ORIGINAL ARTICLE

E-learning: Teachers Perspective towards Modern Tools of Teaching

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ABSTRACT

Background: E-learning and its comparison with the traditional educational system is a topic in vogue. the present study primarily focuses the inclination of traditional teachers towards modern educational tool i.e., E-learning at Liaqat University of Medical and Health Sciences Jamshoro (LUMHS).
Method: The study is based at Liaqat University of Medical and Health Sciences Jamshoro (LUMHS) and 80 faculty members of medical and dental college were included in the study. (QIEL) a questionnaire for introduction of E-learning at LUMHS was designed for the study. A pilot study was done before finalizing this questionnaire. Stratified random sampling technique was used and the results were analyzed through SPSS.
Results: 50 male and 30 female faculty members comprised the figure of 80 members in total. The difference between the scores of male and female on QIEL was non-significant. Ins spite of the fact that information is not extensively used at the university majority of the staff were in favor of the use of this technology at the University. After a healthy feedback from faculty SWOT analysis was done to ascertain the effectiveness of E-learning.
Conclusion: Study concluded that traditional educational system along with emerging new trends such as E-learning should be incorporated at LUMHS.
Keywords: E learning, tools of teaching,

INTRODUCTION

New methods of teaching and learning are in vogue now a day[1]. With the introduction of information technology, it is useless to say that teaching and learning are not affected by this technology. The positive use of information technology can help education from all corners[2].

Information technology has fulfilled the gaps which were left barren before the use of this technology. With the advent of new technology teachers are facing pressure to adapt new means and methods of cope with the emerging trends, failure to do can leave them behind the race[3].

Teaching and learning cannot be bounded in the traditional ways of teaching. Non formal ways especially in the waves of hugh changes need to be adopted, where it is supposed that after every two years the existing knowledge is doubled[4].

In the present world knowledge cannot be gained only by going to classrooms, it can be indirectly learned even at home with the use of modern gadgets[5].

During the last century changes has taken place with the relation of written word to daily life. In the recent past e-learning has dominated our education system in particular medical education[5]. Some take it challenging, some as boring, some as energetic and educational in addition to electronic.

New technologies bring anxiety, some take it to fasten their existing system, it requires innovation in response to changing context in which it is used. through this process information is updated instantly, massive data can be stored and retrieved, sharing of information among a large group of people is easy.

Diversely information technology has provided solution to healthcare teaching and learning. These technologies were never designed for educational purpose, but later on once adopted they revolutionized the current educational system and emerged as E-learning[6].

The integration of medical education with E-learning minimizes the role of teacher as the key person, rather he serves as a facilitator[7,8].

Text books are being transformed into computer files such as pdf format. Large books which require a lot of place for storage can be stored in a microchip which can be kept in a pocket. This represents a more advanced form of instructional methodologies.

E-learning can be applied in accordance with various ways of pedagogies. Technology is neutral for all and therefore applied to all the forms of pedagogies producing same results[9]. Students are encouraged to use E-learning as a major tool for their learning so that they take ownership of their learning[10].

The objectives of the current study are to perform SWOT analyze to E-learning at Liaqat University of Medical and Health Sciences, Jamshoro, to ascertain the level of satisfaction about E-learning among the teachers, to assess the inclination of faculty towards E-learning and to analyze the effectiveness of e-learning among the faculty members.

MATERIAL AND METHODS

This analytical study was conducted at the Liaqat University of Medical and Health Sciences, Jamshoro. Study population was teaching faculty of Liaqat University of Medical and Health Sciences, Jamshoro. A stratified random sampling technique was used, 80 faculty members of both genders were included. Regular faculty members of the institute were included. Visiting faculty members were excluded. A well-structured questionnaire was used to

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record the record the response of the participants. (QIEL) questionnaire for introduction of E-learning at LUMHS, which consisted of 35 items divided into 3 subscales

i. Teachers attitude toward computers.
ii. Teachers attitude / inclination towards E-learning.
iii. Institutional faculty available for E-learning.

