



The Influence of Technology on Students' Improvement as Future Doctors

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Abstract:

Technology nowadays is an urgent need for endless resources and learning materials. This research aims to use web based tools such as computer as innovative tool to increase students' enhancement to learn medicine at Jazan University. It examines how the combination of web based fosters higher education students' academic achievement to collaborate to master medical terminologies. The instrument used on this study are survey and observation. The survey investigates students' intrinsic and extrinsic motivation towards the using technology in learning English as a foreign class. In addition, the observations were based on students' achievements in classroom and social networks. The study adopted the descriptive, analytical and empirical methods. A survey of 15 items was distributed to 50 medical students who enrolled in the second semester in 2015. It's analyzed by (SPSS). The using of technology in education and applying such web based instruction in EFL classes increases students' motivation and retention in learning English and mastering medical terminology by caring and sharing information and ideas in collaboration. The analysis showed a great influence of internet on the students' motivation by satisfying their needs and interests toward learning English as a foreign or second language in generally, and accurate pronouncing medical terminologies in particularly.

Keywords: Internet, technology, terminology, computer, improvement, web-based.

1.0.Introduction:

In response to the needs of the medical students' improvement as future doctors, there is a need for medical schools to improve the quality of students' instruction, and increase the time allocated to browse internet and adopt web-based instruction tools. Khan (1997) defined web-based instruction (WBI) as "a hypermedia-based instructional program which utilizes the attributes and resources of the World Wide Web to create a meaningful learning environment where learning is fostered and supported" (Khan 1997:6)[4]. It is internationally recognized that internet provides huge information available 24/7 online. Therefore, students can use these different types of technology to enhance their achievement and solve medical problems by using their smart phones, tabs, iPods, laptop, computers or any other tools. Although technology is no longer an option but a necessity. Through technology, they can keep in touch with their teachers, community and their patients later on when become doctors.

1.3. Significance of the Study:

The study will sum up the results and the recommendations based on its findings, which are expected to be a great value to the authorities of education, English language instructors and decision makers. It will pave the way to students and –the researcher hopes– it will change their negative attitude towards the English language into motivating and interesting. This study instructor and students work together in all aspects of educational environment.

2.0. Literature Review:

Technology can be used to satisfy the needs of different EFL medical students. Particularly, computer is used as "a powerful tool for language learning, partly for its ability to access and deliver multimedia material" Szendeff, J.(2007:169)[8]. Therefore, a computer is considered as an educational tool specially, it gives individual attention to the and it replies to him by enhancing personal interaction and participation as Kenning and Kenning (1997:3)[3] state that, "The computer promotes the acquisition of knowledge, develops the learner's critical facilities, demands, active participation and encourages vigilance" classes

that consist of students with varying abilities and previous knowledge, and technology can help a staff member address these differences. Technology also allows students with different abilities to work on their own pace and time. In addition, the use of technology improves a good chance for future doctors to live in the same classroom at the same time by sharing their ideas and available information on different websites in a collaborative way. They can help each other and learn from each other solving complex medical problems. As technology utilization have grown fast in all aspect of life, the possible strategies to transmission learning and planning teaching materials have increased. It can also help teachers to involve students online activities (Smith,2006) [7] that can be design in the form of small groups that allow students work together. Web-based instruction can offer a variety of ways through the curriculum and provides students a healthy learning environment, thus students can learn effectively in their own space and time with a sense of control over their learning.

According to Krashen (1988:22) [5]that motivation has two kinds communicating to the ability of a second (ESL) or a foreign language (EFL) acquisition: First, the integrative motivation is which deals with social interaction of ESL/EFL students when they like to participate of social society speech or local community. It means a strong desire in students when they study a target language, they want to be socialized with people who speak such language and they are familiar to connect with such community and love their culture, civilization and a targeted language used. In other word, it the integrative motivation relies on a great desire in practicing second or a foreign language and being relating to stay in such a second or a foreign that using a target language. A person can practice a language effectively and gain a fluency by practicing a language with full of interaction and satisfaction among those people who speak it, because he or she will be more motivated using a language and sense of proficiency. (Saville- Troike, 2012:101)[6] Second, the instrumental motivation means a monetary reward for students to learn a second or a foreign language in order to improve their professional or working opportunities, getting respect and authority, having access to empirical and practical information, or just to get better degrees on their college (Saville-Troike, (2012:101)[6].

Some people say that technology made us and as social Technology will not be solutions for complex medical problem but it help medical students to communicate effectively and immediately to solve their complex problems in a collaborative way. In the same time they can keep in touch as human beings in real life situations. Technology helps a medical student to make a good decision in a right time by using available data online. They can learn more through internet.

