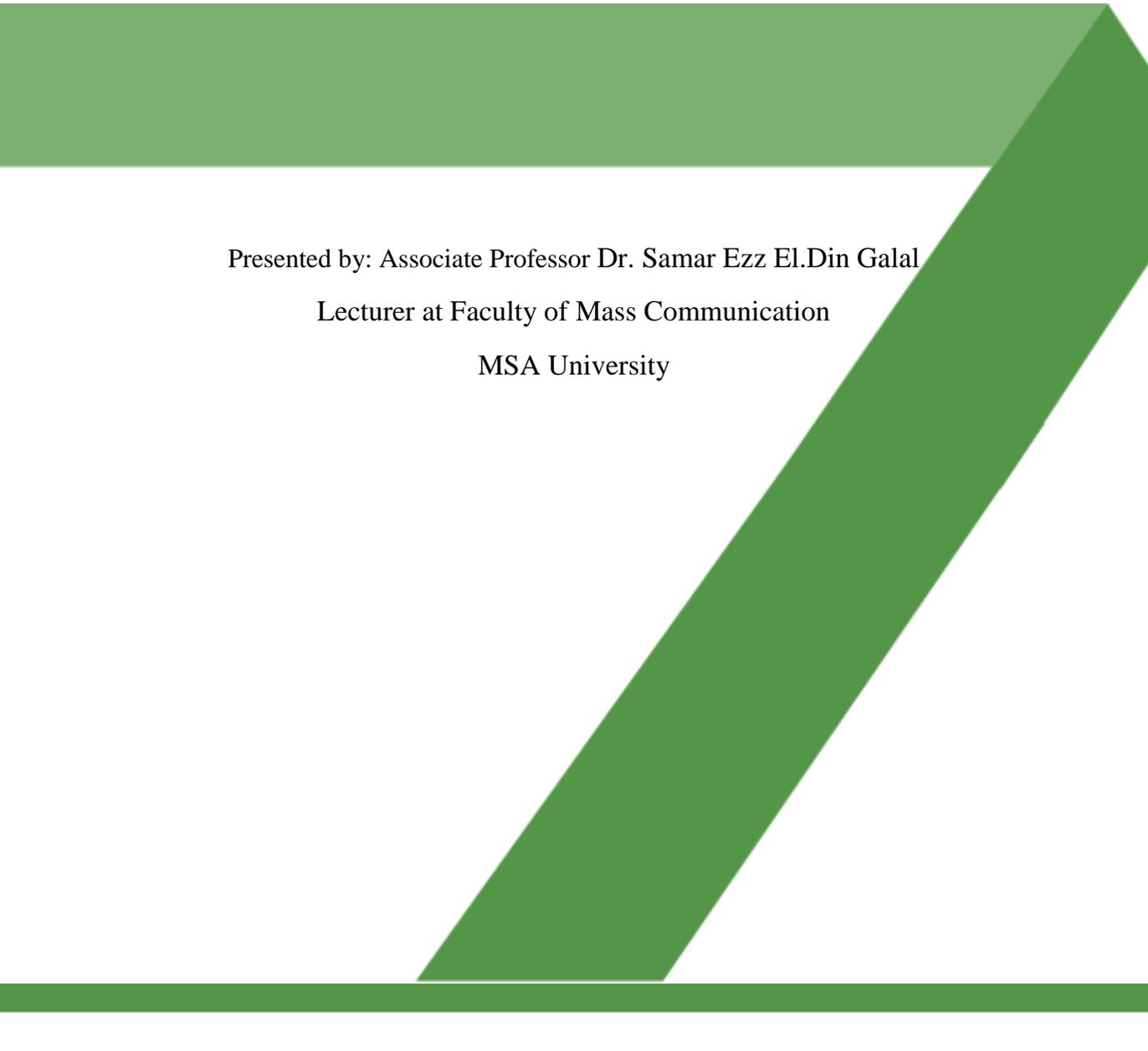




“Usage of technology and its impact on the academic motivation and performance of Mass Communication Students”



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## **Introduction:**

Technology is around us everywhere and everything we do. Nowadays, students everywhere depend on technology and use it daily. Technology plays an important role in their routine life. They use technology for entertainment, searching, learning, and getting new information.