The responses were scored on a 5 point Likert scale with stronglydisagree at one extreme (1) while strongly agree to the other end (5) and undecided (3) at middle. Demographic information was also recorded in another questionnaire (DIQ). Data analysis was done by SPSS.

RESULTS

Total 80 participants who participated in the study 50 were males and 30 were females. QIEL mean for males was 124.94& females was 125.52. For males mean subscale of teacher's attitude towards computer, E-learning and institutional facilities towards e-learning was 18.8, 91.23, 14.94 and for females was 19.49, 88.31 and 14.91 respectively.

These results do not point out any gross differences between male and female teachers about their perception for E-learning (Table 1).

For males and female faculty members mean, standard deviation and t-test was also calculated. For basic medical faculty the mean aggregate for QIEL for male is 121 and for females is 121.1, subscale in males is 18.1, 88.1 and 14.5 respectively and in females is 17.9, 88 and 14. The t-test score shows non-significant results (Table 2)

For faculty of medicine the mean aggregate for QIEL for male is 125.02 and for females is 124.01, subscale in males is 2.88, 9.58 and 3.89 respectively and in females is 2.5, 9.8 and 1.62. The t-test score shows non-significant results (Table 3)

For faculty of surgery the mean aggregate for QIEL for male is 124.9 and for females is 132.98, subscale in males is 3.11, 7.88 and 2.97 respectably. For female's subscale is 2.92, 6.99 and 7.326. The t-test shows non-significant results (Table 4)

For faculty of Dentistry the mean aggregate for QIEL for male is 125.9 and for females is 124.1, subscale for male is 2.47, 10.17 and 2.63 and for females is 1.29, 6.34 and 5.35 respectably. The t-test shows non-significant results (Table 5)

Overall male and female faculty members scored between 106 and 140, which indicate a strong support of E-learning in spite of the fact the currently university does not have an infra structure of computer technology.

SWOT analysis was conducted in the university, the opinion of teachers was recorded and later on summarized into 4 categories i.e. strength, weakness, opportunities and threats (Table 6).

Table 1: Standard Deviation, Means, and t-values for QIEL scores (Aggregate of all faculties)

QIEL Scores	Female (n=30)		Male (n=50)		t	P
	S.D	Mean	S.D	Mean		
Teachers' attitude toward computers	2.78	19.49	2.77	18.8	0.16	N.S*
Teachers' attitude toward e-learning	15.51	88.31	8.99	91.23	0.07	N.S*
Institutional Facility for e-learning	3.10	14.92	4.71	14.94	0.44	N.S*
Total QIEL	10.33	125.52	11.75	124.94	0.30	N.S*

Non-significant

Table 2: Standard Deviation, Means, and t-values for QIEL scores. (Basic medical sciences)

QIEL Scores	Female (n=30)		Male (n=50)		t	P
	S.D	Mean	S.D	Mean		
Teachers 'attitude toward computers	2.71	18.1	3.691	17.9	0.17	N.S*
Teachers' attitude toward e-learning	8.50	88.1	9	88	0.49	N.S*
Institutional Facility for e-learning	3	14.5	2.59	14	0.33	N.S*
Total QIEL	10.2	121	12.49	121.1	0.49	N.S*

Non-significant

Table 3: Standard Deviation, Mean and t-values for QIEL scores- Faculty of Medicine

QIEL Scores	Malen=13		Femalen=07		t	P
	S.D	Mean	S.D	Mean		
Teachers' attitude toward computers	20.01	2.88	19.12	2.5	0.38	N.S*
Teachers' attitude toward e-learning	90.39	9.58	91.39	9.8	0.42	N.S*
Institutional Facility for e-learning	14.89	3.89	14.01	1.62	0.45	N.S*
Total QIEL	125.02	11.20	124.01	11.44	0.44	N.S*

Non-significant results

Table 4: Standard Deviation, Mean, and t-values for QIEL scores (Faculty of Surgery)