2.1. Positive Effect of Technology:

According to Reeves & Reeves (1997) technology played an important role in increasing student's motivation. So, teachers need to engage students in active learning through using web-based instruction to motivate student by creating effective engagement (as cited in Wang & Reeves, 2007)[9]. Howard Gardner is an American Professor at Harvard University identified that multi-media can provide seven intelligences by which students learn: (1) Verbal/linguistic intelligence (2)Logical/Mathematical intelligences (3) Visual/ Spatial intelligence (4) Bodily/Kin esthetic intelligence (5) Musical intelligence (6) Interpersonal intelligence (7) Intrapersonal intelligence.[2]

2.2. Negative Effective of Technology:

- Students may have weak interpersonal relationships due to heavy use of internet all the time.
- Students rely on websites to do their tasks and activities.
- They may become less readers and thinkers.

3.0. Research Methodology:

In order to find answers to the research questions and find out the practical solutions of the problems and also the practicality of technology in classroom so as to motivate students in life situation, the paper will adopt the empirical method and analytical methods by involving EFL medical students at Jazan University.

3.1. The Participants:

The participants of the study are 50 EFL medical students of the second semester, course code 164-prep3 at Medial College (PYP) from Jazan University in Saudi Arabia in the first term 2015. All students who participated in this study are Saudi and their native language is Arabic. Their average age is 20.

3.2. Research Instrument:

The researchers use three instrumental tools for this study are survey and experiments. These instruments were used as tools for collecting evidence and justification for questions. The instrument used in this study is a 5 point Likert Scale ranged from 'Strongly Agree' to 'Strongly Disagree' to gather information on participants' integrative and instrumental motivation through technology media. There are 15 questions in the survey.

4.3. Data Collection:

The survey was distributed to the 50 students during regular class session which time they were given clear instruction and explanation in both mother tongue a targeted language for filling out the questionnaire. The researcher qualitative and quantitative standard of research.

4.4. Research Questions:

- To which degree can technology instruction affect students' integrative and instrumental motivation?
- Are students well-motivated to learn medical terminologies through technology?
- To what extent does technology increase chances for medical students to be a knowledgeable as doctor in future?
- To what extent can technology motivate students in solving complex medical problems?

5.5. Assumptions:

- Applications of technology develops students' intrinsic and extrinsic motivation
- Students may motivate through technology in learning medical terminologies.
- The internet enables medical students to communicate effectively in a survival digital era.
- Technology creates a place for students to interact in collaboration with their instructor and with each other outside of the classroom.
- Students can be involved through technology in solving complex medical problems

5.6. Data Analysis:

This study presented the statistical analysis for overall results of Influence of Technology on the medical students' achievement that apply in teaching and learning English as a foreign language at medical college. This paper will be in the form of tabular charts and graphs, and the analysis will be done in the form of the comparison of the percentage of groups learning through technology for students as future doctor. On based data analysis, it is found that, students can learn from each other more than the teacher to understand medical topics and improve their achievement and academic performance anywhere and anytime. The teacher's continual observation shows that technology applications have a positive effect on the students' integrative and instrumental motivation and they have better interaction, communication in the class and on their achievement.

		Statistics						
		Item 1	Item 2	VAR0003	Item 4	Item 5	Item 6	Item 7
N	Valid	50	50	50	50	50	50	50
	Missing	10	10	10	10	10	10	10
	Std. Error of Mean	.15290	.14958	.16816	.15649	.17925	.18106	.15649
	Std. Deviation	1.08119	1.05772	1.18907	1.10657	1.26749	1.28031	1.10657
	Variance	1.169	1.119	1.414	1.224	1.607	1.639	1.224
	Range	4.00	4.00	4.00	4.00	4.00	4.00	4.00
	Minimum	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	Maximum	5.00	5.00	5.00	5.00	5.00	5.00	5.00

Table (1) Statistics of Standard Deviation and Mean for items(1-7)

		Statistics						
		Item 8	Item 9	Item 10	Item 11	Item 12	Item 13	Item 14
N	Valid	50	50	50	50	50	50	50
	Missing	10	10	10	10	10	10	10
	Std. Error of Mean	.15649	.18375	.17464	.15290	.14569	.06857	.19762
	Std. Deviation	1.10657	1.29929	1.23487	1.08119	1.03016	.48487	1.39737
	Variance	1.224	1.688	1.525	1.169	1.061	.235	1.953
	Range	4.00	4.00	4.00	3.00	4.00	1.00	4.00
	Minimum	1.00	1.00	1.00	2.00	1.00	4.00	1.00
	Maximum	5.00	5.00	5.00	5.00	5.00	5.00	5.00

Table (2) explains the Statistics of Standard Deviation and Mean for items(8-14)

The data based shows that all the respondents agreed to use computer only for understanding their regular class topics as shown in table (3) item(1) about 80% of the participants agreed on using computer for learning and utilizing technology. That means they can use computer for other purposes such as entertainment, exploratory than education only. They can use computer for formal and informal learning on their own ways.