Education should adopt technology and improve its system, to cope with young and new generations and attract their attention and interests. And to cope with all academic systems all over the world.

There are several compelling reasons for incorporating technology into the instruction of journalism and mass communication. As technology plays an increasingly important role in our lives, it becomes vital and essential to expose journalism students to technology.

Some scholars concluded in their studies that any faculty of Mass Communication, especially Journalism departments does not adjust new technology and apply new methods is ignoring and does not understand the rapid change in the environment.

Technology helps and supports people to connect. Also, people can discuss and share ideas. It also helps to develop new communities of inquiry and exploration.

This paper focus on the importance of technology usage in teaching especially on higher education, and its impact on students of Mass Communication.

Some of the Educational institutions started to depend on Ebook system. Students study their curriculum from E-books through the internet, they do not have any printed publications to study from. As a student, all that you need are a computer and internet.

Academic teaching staff and educators should make the application of integrating new methods of technology with the academic curriculums meaningful and expressive to students.

The Teaching staff has to work hard to update their knowledge and skills in the education process and use technology in teaching. Also, they have to cope with their students and decrease the knowledge gap of technology between them.

Using technology will call for a huge and main change in the performance of students. Students will find interesting materials that will encourage him to attend classes. Also, new techniques in teaching technology can help in changing difficult courses too easy and simple ones.

### **Types of technology that can be used in teaching:**

- **Media sharing:** to exchange and create messages and media content with audience and peers.
- **Websites:** Web-based services that allow users access and create and edit pages.
- **Online games and virtual worlds:** a themed atmosphere that makes interaction with other internet games player from different places all over the world.
- **Blogging:** A type of websites that designed by bloggers (freelancers), where they can post their opinions, and fans can comment.
- **Digital manipulation:** Publishing images, photos, video and audio often involves editing of that content in some fashion, such as simply for length or cropping to fit a screen or other media space.
- **Chat in courses:** chatting between groups through the internet and chatting rooms.

- **Syndication:** Users can ‘subscribe’ in websites so that they are automatically notified and knew of any changes or updates to message content.
- **Social networking:** Websites that help friends and groups to interact with each other’s and socialize.
  - **Recommender systems:** Websites that combined and tag user preferences for items and thereby make recommendations.

### **How can technology help in solving Education problems?**

#### **A) First education problems:**

##### **1) Students’ problems:**

- Using traditional ways of teaching may let students feel bored to attend classes.
- Students who have visual and hearing problems.
- Students who have poor accommodating.
- Students who suffer from lack of concentration.

##### **2) Curriculum problems:**

- Long and boring curriculums, cannot be finished during the semester.
- Theoretical parts longer than practical ones.
- Difficult materials that sophisticated the education chain.

##### **3) Education institutions:**

- Full capacity of classes.
- Wasting of time during vacations.
- Some institutions do not apply credit hours system.

## **B) Second technology solutions:**

### **1) Students' problems:**

- Using technology may lead students to feel more interest to attend their classes.
- Animation and music during tutorials can help students who are differently disabled.
- Technology can change difficult information to be easier and simpler.
- Technology can grab students' attention and keep them alert.

### **2) Curriculum problems:**

- Try to shorten the curriculum by watching tutorials on the internet.
- Increase practical work grades.
- Technology can change difficult materials to be easier and simpler.

### **3) Education institutions:**

- Computers can help students to interact with their instructors.
- Students can refresh their minds or brain by using computers during long vacations.
- Technology help students to cover missing points that they have lost during their semesters.

## **Benefits of using technology in class:**

The Internet helps students to have an immediate access to answer easily what is in their textbooks. Students try to find answers through the internet. They simply say "let's google it". internet helps instructors and give them a good opportunity to

find out the best answers for students, and for students' internet give them the right and proper guidance to find the correct answers and sources.

Using internet inside the class let teachers or instructors show students how to find best sources to get the right information.

Flexibility is also a great movement in the using technology, and students who trained on using technology in classes today will be more adapted, and much easier for them to using when they got graduated and enter the job market.

The importance of using technology in the educational process helps students to have digital literacy and increase and improve their elements and skills in their work.

