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The extent of using the internet for educational purposes among Faculty members

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Abstract

This study aimed to identify the extent of using the Internet among faculty members at the Hashemite University and their training needs. The descriptive approach was used to suit the nature of the study. As a result, 0.63 of the faculty members used the Internet on a daily basis, (0.25) used it on a weekly basis, and only (0.13) percent used it on a weekly basis. The overall average of internet usage among faculty was (2.25). In conclusion, the researchers recommend to activate the internet as an important source of teaching and to encourage its use on a daily basis.

Keywords: Internet, Training needs, Faculty preparation.

El alcance del uso de Internet con fines educativos entre los miembros de la facultad

Resumen

Este estudio tuvo como objetivo identificar el alcance del uso de Internet entre los miembros de la facultad de la Universidad Hashemite y sus necesidades de capacitación. El enfoque descriptivo se utilizó para adaptarse a la naturaleza del estudio. Como resultado, 0.63 de los miembros de la facultad usaron Internet a diario, (0.25) lo usaron semanalmente y solo (0.13) por ciento lo usaron semanalmente. El

promedio general de uso de internet entre los profesores fue (2.25). En conclusión, los investigadores recomiendan activar Internet como una fuente importante de enseñanza y alentar su uso a diario.

Palabras clave: Internet, Necesidades de capacitación, Preparación del profesorado.

1. INTRODUCTION

Humanity witnessed rapid changes of knowledge which impacted all spheres of life. The Internet has been at the forefront of these changes which improved and affected the quality of different educational, social and cultural activities and the mechanism of practicing these activities.

The Internet is an easy way to connect people despite the temporal and spatial spacing, control of the world, and influenced different educational institutions, public and private. Open universities, virtual universities, and e-universities have emerged, all of which have been using the Internet as their main tools in communication and education (AL-ZAHRANI, 2005).

The Internet has become a tool for research and discovery by its users, providing teachers and learners with the ability to learn and communicate with colleagues, schools, universities, and the local and global community (ALLEN, 2001). FATHY (2009) pointed out that the use of the Internet, in many universities in the world, is a source of learning, as a result of the possibilities provided by the rapid access to information. The book is no longer the only source of information. It is

through which all new knowledge in the field of specialization is reviewed with the minimum time required for learning.

AL-ANZI (2005) stressed that the interest of universities in opening internet centers on campus aims to raise the interest of faculty members and students in order to motivate them to learn, share and participate in scientific research. The abundance of sources provided by the Internet reinforced research projects among faculty members. This is supported by AL-SALEM (2017), who confirmed that the United States spent $ 6.9 billion in 1999 to provide Internet access to universities and schools in order to facilitate education and make it free and accessible to all.

AL-GHAMDI (2016) emphasized that access to the knowledge era is determined by the amount of investment in modern technologies and training courses to equip new generations with necessary sufficient technological background that will foster their learning possibilities. The researchers believe that the Internet and its contents influenced our life in terms of exchanging information in most areas, whether educational, social or other areas, but this important role of this network does not give us its best outcomes without sufficient practice carried by individuals towards these topics and how to use them in the educational process, and therefore mastering the use of the Internet can reinforce knowledge sharing with minimum efforts.

The purpose of this study was to discuss the internet usage among faculty members from an educational perspective. The Internet

is a modern technology that facilitates solving many educational and social problems. Thus, it is important to know the extent of the use of the Internet by faculty members and the needs they lack to improve their skills. This has the potential to exert more efforts by the Hashemite University administration to focus on the positive outcomes of using the internet in order to maximize the possible benefits of the Internet in its various fields (SULTAN & AL-FANTOKH, 2000).

Similar to other universities in the world, Hashemite University believes that the Internet is a means and a basic base for educational and scientific communication. Thus, it exerted much effort to make the internet use an essential part of work culture among faculty members and their students. However, not all staff at the university seemed to master the necessary skills of surfing and using the internet effectively either for educational purposes in their classrooms or for research purposes. This study tried to explore the reality of using the internet by its faculty members to address possible training needs that could bridge the gap between administration staff expectations and the status quo.

Study Questions:

1– To what extent do faculty members at Hashemite University use the internet for educational purposes?

2- Are there any differences of statistical significance in the use of the internet due to the variables of gender and college among faculty members at the Hashemite University?

3- What are the training skills faculty members at the Hashemite University need?

2. METHODOLOGY

The researchers used the descriptive approach to suit the nature of this study and its objectives. The study population is composed of all 800 faculty members at the Hashemite University in the first academic semester of 2019/2020. The study sample consisted of (120) members of the faculty at the Hashemite University with a percentage of (0.52) of the study population. The systematic random sampling was used to select participants according to the variables of gender and college. Table (1) shows this (ODEKU, 2015).