Item 1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	2	3.3	4.0	4.0
	Disagree	3	5.0	6.0	10.0
	Neutral	5	8.3	10.0	20.0
	Agree	17	28.3	34.0	54.0
	Strongly Agree	23	38.3	46.0	100.0
Missing	Total	50	83.3	100.0	
	System	10	16.7		
Total		60	100.0		

Table (3) shown computer as a useful tool in learning English medical terminology

Item 2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	3	5.0	6.0	6.0
	Disagree	2	3.3	4.0	10.0
	Neutral	2	3.3	4.0	14.0
	Agree	25	41.7	50.0	64.0
	Strongly Agree	18	30.0	36.0	100.0
Missing	Total	50	83.3	100.0	
	System	10	16.7		
Total		60	100.0		

Table(4) shown: using technology helps students to understand difficult medical terminology

VAR0003

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	4	6.7	8.0	8.0
	Disagree	2	3.3	4.0	12.0
	Neutral	8	13.3	16.0	28.0
	Agree	18	30.0	36.0	64.0
	Strongly Agree	18	30.0	36.0	100.0
Missing	Total	50	83.3	100.0	
	System	10	16.7		
Total		60	100.0		

Table(5) shown: using technology improves one's medical knowledge

Item 4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	2	3.3	4.0	4.0
	Disagree	4	6.7	8.0	12.0
	Neutral	6	10.0	12.0	24.0
	Agree	18	30.0	36.0	60.0
	Strongly Disagree	20	33.3	40.0	100.0
Missing	Total	50	83.3	100.0	
	System	10	16.7		
Total		60	100.0		

Table (6) Shown Technology increases knowledgeable chances students

Relating to the above tables about 86% of students agreed to the item (2) (*using technology helps students to understand difficult medical terminology*). It means that most of EFL medical students understand complex medical terminology by using technology which help them to have better achievement. In item(3), (*shown: using technology improves one's medical knowledge*) the majority of participants 74% and item(4) (76%) agreed to study medical terminology through technology so as to make them more professional in their future.

Item 12

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	2	3.3	4.0	4.0
	Disagree	2	3.3	4.0	8.0
	Neutral	2	3.3	4.0	12.0
	Agree	12	20.0	24.0	36.0
	Strongly Agree	32	53.3	64.0	100.0
Missing	Total	50	83.3	100.0	
	System	10	16.7		
Total		60	100.0		

Table (5) shown the use of technology for good learning medical terminologies

item 13

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	18	30.0	36.0	36.0
	Strongly Agree	32	53.3	64.0	100.0
	Total	50	83.3	100.0	
Missing	System	10	16.7		
Total		60	100.0		

Table (6) implies items technology more interesting than old mode

Regarding the participants' perceptions of the using technology items (12) (the use of technology for good learning medical terminologies) item 13 (technology work more interesting), item14 (Studying English through technology is fun) and item 14 (I enjoy learning medical terminology through technology), these results showed positive perception of this effectiveness on their integrative motivation). The participants' mean score on the using web-based materials variable was quite positive using technology. Participants reported that using technology increased their motivation, discussion, performance, and encouragement according to the following percentage (88, 100, 58 and 72 % respectively). In addition, They can learn medical terminology effectively through twitter, chatroom and other technology tools by sharing their experiences and information to solve complex medical problems anywhere and in any times freely.

The15 items in the survey are for instrumental motivation and integrative motivation and with frequencies and percentages that students are more motivated intrinsic motivation than extrinsic motivation. From this results, it is clear that learning through technology has a great effect on the students' motivation and better outcomes in learning medical terminologies in real world.

Technology will be not solutions for complex medical problem but it help medical students to communicate effectively and immediately to solve their complex problems in a collaborative way. They can learn more through internet. It is clear that using technology in education is enjoyable and stimulating students to learn more on their own space and time. From this results, it is clear that learning through web-based has a great influence on the students' motivation and better outcomes in learning medical terminologies and they will be better in their future. At Jazan university, some teachers use the technology for improving and increasing students' motivation and interaction inside EFL medical classes, but still there are some teachers stick with traditional teaching mode. As motivation, wishes and attitudes establish a vital part in acquiring a language, medical English.

4.1. Findings and Conclusion:

In the light of the findings of this study, the researchers concluded that:

- ❖ From the data analysis, results indicate that the technology has a great influence on students' enhancement and solving complex medical problems.
- ❖ Using web-based materials generate a higher degree of interaction among EFL medical students.
- ❖ Using technology materials such as computer and other devices are better than using traditional methods in learning a language specially for medical terminologies.
- ❖ Medical students have positive thoughts toward using web-based instruction in classrooms.
- ❖ EFL medical students have positive experiences of communicating effectively and collaboratively through web-based instruction.

Recommendations:

Medical students should be trained well and being prepared for digital world. Most teachers at Jazan university are familiar with processing learning medical terminology. They can email or web browsing but they don't involve students in multimedia projects or online interactive activities. Szendeff (1997:17) [8]

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