Merged learning method keeps students focused for a long period of time without being exhausted. It also makes them feel more excited and eager to know more especially in practical courses.

Technology new techniques, like smart boards, tablets, learning websites, are always encourage students and improve their attendance. Also, improve the ways of students' access to get the information and interact with it. Technology help students to engage with their instructors for a long time.

But technology still faces obstacles and barriers in order to be implemented in educational institution globally. The cost of it is really high not all institution can afford to provide it in their classes.

**Objective:**

To know the impact of using technology in Mass Communication schools and departments on the academic motivation and performance of the students, and how it effects on their achievements.

### **Problem statement:**

Students and young generations use technology in all fields, so academic and education systems should cope with this new technique. AS it's a good chance to apply new methods and technology systems inside classes to attract students. And also, prepare them to join the new and advanced markets when they got graduated.

### **Operational Definitions:**

1. Performance: it is the outcome of results and conclusions showing the efficiency of production of a certain process.
2. Educational Productivity: education industry that measures the production of students work and achievements.
3. Motivation: to be a motive or inspired by something towards something or someone.
4. Interest: grabbing attention, showing curiosity or being attracted to something.
5. Education: knowledge, literacy, skills, culture that is taught to students in educational institutions like schools and universities.
6. Curriculum: learning contents of education contains, activities, documents, materials, and syllabus of the education courses.
7. Internet: The international network that connects computers together.
8. Computer: An electronic device that has a high memory storage, where people can finish their work easier and faster, by input data and receive it as output results.
9. Application: A kind of software or a program that can install on your device that can be used in a certain situation.

10. Computer literacy: the elements and skills of the individual that can help him to use the computer and understand its technology, in order to help him to finish his work and duties faster.

11. Online: to connect with servers of another computer on internet

## **Literature review:**

The researchers tried to get examples of studies that show the importance of technology in general. According to (Mohammed T.Al-Hariri, 2017), this study was conducted to investigate the possible relationship between students' use of technology and their achievements and performance, this study applied at five health colleges of the University of Dammam, on students study physiology courses

This study observed a significant relationship between students' use of technology and their achievements in health colleges. The study concluded that the devices that have been used heavily were: laptops (50%) and phones (42%) followed by tablets (7%) and desktop computers (0.5%). This paper shows that usage of technology at health colleges increased students' achievements and let them understand their courses better and knew the new methods and medical techniques.

While (Khe Foon Hew, 2013) this paper discuss how technology helps students in schools to understand their classes and their curriculum better and how visual education is important. The use of such techniques would be useful to educators interested in fostering student learning through advanced ways of learning.

Articles that merely described anecdotal studies such as student perception or feeling toward learning using technology or studies that relied on student self-report data such as student questionnaire survey and interview were excluded.

The results showed that students who exposed to new learning techniques that have been applied from their educators, get more interested in classes and also have a good academic performance. While traditional ways of teaching let students feel so boring and sometimes they lose interests to continue their classes.

For, (Ru- Chu Shih 2011) the study wanted to examine the effect of integrating Facebook and peer assessment in English writing courses. The study will use a

blended teaching approach consisted of part of the semester using class instructions only, and the other part use class instruction plus peer assessment and Facebook.

The sample was 23 students, major English department, at a technological university in Taiwan. The study applied to 18 weeks of English writing classes. The students divided into three groups. The study applied both qualitative and quantitative approaches. Research instruments included pre-test and post-test of English writing skills, tools of the study were, a self-developed survey questionnaire, and in-depth student interviews.

The findings suggest that integrate peer assessment and using Facebook in learning English writing can be interesting and effective for college-level English writing classes. Students can improve their English writing skills and knowledge more than using class instruction alone. In addition, this Facebook integrated instruction can significantly enhance students' interest and motivation.

Educators depend on technology to improve their curriculum, especially in media and information system courses. Also, to help the students to enter the market easily after they got graduated from college

According to (El Maniee, 2007), the study aimed to know how educational institution depends on education technology. Also, aimed to know the level of technology usages. The study applied to some of the educational institutions in Saudi Arabia.

The study concluded that, weakness in educators and teaching skills towards using new technology in their works. Using internet is still in its primitive way. Education institutions use only PowerPoint and electronic dictionary in their academic work and do not know the other techniques.