Table 1: distribution of the study sample according to their variables

Variable		Number	Percentage
Gender	Male	76	63%
	Female	44	37%
Total		120	100%
College	Education	46	38%
	Pharmacy	38	32%
	Engineering	36	30%
Total		120	100%

In order to achieve the objectives of this study, the researchers designed a tool for the study after reviewing the previous literature. The tool consisted of two areas: the first one is (the use of the Internet), consisted of (3) items, and the second area (training needs of the Internet), consisted of (16) items.

The questionnaire designed for this purpose consisted of the following parts:

Part 1: General information including study variables

Part 2: areas of the questionnaire and its items, and the first items of the first area were (every day, 3 times a week, once a week). The respondents were asked to answer with a tick sign (✓). The words are calculated according to the frequency of each statement, and scores were given to these terms. Every day was given 3 grades, as the first statement. The last statement (once a week), was given the lowest grade (1). The following criterion has been used for analysis purposes:

From 1 - 1.66 (once a week), which indicates minimum use of the internet.

From 1.67 - 2.33 (3 times a week), which indicates moderate use of the internet.

From 2.35 to 3. (everyday), which indicates frequent use of the internet.

The subjects were asked to answer the terms of the second field (I needed training, or I did not need training). The frequencies and percentages of these expressions have been calculated.

Tool Validation: After completing the design of the study tool in its dimensions, it was presented to (10) specialists from the faculty members of the universities with expertise and competence in the field of education, measurement, and evaluation to make their observations about the clarity of the tool in its fields and items. Based on their feedback, some adjustments have been made to improve and clarify the tool.

Stability of the tool:

The stability of the tool was calculated in an internal consistency method using the Cronbach Alpha formula. The stability coefficient (0.87) was acceptable for scientific research purposes.

Study Variables

a. Independent variables:

Gender, and has two categories (male, female).

The college has three levels (education, pharmacy, engineering).

B. Dependent variables:

The extent to which the faculty members used the Internet and their training needs and the response of participants to the questionnaire items.

Statistical processing

In order to answer the study questions, arithmetical averages, standard deviations, frequencies, and percentage ratios were calculated.

3. RESULTS

1 - To what extent do faculty members at Hashemite University use the internet for educational purposes?

To answer this question, the frequencies and percentages of the faculty members of the university were calculated in light of their use of the Internet. Table (2) shows this.

Table 2

Question	Statement	Frequency	percentage	Total Mean	Standard Deviation
How often do use the internet for educational purposes?	I use the internet daily	75	0.63		
	I use the internet 3 times a week	30	0.25	3.45	1.16
	I use the internet once a week	15	0.13		

The table shows that (0.63) of the teaching staff used the internet on a daily basis, (0.25) used it 3 times weekly, and (0.13) used it once a week. The total mathematical average of using the internet by the faculty members at the Hashemite University was (2.25).

2- Are there any significant statistical differences in the use of the internet due to the variables of gender and college among faculty members at the Hashemite University?

To answer this question, the arithmetical averages and standard deviations of the sample responses were extracted according to gender and college variables, and then the analysis of the variance (Two-way ANOVA), tables (3-4) explains this.

Table 3: Median and standard deviation of the responses according to gender and collage variables

Variable	Level	Mean	Standard Deviation
Gender	Male	3.60	1.18
	Female	3.44	1.20
College	Education	3.37	1.25
	Pharmacy	3.40	1.36
	Engineering	3.91	0.96

Table (3) shows that there are apparent differences between the median of the sample responses on the use of the internet among faculty members according to the variables of gender and college. To find out the statistical significance of these differences, the analysis of the binary variance (Tow-Way ANOVA) (4) explains this. Table 4. Two-way ANOVA results on Internet use according to gender and college variables

Table 4: Shows the following:

Source	Square total	Degrees of freedom	Average squares	F	Statistical significance
Gender	1.68	1	1.68	1.10	0.30
College	9.22	2	4.61	3.01	0.04
Error	223.52	116	1.53		
Total	2732.00	120			
Corrected Total	235.04	119			

1. There were no statistically significant differences at the level of significance ($\alpha = 0.05$) in the internet use among the Hashemite

University faculty members due to the gender variable, where the value of (F) was (1.10), which is not statistically significant.

2. There were significant statistical differences at the level of (α = 0.05) in the use of the internet among faculty members due to the college variable, where the value of (F) was (4.61), which is a statistically significant value. To know the statistical significance of these differences, the researchers applied the Scheffe test for post comparisons, Table 5 illustrates this.

