

Iraqi Nursing Faculty Attitudes toward E-Learning: a National Survey

Sadeq AL-Fayyadh PhD¹, Qahtan Q. Mohammad PhD²

¹(Adult Nursing Department, College of Nursing, University of Baghdad)

²(Psychiatric mental health Nursing Department, College of Nursing, University of Baghdad)

Abstract: *The core purpose of this study was to examine the attitudes of Iraqi faculty members toward e-learning at all governmental nursing colleges, as well as to explore the relationship between their attitudes toward e-learning and their socio-demographic characteristics, beside other related variables. Forty-four faculty members were purposively targeted to respond to the study questionnaire, which was constructed to examine their attitude toward e-learning by using typical five-level Likert item. Self-administrative report technique was employed to collect the data. Data were analyzed by the application of descriptive statistical analysis, which were; percentages, frequencies, means and standard deviation. Inferential statistical analysis on the other hand used mean scores and Alpha correlation, t-test. The findings of the study revealed that Iraqi nursing faculty attitude towards e-learning is moderately to highly positive. There was no significant relationship between faculty attitude toward e-learning and the most variables. However, a significant difference. Therefore, it is highly recommended to highlight the hindering factors that contributed in shaping faculty negative attitude toward e-learning as well as the motivating factors that contributed in shaping faculty positive attitude toward e-learning since this would enhance educational policy-makers understanding consequently empower them to design and conduct tailored action plans toward adopting e-learning at the national level.*

Keyword: *Survey, attitudes, E-Learning, & Iraqi nursing faculty*

I. Introduction

In the era of information abundance, diversity, and complexity, it is crucial for faculty members, students, and educational organizations to put things in order⁽¹⁾. One feasible way to achieve this can be approached by understanding how faculty members as principal stakeholders feel about educational technologies and its diverse scope. This can be rationalized by the fact that focusing on faculty attitudes and specific factors, motivating, inhibiting, and affecting their active engagement with using technology in teaching-learning process holds the maximal priority in the process of effective adoption and deployment of technology-enabled education⁽²⁾. Therefore, faculty attitude and motivation assume considerable significance in this multifaceted equation⁽³⁾. Information and Communication Technologies (ICT) are considered as potential accelerator for social and economic advancements as they contribute to the transformation of universities and societies, especially in developing countries in a positive way. Today, ICT offer a whole new dimension to learning, namely e-learning. E-learning is defined as: to use multimedia technologies and the Internet to improve the quality of learning by facilitating access to facilities and services as well as remote exchanges and collaboration of information among all the involved stakeholders in a reliable and cost-effective way⁽⁴⁾. Many studies have shown that user' perceptions and attitudes toward e-learning is a pivotal predictor of its prospect in their academic institutions. Human 's attitude depends on his/her belief or perceptions: meaning given by the individual about the thing used. Therefore, if e-learning users perceive educational technologies favorably, they are more likely to speedily adopt digital tools than those who misperceive or under-perceive them⁽⁵⁾. While students have bought into online education, many faculty members are still skeptical⁽⁶⁾. As a result, this study is unique, considering the fact that no previous national study has focused on Iraqi nursing faculty members' attitude toward e-learning. Most importantly, the findings of this study are significant to educational policy makers in identifying underlying concerns by faculty to adopt such a relatively new educational approach. Using ICT in delivering education represents a challenge for all the stakeholders, particularly faculty members who used to teach by using traditional approaches of instruction. Furthermore, this research strengthens and also broadens the knowledge base within the education field, as well as lays the groundwork for additional studies with larger scale. Technology would transform the act of teaching, whether or not teachers or students are ready for this inevitable change⁽⁷⁾.

Objectives of the Study

The study aims at: (1) examining the attitudes of Iraqi faculty members toward e-learning at all governmental nursing colleges; (2) exploring the relationship between their attitudes toward e-learning and their socio-demographic characteristics, beside other related variables.