According to (El Lamiee, 2007), the study aimed to know if schools in El Khobar use a computer in their educational system or not and to what extent. The sample

was (99) from teaching staff. The results showed that education institutions use technology effectively and to a high extent. Computers help a lot in achieving lots of work. The teaching staff has good training sessions that reflect on their work and process. There is a good desire from the staff to change for the better.

And for (ElHazmy, 2005), the study aimed to know the usage of academic staff and university students in (Makkah El Mokrama) city for the internet in their study. Also, to know what are the barriers and obstacles that face them while they are using the internet. The sample was (249) teaching staff, (472) students.

The study concluded that (66%) from the teaching staff use the internet in teaching, and (44%) from the students. Also, the study showed that there is a correlation between using the internet and the major (type) of the faculty. There is another correlation between using the internet as students, and its existence in the university and lack of having computer labs.

According to (Daloo,2004), this study aimed how education institutions in Jordan applied technology. What are the obstacles and barriers that faced them during this application? Two surveys distributed on (351) educator.

The results showed that the institutions succeeded in applying technology in the administration field more than the academic one. Also, those institutions still have lots of work to achieve a good level in using technology even in administration work.

The study recommended that the interviewees should take advanced training sessions and courses in how to use technology in their work.

According to (Brynildssen, 2003), this study aimed to know how Technology Use in the mass communication field and how journalists and media practitioners depend on it, the study showed that using technology can help in incorporating different majors together like digital Journalism department, this department

combines between two majors in mass communication which are Journalism and Broadcasting.

And by broadening their categories and integrating the new with the traditional, educators better prepare journalism students for both a workplace and a world that are being reshaped by technology.

As for (Lucinda Lea,2001), this study aimed to know the Impact of technology on teaching and learning on students, the study applies a survey of students of MTSU faculty to know the importance of instructional technology in teaching and learning while pointing out areas for further development, results of the survey showed that the awesome majority of MTSU faculty and students believe in the value of instructional technology.

## **The Theoretical framework of the study:**

### **First: Herzberg's Two-Factor Theory (Contactzilla 2014):**

This theory was developed by Frederick Herzberg during the 1950's. The scientist wants to examine two important factors of motivation which are: Motivator factors and Hygiene factors.

Frederick analyzed sample was 200 employees (engineers and accountant). He asked them about their job satisfaction, and about what they feel towards it. Herzberg concluded that there are two important factors influence those employees. Those two factors are satisfaction and motivation.

1. Motivator factors: all the factors that can lead to motivate and satisfied employees to enjoy their work and to produce more. Like, feeling familiar, enjoy working and to feel that he is appreciated.

2. Hygiene factors – Absence of important factors can lead to dissatisfaction and lack of motivation. These factors can lead to dissatisfaction and a lack of motivation if they are absent. Examples include salary, good relation with managers, company rules, awards, benefits.

According to Herzberg's observation, although hygiene factors and motivator lead motivation but every factor work independently and alone.

While motivator factors increased employee satisfaction and motivation, the absence of these factors didn't necessarily cause dissatisfaction. while the presence of hygiene factors didn't appear to increase satisfaction and motivation but their absence caused an increase in dissatisfaction.

Motivator factors in work atmosphere include the following: achievement, advancement recognition, responsibility, and the possibilities of growth.

While Hygiene factors include the following: company policy, work conditions, relationship with peers, supervisors, relationship with supervisors, salary, personal life, status, and job security.

In applying Herzberg's theory to this study, students' performance directly related to the outcome of technology experience and may be considered motivators or satisfiers (success and understanding).

On the other hand, the absence of technology and using traditional teaching methods may be considered similar to hygiene factors or dissatisfies that may cause dissatisfaction but not satisfaction.

### **Second: Diffusion of Innovation Theory:**

The researcher applied the theory of diffusion of innovation to help and explain how the new technology will be adopted by the mass communication staff in order to spread the use of this new technology for improving students' performance. Such a theory will help us to understand how the mass communication staff can use technology in order to improve students' academic performance and motivation.