Table 5: Scheffe test results for dimensional comparisons by college variable

College	Median	Education	Arts	Sciences
Education	2.32		0.22	0.29
Arts	2.10			0.07
Sciences	2.03			

Table (5) shows that the sources of differences between the three colleges were in favor of the college of education

3- What are the training skills faculty members at the Hashemite University need? To answer this question, the frequency and percentage of the instrument items were extracted as illustrated in the table (6).

Table 6: Frequencies and percentages of the tools' items

Item No.	Items	I Need training	Percentage	I do not need training	Percentage
1	Create a database with the Access program	90	0.75	30	0.25
2	Using online courses	89	0.74	31	0.26
3	Make a video and audio connection to another computer in the network	88	0.73	32	0.27
4	Use search engines	88	0.73	32	0.27
5	Use virtual classroom	86	0.72	34	0.28
6	Need a theoretical background of the internet and its use in learning.	85	0.71	35	0.29
7	Using audio conferences	85	0.71	35	0.29
8	Using video conferences	84	0.70	36	0.30
9	Sign up for forums and sign in	83	0.69	37	0.31
10	Use spreadsheet	82	0.68	38	0.32
11	Using File Transfer Protocol	79	0.66	41	0.34
12	Use of news groups	78	0.65	42	0.35

13	Chatting	77	0.64	43	0.36
14	Create and use blogs	74	0.62	46	0.38
15	Digital photo editing	73	0.61	47	0.39
16	How to surf the internet	70	0.58	50	0.42
Total Percentage			0.68	0.32	

The table shows that the overall percentage of responses for individuals who needed online training and skill is 0.68, while the overall percentage of non-training subjects is 0.32.

4. DISCUSSION

Discussion of the results related to the first question: To what extent do faculty members at Hashemite University use the internet for educational purposes? The results of this question showed that (0.63) of the study sample used the Internet on a daily basis. This may indicate the interest of the teaching staff and their knowledge of the internet and their keenness to follow up on everything related to the educational process and to follow the rapid technological changes. Besides, it sheds light on the role of the university in securing this network, Workshops and training courses that enable faculty members to use the Internet easily. This study is close to the study of (ADEYA, 2015). The results showed that (0.69) of respondents in Nigeria use the

Internet on a daily basis and Al-Hazmi study (2015), which found that
(66.7) of the faculty members use the Internet On a daily basis as well.

The results also showed that the extent of using the internet by
faculty members was moderate with an average of (2.25). This
indicates the accuracy of this network, and the ease of availability, and
the presence of qualified staff who received sufficient training on
using the internet due to its importance in the educational process. This
result is consistent with the results of FLECK (2017) and KELLY
(2016), both of which showed that respondents used the Internet to a
large extent. The results of this study differ with the study of (KIAN,
2015). Both showed that the respondents used the Internet in a
moderate manner, and the Shami study, which showed that the
respondents rarely used the internet.

Discussion of the results related to the second question: Are
there any significant statistical differences at the level of significance
($\alpha = 0.05$) in the use of the internet by faculty members at the
Hashemite University due to the gender and college variables? The
results related to this question showed that there are no statistically
significant differences at the level of ($\alpha = 0.05$) in the use of faculty
members due to the gender variable. This is due to the fact that
everyone knows the importance of the internet and its role in
facilitating access to knowledge and reinforcing educational outcomes.
The results of this study are in line with the study of Kinsara, which
showed that there were no statistically significant differences in the
use of the Internet according to the gender variable.

The results related to this question showed that there are statistically significant differences at the level of significance (α = 0.05) in the use of the internet by faculty members at the Hashemite University due to the variable of college and were for the advantage of faculty members in the Faculty of Education. This can be attributed to the nature of specialization and its needs in focusing on the Internet in all aspects of the educational process. The results of this study are consistent with the study of Hazmi, which showed that there are differences in the extent of Internet use according to the variable faculty members in the colleges and for the faculty members of Taif College, while the results of this study differ with the results of Flick, which showed no significant differences due to the macro variable. Discussion of the results related to the third question: What are the training skills faculty members at the Hashemite University need?

The results showed that the total percentage of responses of individuals who needed online training and skill was 0.68. This finding indicates that the majority seeks to master internet skills, systems and files, confirming the importance of the Internet and its role in enriching the learning experience for both staff and students. While the total proportion of items that do not need training was (0.32). This indicates good skills in terms of using the internet among the study sample, or lack of desire to use the internet due to their tendency to use traditional teaching methods that rely more on books and printed materials.

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