II. Methodology

A descriptive study (national survey) was carried out at all Iraqi colleges of nursing from 1st May, 2011 to 1st September, 2011. A purposive (non-probability) sample of 44 faculty member who currently working at Iraqi colleges of nursing where involved in the present study. Those where distributed as 12 faculties from the University of Baghdad; 9 from the University of Babylon; 6 from the University of Kufa; 3 from the University of Kirkuk; 4 from the other Universities which are: Bhasra, Thi-qar, Ribrain and Sulaymaniyah. The response rate was 100% (n=44). Al-Hawamdeh (2010)⁽⁸⁾ questionnaire was used to measure the variable underlying the study. Referees validity for the developed instrument was determined through the use of a panel of experts to investigate the clarity, relevancy, and adequacy of the questionnaire in terms of achieving the study's objectives. 7 experts had agreed that the contents of this instrument accurately reflect the underlying construct. The correlation coefficient is (.85) representing a significantly high level of validity. Similarly, by using Alpha Cronbach equation, this tool has a significantly high level of reliability of (.89). A questionnaire was sent to the subjects by the mean of e-mails & received back after being filled by the same approach. The questionnaire consists of two parts: the first part is concerned with the socio-demographic characteristics of the faculty which include: university of, age, years of employment, scientific degree, scientific certificate, certification, years of experience, to occupy managerial post, get e-learning course, to reinforce classic learning with e-learning, to be cognizant of e-learning web site, participate e-learning courses, specify teaching tasks, and job environment and e-learning; the second part consist of 30 items which were measured, scored and rated of 5- level Likert rating scale: strongly agree (5), agree (4), neutral (3), disagree (2), and strongly disagree (1). The level of attitude was scored as: low (1-2), moderate (2-4) and high (4-6). Psychometric data have shown the questionnaire has reliability of (0.90) which was statistically acceptable. Data were analyzed through the application of statistical analysis (frequency, percentage, mean of score, and Pearson correlation coefficient) by using of Statistical Package of Social Sciences (SPSS) version 16.0 software. Relative to research ethical considerations, the National Institute of Health (NIH)/Office of Extramural Research has certified that both researchers have successfully completed the NIH web-based training course of protecting human research participants. The Institutional Review Board (IRB) at the Baghdad University/college of nursing that was represented by the scientific committee approved the study after submitting the study proposal.

III. Results

Table 1: Distribution of Faculties by their Socio-demographic Characteristics & Some Other Related variables

No	Faculties' characteristics	F	%	
1	University of:	Baghdad	21	47.7
		Babylon	9	20.5
		Kufa	6	13.6
		Kirkuk	4	9.1
		Others	4	9.1
		Total	44	100
2	Gender:	Male	24	54.5
		Female	20	45.5
		Total	44	100
3	Age:	30-39	20	45.5
		40-49	8	18.2
		50 ≤	16	36.4
		Total	44	100
4	Years of employment:	5-10	19	43.2
		10 ≤	25	56.8
		Total	44	100
5	Scientific degree:	Professor	4	9.1
		Assistant	12	27.3
		professor	11	25
	instructor	Instructor	17	38.6
		Assistant	44	100
		Total		
6	Scientific certificate:	M.Sc.	20	45
		Ph.D.	24	54.5

	Total	44	100
7	Certification:	Iraq Foreign Total	43 1 44 97.7 2.3 100
8	Years of experience:	< 5 5- 10 10 < Total	17 10 17 44 38.6 22.7 38.7 100
9	To occupy managerial post:	Yes No Total	32 12 44 72.7 27.3 100
10	Get e-learning course:	Yes No Total	20 24 44 45.5 54.5 100
11	To reinforce classic learning: with e-learning	Yes No Total	41 3 44 93.2 6.8 100
12	to be cognizant of e-learning: web sites	Yes No Total	35 9 44 79.5 20.5 100
13	Participate e-learning course:	Never 1-2 3 ≤ Total	24 18 2 44 54.5 40.9 4.5 100
14	specify teaching tasks:	Under-graduate Post-graduate Both Total	32 0 12 44 72.7 0 27.3 100
15	Job environment and e-learning:	Encouraging Discouraging Total	25 19 44 56.8 43.2 100