Diffusion theory says that people adopt a new idea and understand it only after going through the following five separate stages:

1. Awareness: The individual has been exposed to the idea.
2. Interest: The idea has to arouse the individual.
3. Evaluation: The individual must consider the idea as potentially useful.
4. Trial: the individual tries out the idea of others.
5. Adoption: this represents final acceptance of the idea after having successfully passed through the four earlier stages.

The researcher will explore the phenomena of the new technology in mass communication in relation to the performance of the mass communication students' academic performance, and see whether the adoption of the technology will have an impact on the performance of or not.

### **Questions of the study:**

The main research question is:

#### **What is the effect of technology usage on students' performance and motivation?**

Four sub-questions arose from the main one:

- 1- What is the effect of Technology on Students' Self-efficiency?
- 2- What is the effect of Technology on students' active learning plans?
- 3- What is the effect of Use Technology on Students' achievement Goals?
- 4- What is the effect of Use Technology on Learning Environment Motivation?

### **Method and material:**

The researcher conducted a survey and applied it on (200 students) in Faculty of Mass Communication at (MSA university) in Egypt to know the effect and impact of using technology on their motivation and academic performance.

The survey distributed on different classes in the faculty of mass communication with the help of the instructor to explain the questionnaire carefully to students.

## Results:

The main research question is

**What is the effect and impact of technology usage on students' performance and motivation?**

To answer the research's main question, the 4 sub- question resultants from it should be answered as follows:

**first sub -question**

**1- What is the effect of Technology on Students' Self efficiency?**

Table (1):

Items	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Main	s- deviation	k	Rank
I succeeded in relating previous knowledge to newly acquired on by using technologies	196	12	3	1	1	4.64	0.632	489.911	1
	92.01 %	5.63%	1.40%	0.46 %	0.46 %				
I am confident about understanding difficult concepts.	194	15	2	1	1	4.62	0.728	505.103	2
	91.07%	7.05	0.93	0.46 %	0.46 %				
I am sure that I can do well on tests.	171	34	4	3	1	4.53	0.681	399.12	3
	80.28%	15.96	1.87	1.40	0.46 %				
helps get the expect information	166	40	3	2	2	4.41	0.870	337.23	4
	77.93	18.77	1.40%	0.93	0.93				
help discussion in the class	157	45	8	1	1	4.33	0.945	292.96	4.33
	73.70	21.12	3.75	0.46 %	0.46 %				

The results showed that relating previous knowledge to the new one on became in the first rank with main (4.64), and s- deviation (0.632), and this may return to students have the desire to increase their knowledge and information trying to attribute the new information with the old that they already restore it in their memories, while understanding difficult concepts, by using technology became in the second rank with main (4.62), and s- deviation (0.728), and this is the second step after enriching their old

information the new ones may contain difficult terms so the students here use technology in order to understand and get more explanation, and by technology technologies, doing well in exams is in the third rank with main (4.53), and s-deviation (0.681).

Then, for helping to get the expect information, it became in the fourth rank with main (4.41), and s- deviation (0.870), finally the last rank is Using technology help discussion in the class with main (4.33), and s- deviation (0.945).

## Answering the second sub -question

### 2- What is the effect of Technology on students' active learning plans?

Table (2):

Items	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Main	s- deviation	k	Rank
By using technologies, I can get information from different sources	188	20	3	1	1	4.47	0.841	386.52	1
	88.28	9.38	1.40	0.46 %	0.46 %				
help me learn new concepts	185	18	7	2	1	4.38	0.766	315.5	2
	86.85	8.45	3.28	0.93	0.46 %				
Things I learn from technology Help interact with colleagues in class	154	49	5	3	2	4.35	0.770	291.9	3
	72.30	23.00	2.34	1.40%	0.93				
help me learn from others and reflect on what they know.	149	54	6	2	2	4.27	0.827	257.7	4
	69.95	25.35	2.81	0.93	0.93				

The results showed that using different sources to get information took the highest rank with main (4.47) and s- deviation (0.841), and here may return to the importance of diversity and different perspectives and how students want to check different sources in order to get credible information then technology helping in knowing new concepts is in the second rank with main (4.38) and s- deviation (0.766), this may shows that students have the desire and want to expose to new concepts and understand more about new terms and concepts.