QIEL Scores	Malen=12		Femalen=08		t	P
	S.D	Mean	S.D	Mean		
Teachers' attitude toward computers	20.19	3.11	20.02	2.92	0.35	N.S*
Teachers' attitude toward e-learning	89.11	7.88	98.95	6.99	0.004	N.S*
Institutional Facility for e-learning	16.19	2.97	15.99	7.326	0.46	N.S*
Total QIEL	124.9	8.95	132.98	10.98	0.04	N.S*

Non-significant results

Table 5:Standard Deviation, Mean, and t-values for QIEL scores (Faculty of Dentistry)

QIEL Scores	Malen=15		Femalen=05		t	P
	S.D	Mean	S.D	Mean		
Teachers' attitude toward computers	19.9	2.47	18.1	1.29	0.03	N.S*
Teachers' attitude toward e-learning	91	10.17	90.6	6.34	0.42	N.S*
Institutional Facility for e-learning	16.1	2.63	18.5	5.35	0.096	N.S*
Total QIEL	125.9	11.18	124.1	7.34	0.41	N.S*

Non-significant

Table.6: Consolidated summary of SWOT analysis

Strengths (Internal)	Weaknesses (Internal)
User friendly Easy to use. Facilitate learning Attention span increased Improved communication skills Research friendly Improves professionalism Flexible	Decreases comfort level Attention deficit Requires increased dependency Requires increased training period Strong infrastructure required Gross changes in communication skills
Opportunities (External)	**Threats (External)**
Requires strong technical background Positive reinforcement Improves standards of health Easy sharing Short time required to cover large topics Opportunity to many stake holders	Competitive environment Difficult to manage budget Evaluation is sensitive Gross dependency in instruments Leadership deficiency Easy understanding and implementation Barrier to new technology learning

DISCUSSION

Globally medical education is facing with new emerging trends in teaching and learning[11]. Medical teachers facing this revolutionary change have to cope with new trends failing to do they will be left behind from the main stream. Information technology have over whelmed all spheres of our life, E-learning is one of them[12,13].

E-learning is one of the modern educational tools which need to be incorporated in the educational system. The benefits appear to be far ahead of the threats related to this tools which is emphasized from some corners[14,15].

The current study is focused to explore the perception of medical teachers and their adaptability to modern educational technology particularly E-learning at Liaqat University of Medical and Health Sciences, Jamshoro.

The study is comprised of two parts, firstly the inclination of medical teachers toward information technology and in particular E-learning was analyzed along with IT facilities at the institution. Secondly, SWOT analysis was done at brain storming sessions at the university, to ascertain the strength, weakness, opportunities and threats of E-learning towards the institution and teaching faculty at large[16,17].

The combined effect of the study could be utilized by the university to ascertain the future direction for the faculty and students for the next five years or so. The frequency table is directed to positive direction indicating consistency of scores between male and female teachers. The table is clearly directed in support of E-learning by the faculty. Rating at mid-level was not seen, however, only few strongly supported E-learning.

Information technology is not available at large at this institution, even though without the availability of this technology teachers are largely in favour of this technology, which is a rare thing to be observed[18,19].

The community at the university is distributed between the use and not use of modern technology. The limitations of the use of modern IT technology particularly in education is under debate[20]. At present this technology is not available to everybody at the campus, this highlights the issue that majority of the faculty although interesting to use it, does not know how to use and get benefit from it. Another limitation of the use of this technology is the illegitimate use of this source, particularly to the new users[21,22].

An opportunity to access to ICT (information and communication technology) should be made available to all the faculty members, because majority of the senior faculty is quite alien to this technology. There was a time when Muslims were considered to be the leaders of the world and rest of the world use to follow them, it was the golden time of the Muslims for which we all are proud. Those communities who did not followed the Muslims at time were left behind and did not progressed. The same rule applies to us today, if ICT is not adopted by us today we will be out of the race and will be left nowhere.

All the faculty members were of the view that E-learning shall be adopted as a mode of teaching and it should be adopted at LUMHS as well[23,24]. However, it should be handled by skilled personal so that maximum benefit should be achieved. The drawbacks should be overcome be alternative teaching methodologies.

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