No: Number, F: Frequency, %: Percentage

The analysis of this table shows that the majority of faculties were from college of Nursing- University of Baghdad (47.7%), being male were the dominant gender among them (54.5%), 45.5% were aged from 30-39 years which is the highest percentage within the age group, 10 ≤ years of employment were represent the highest percentage of (56.8%), 38.6% of faculties are having scientific title of assistant instructor which forming the biggest category regarding scientific title, faculties with PhD were represent the high percentage (54.5%), certificate which has been gained inside the country was represent the high percentage than outside (97.7%), regarding years of experience < 5 and 10 < represent 38.6% and 38.7% respectively were the top categories in this variable, being chairman (to occupy post) shown in this table with high percentage of 72.7%, those who is not receiving e-learning courses during their academic study where forming the high percentage (54.5%), the majority of faculties (93.2%) were reinforcing classic learning with e-learning activities, 79.5% of them were to detect e-learning web sites, but the majority (54.5%) of them were never participated in e-learning courses, 72.7% of them were almost having teaching tasks dedicated mainly to Under-graduate students, and the environment in which they work was encouraging with high percentage (56.8%) toward application of e-learning in their educational institutions

Table 2: Attitudes of Faculty Members Toward E-learning Measured by Five Point Likert Scale

No	Item	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	M.S	SD	Severity
1	I think that it's very important to faculty members in our educational institutions (Universities) to be knowledgeable regarding e-learning technologies using.	36	7	1	0	0	4.80	0.46	H
2	I think that it's very important to students in our educational institutions (Universities) to be knowledgeable regarding e-learning technologies using.	29	12	2	1	0	4.6	0.70	H
3	I have the desire to take an orientation or educational course in respect to e-learning technologies using.	30	12	2	0	0	4.64	0.57	H
4	I have the desire to learn more about employing e-learning in	33	10	1	0	0	4.73	0.50	H

	teaching.								
5	I feel comfortable when I gain experience in the use of e-learning in teaching field.	34	9	1	0	0	4.75	0.49	H
6	I think it's very important to employ e-learning in the teaching process.	30	11	2	1	0	4.6	0.69	H
7	I wish that an educational seminar dedicated toward e-learning held by our educational institutions (Universities).	32	11	1	0	0	4.70	0.51	H
8	I think that e-learning contribute in solving many problems that facing traditional education e.g. (accommodate a larger number of students, reduce the cost of education).	20	19	2	2	1	4.3	0.92	H
9	I think that e-learning using makes teaching interested in terms of: diversification of teaching methods and modalities	26	12	6	0	0	4.45	0.73	H
10	I frequently encourage my colleagues (faculty members) regarding e-learning using in term of its various technologies in teaching process.	23	18	2	1	0	4.4	0.70	H
11	I feel a strong desire to use e-learning in teaching & learning process.	26	15	2	1	0	4.5	0.70	H
12	I have great confidence in myself as a faculty member when using e-learning	21	21	2	0	0	4.43	0.59	H
13	I think that I will do tangible success when I acquire sufficient experience in the use of e-learning in teaching process.	26	14	3	1	0	4.5	0.73	H
14	E-learning excites me and attracts my attention and interest to use it in teaching process.	23	15	5	1	0	4.4	0.78	H
15	I like to participate in the discussions around using e-learning in teaching process with my colleagues.	25	14	5	0	0	4.45	0.70	H
16	I think that e-learning helps me to diversify teaching methods and modalities.	26	14	2	2	0	4.5	0.79	H
17	I feel that e-learning actively increase my motivation for teaching.	25	12	5	2	0	4.4	0.87	H
18	I feel that e-learning increases students' motivation to receive knowledge and experience more than traditional styles of education.	26	9	6	2	1	4.3	1.02	H
19	I feel that e-learning increases the activity level of students during teaching process.	19	16	6	3	0	4.2	0.91	H
20	I feel that e-learning increases my authority and control over the teaching process to a large extent.	11	20	1 2	0	1	3.9	0.86	M
21	I feel that e-learning reduces the workload assigned to me as a faculty member.	13	18	4	6	3	3.7	1.23	M
22	I think that the certificate granted by the institutions of traditional education is more valuable than that accorded by e-learning ones.	18	8	1 2	4	2	3.8	1.21	M
23	I think that the virtual classes of e-learning will replace traditional classrooms in the future.	7	19	1 2	6	0	3.6	0.92	M
24	I think that e-learning helps in developing critical thinking abilities to the teacher and learner alike.	17	18	5	3	1	4.1	1	H
25	I think that e-learning contributes to the removal of time and space barriers that facing teaching and learning process more than traditional style of education.	21	16	4	3	0	4.3	0.89	H
26	I think that e-learning have a great potential in opening of effective and diverse communication channels with students. More than traditional styles of education.	20	19	3	1	1	4.3	0.87	H
27	I do believe in the possibility of the success of employing e-learning and its diverse technologies in nursing education.	23	14	6	0	1	4.3	0.88	H
28	I do believe in the possibility of the success of employing e-learning and its diverse technologies in an incapacitation of impact of the specialized teaching staff shortage in nursing education.	10	20	9	4	1	3.8	0.99	M
29	I do believe in the possibility of the success of employing e-learning and its diverse technologies in an incapacitation of impact of the specialized nursing staff shortage in health care sector.	12	11	1 3	6	2	3.6	1.17	M
30	I do believe in that e-learning have a great potential in opening of effective and diverse communication channels with Alumni. More than traditional styles of education in term of continuing education& Alumni education.	21	14	5	2	2	4.1	1.09	H

