000	600
Image Digital Cameras	.1200	1466.133	7.815	3	0.000	600
Digital Video Devices	.1083	1480.893	7.815	3	0.000	600

TABLE 11
Percentages for Teachers' Training In (SGU) According to the (Chi-Square) Means

Mean Ranges	Selections	No. of Means	Percentages
0 - 0.75	Never Get	22	100%
0.75 - 1.5	One Time	-	-
1.5 - 2.25	Two Times	-	-
2.25 - 3	More than Two Times	-	-
Total		22	100%

From table (10) the probability values for all questions are (0.000) and these values are less than the significance level which is (0.05). Also the critical value of Chi-square which is (7.815) is less than the calculated values of Chi-square. These two statistic inferences indicate that there are statistic significant differences in the (ICT) teachers' training in (SGU), and all the statements in table (10) are statistic significant at the level (0.05).

From table (11) all teachers in (SGU) are never get any (ICT) teachers' training. This result indicate that the fives hypothesis of the study (there are no (ICT) teachers training in (SGU)), is typical. These results reflect that there is no (ICT) teachers'

training in (SGU) because their means are less than (0.75) as it shown in the following figure.
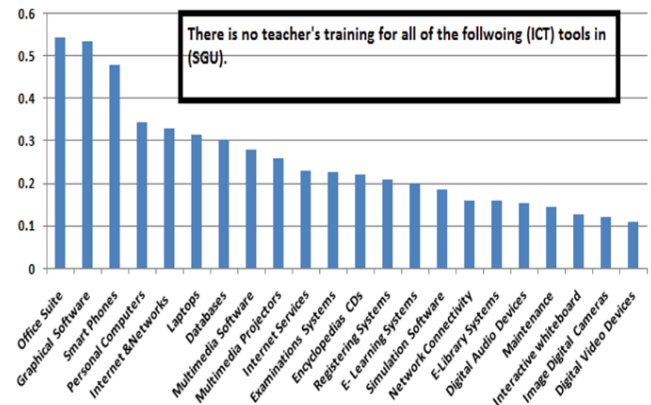

Fig.5 (ICT) Teachers' Training in (SGU)

X. RESULTS AND DISCUSSION

From the previous presentation and analysis, the study founded that computers are mostly used (ICT) hardware in (SGU). This result indicates that (SGU) uses the computers properly. The multimedia projectors devices are middle used, and this result reflect that the (SGU) need more concern with this type of (ICT) hardware, because of the effective functions of the projectors devices in the university life. The digital audio devices are rarely used, this result indicate that: (SGU) need to increase their (ICT) hardware needs especially the digital audio devices, because are necessary for the big lectures rooms to help the teachers in teaching. Digital cameras and interactive whiteboards are never used in (SGU). It is important for (SGU) to include the interactive whiteboards in their (ICT) hardware to cope wrath the international universities. Also (SGU) need to draw the attention to digital literacy especially the (ICT) and visual literacy for interactive whiteboards, as during the data collection stage by the questionnaires, the researcher founded that there is a lack of knowledge about the interactive whiteboards devices, so most of the teachers ask about the roles of this device. This fact need from (SGU) to make (teachers and students) training courses for this (ICT) hardware.

XI. CONCLUSION

The study founded that office suite is mostly used in (SGU). But according to the importance of the office suite for teachers; (SUG) need more concern with the usage of it, because of the different functions of it, specially (PowerPoint) application in the presentation of the lectures. The (data base, graphical, internet applications, simulation) software are middle and rarely used in (SGU). These results reflect that there is a need to concern with this (ICT) software from (SGU).

The study founded that (computer and internet) are mostly used in the registration and results systems. These results reflect that the registration of students in most (SGU) is done by computers or internet, but (SGU) need more activation for these (ICT) tools to enable all students to register by the internet, and to get their examinations results. In addition to the mostly use of (computer and internet) in accounting system, the study founded that these tools are middle used in the E-Learning

system. This result reflect that (SGU) need to concern with this type of learning methods, because of the importance of E-Learning system, especially some other studies recommended (SGU) to use this system such as: the study of [Hala A. I. (2012), P.115] (7) about E-Learning in (SGU). The (ICT) tools (computers or internet) are rarely used in the: [video conferencing system, virtual meeting system, planning students courses, preparing students courses, preparing lectures in presentation software and giving students assignments to be presented by computers]. (SGU) need to train and motivate the teachers in the implementations of these systems because all teachers in (SGU) have a positive opinions towards of (ICT) tools in teaching, so (91%) of the teachers believe that (ICT) tools can develop both teachers and students (8). These results reflect that (SGU) need more concerning with the usage of (ICT) tools.

The study founded that the internet is mostly used in (searching for information, interacting of teachers with their colleagues, follows up of the student's researches, projects and theses). These results indicate that the internet is used properly in the above activities in (SGU). In addition, the internet is middle used in (browsing the university web site and in writing academic materials), but it is rarely used in downloading academic materials. The rarely usage of the internet in downloading may be due to the low level of the speed of the networks in (SGU), because downloading need high level speed. This result need from (SGU) to improve and increase the internet speed to help teachers and students in downloading for the academic materials.

The study founded that there is no teacher's training in (SGU) and most of teachers trained themselves outside the university. (SGU) declare the teachers' training in their plans, and objectives, but in reality there is no implementations of these plans in the teachers training.

The training needs financial support from the government and maybe there is a lack of financial support from the government, or maybe other fields take a priority in supporting than the educational field in (SGU).

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