No: Number, M.S: mean of Score, SD: Standard deviation, H: High, M: Moderate

This table shows the mean of score which indicates that there is moderate attitude on Items (20, 21, 22, 23, 28, and 29) and there is high attitude among the remaining items in term of that the higher grade scoring of the questionnaire (MS), the greater highest attitude toward e-learning.

Table 3: Correlations between Attitude and Faculty's Characteristics

Correlation	University	Gender	Age	Years of employment	Scientific title	Scientific certificate	Certification	Years of experience	To occupy post	Get e-learning	To reinforce classic learning	Detect e-learning	Participate e-learning course	Having teaching tasks	Job environment
University	1.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gender	-.351*	1.000	-	-	-	-	-	-	-	-	-	-	-	-	-
Age	-.351*	.397**	1.000	-	-	-	-	-	-	-	-	-	-	-	-
Years of employment	-.137	.303*	.296	1.000	-	-	-	-	-	-	-	-	-	-	-
Scientific title	.225	-.391**	-.733**	-.599**	1.000	-	-	-	-	-	-	-	-	-	-
Scientific certificate	-.367*	.375*	.770**	.265	-.695**	1.000	-	-	-	-	-	-	-	-	-
Certification	-.127	-.139	-.154	-.151	.161	-.167	1.000	-	-	-	-	-	-	-	-
Years of experience	-.423**	.425**	.496**	.244	-.574**	.697**	-.163	1.000	-	-	-	-	-	-	-
To occupy post	.254	-.047	-.165	-.130	.143	-.363*	-.093	-.185	1.000	-	-	-	-	-	-
Get e-learning course	.283	.008	-.397**	-.090	.225	-.375*	-.167	-.098	.252	1.000	-	-	-	-	-
To reinforce classic learning	-.091	.115	.128	.153	-.071	.066	-.041	.080	-.166	-.115	1.000	-	-	-	-
Detect e-learning	.210	-.010	-.011	.199	-.077	-.216	-.077	-.197	-.058	.123	.086	1.000	-	-	-
Participate e-learning course	.044	-.156	.087	-.121	.096	.000	.131	-.199	-.262	-.313*	.077	-.048	1.000	-	-
Having teaching tasks	-.281	.056	.572**	.188	-.667**	.559**	-.093	.442**	-.146	-.261	.037	-.058	.175	1.000	-
Job environment	-.143	.126	.139	.065	-.214	.151	-.133	.241	-.019	-.310*	.310*	.127	-.039	.290	1.000
Attitude	.094	.053	-.060	-.117	-.214	.040	.145	-.061	-.041	-.040	-.193	.049	.251	.101	-.023

* Correlation is significant at the 0.05 level (2-tailed)

** Correlation is significant at the 0.01 level (2-tailed)

This table shows that there is strong positive relationship between scientific certificate with [years of experience (.697**) and having teaching tasks (.559**)], and there is strong positive relationship between age with [Scientific certificate (.770) and having teaching tasks (.572**)]. Furthermore, there is strong negative relationship between age with scientific title (-.733), beside that there is strong negative relationship between years of employment with scientific title (-.599). In addition, there is strong negative relationship between scientific titles with [scientific certificate (-.693), years of experience (-.574), & having teaching tasks (-.667)]. There is moderate relationship among remaining variables. Finally, the table shows also that there is no significant relationship between faculties attitude and the most variables

IV. Discussion

The main phenomenon that the current study tried to explore was: the attitudes of Iraqi faculty members toward e-learning at all governmental nursing colleges. Several important findings have emerged from this study. First, Iraqi nursing faculty attitude towards e-learning was moderately to highly positive, which reflects that whether consciously or even subconsciously, a significant percentage of them have already started to challenge themselves to accept Information and Communication Technology (ICT) in their routine instruction practice. ICT is one of the most fruitful advanced technologies that can be used to create a meaningful and effective educational environment. This finding was not surprising considering the fact that even in Iraq as a developing country; ICT has reshaped the man's life by pervading all angles and aspects of existence to the degree that it made the world as a small global village⁽⁹⁾. Education in general and nursing education in particular is no exception. The unlimited applications of the ICTs made the nontraditional education as the ultimate feasible choice to be embraced in order to achieve high quality education in a cost-effective way. They have the potential to address the expanding need for higher education both in the developed and developing countries. ICTs have the capacity to recreate the educational

environment to be attractive and fruitful for both the student and the faculty member⁽¹⁰⁾. ICTs have transformed the traditional and limited educational environment into a new advanced and more meaningful educational level⁽¹¹⁾. That is why; E-learning is a noticeable model of ICT applications in nursing higher education. It is becoming an essential and irreplaceable aspect of contemporary education in all applied sciences including nursing⁽²²⁾. All this explain the positive attitude of Iraqi nursing faculty member toward e-learning. Findings from other related studies were mixed in terms of faculty attitude toward e-learning. However, the majority showed positive attitude toward employing ICT in different angles of nursing education^{(2) (7) (8) (12) (13) (14) (15) (16) (17) (18)}. Conversely, other studies found that nursing faculty members showed negative attitude toward e-learning mainly due to change resistance⁽¹⁹⁾⁽²⁰⁾ knowledge deficit and lack of resources^{(2) (3)(6)}

Focusing on exploring higher decision-makers' attitude is beyond the scope of this study; however, in a centralized system like the one in Iraq, its paramount to achieve success and change the resistance front to support front⁽²³⁾. It is well supported that A human 's attitude depends on his/her belief or perceptions: meaning given by the individual about the thing used. That is, if e-Learning users perceive educational technologies favorably, they are more likely to speedily adopt digital tools than those who misperceive or under-perceive them⁽²¹⁾ (p. 44).

Working on attitude changing, higher education decision-makers should be oriented toward the fact that e-learning is not only about technology; it is principally about enhancing the educational experience. An advanced technology is only one aspect of its multi-faceted identity. The letter "E" in the term symbolizes more than electronic, for example it can be: "eloquent," "evolving," "everywhere," "ethereal," and "engaging,"⁽²⁴⁾

The second part of the discussion focused highlights the correlations between e-learning-centered attitude and faculty's characteristics. The study revealed that there was no significant relationship between faculty attitude toward e-learning and the most variables. Similar findings were found in other related studies^{(15) (17)}. These findings can be partially explained by the fact that the term "e-learning" itself is a multi-faceted not clearly defined; especially for the faculty members of a developing country like Iraq^{(25) (26)}

V. Conclusion and Recommendations

Despite the fact of the aforementioned positive attitudes and the encouraging level of Iraqi readiness to actively engage with e-learning applications, their attitudes towards e-learning must be persistently reinforced to empower effective adoption of e-learning as an ultimate premise of the sustainable development. This can be approached by providing the necessary infrastructures that includes; however not limited to, manpower, technical support and most importantly the enabling academic environment. Moreover, further studies under the governmental umbrella should be conducted in order to design tailored e-learning methodologies that can fit the Iraqi nursing educational arena and be able to make the necessary feasible modifications. Most importantly, nursing students' attitude toward e-learning, as a principal stakeholder in the educational equation should be considered. Therefore, it is highly recommended that a national survey to be conducted in order to highlight all the angles of the phenomenon under discussion, which enables a wise decision-making at the national level.

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