And the results also so showed that interactions with colleagues inside the class, came in the third rank with main (4.35) and s- deviation (0.770), and for Using technologies help me learn from others and reflect on what they know, with main (4.27) and s- deviation (0.827), this may show the importance of tutorials on internet as students try to get experience from others.

### Answering the third sub -question

#### 3- What is the effect of Use Technology on Students' achievement Goals??

Table (3)

Items	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Main	s- deviation	k	Rank
technologies help me in solving a difficult problem	138	55	10	5	5	4.23	0.933	229.16	1
	64.78	25.82	4.69	2.34	2.34				
technologies are useful for organizing learning.	125	75	10	2	1	4.19	0.902	214.02	2
	58.68	35.21	4.69	0.93	0.46 %				
help me to study at home on weekends and before class meetings	109	90	8	4	2	4.09	0.952	192.9	3
	51.17	42.25	3.75	1.87	0.93				
help me in attaining a good score in a test	102	94	10	5	2	4.09	0.949	177.52	4
	47.88	44.31	4.69	2.34	0.93				
increase confidence about the content in courses	100	103	8	1	1	3.98	0.983	149.9	5
	46.94	48.35	3.75	0.46 %	0.46 %				

The results showed that knowing how to solve difficult problems took the highest rank with main (4.23) and s- deviation (0.933), and this result may show how students depend on this type of technology in order to achieve their goals for example in answering their assignments or get writing a paper or apply a case study, then organize learning with main (4.19) and s- deviation (0.902), and for studying at home and during weekends came in the third rank with main (4.09) and s- deviation (0.952), and this shows how students depend on technology when they are out of campus or could not reach their professor , so they take web.2.0 as a guideline during weekends or while they are studying at home.

The results also showed that by attaining a high score took the fourth rank among others achievements goals, with main (4.09) and s- deviation (0.949), and here we can find some students try to practice by answering samples of pass papers or samples of tests on internet in order to train themselves before their exams inside their classes at last increase depth in courses material and content with main (4.09) and s- deviation (0.949).

## Answering the fourth sub –question

### 4-What is the effect of Use Technology on Learning Environment Motivation?

Table (4)

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Main	s- deviation	k	Rank
By using technology, the teacher pays attention to me.	151	55	5	1	1	4.45	0.680	220.4	1
	70.89	25.82	2.34	0.46 %	0.46 %				
the teacher does not put a lot of pressure on me by using technologies	142	61	7	2	1	4.44	0.745	345.2	2
	66.66	28.63	3.28	0.93	0.46 %				
the teacher uses a variety of teaching methods	138	66	6	1	2	4.39	0.719	324.3	3
	64.78	30.98	2.81	0.46 %	0.93				
I am willing to participate as the content is exciting and Changeable.	140	60	8	3	2	4.37	0.755	310.5	4
	65.72	28.16	3.75	1.40%	0.93				
the students are involved in discussions	134	69	5	4	1	4.33	0.766	283.7	5
	62.91	32.39	2.34	1.87	0.46 %				

The results showed that the teacher pays attention to me took the first rank with main (4.45) and s- deviation (0.680), the result may show that students want to prove themselves in front their instructors and also want to have more confident in themselves, so they try to enrich their knowledge by using this type of technology. Then, the teacher does not put pressure on me came in the second rank with main (4.44) and s- deviation (0.745), and here it seems that technology help the student to

cope with his instructor and not to feel stress in class, and for the teacher uses a variety of teaching methods took the third rank with main (4.39) and s- deviation (0.719), students always want to see that their instructors use different technique in order to succeed in grabbing their attentions and not feel bored in class, changing in ways of explanation engage students until end of classes.

The results also showed that willing to participate as the content is interesting, took the fourth rank, with main (4.37) and s- deviation (0.755), this changeable will increase the motive at students to participate and grab their attention to participate in class as they feel excited and know new information by interesting ways, for students are involved in discussions came in the fifth rank, with main (4.33) and s- deviation (0.766) , all the above help the student to participate in class and also to be excited to attend his classes.

The four sub-questions helped a lot in answering the main question of the study, and to know the effect and impact of technology in increasing the performance of students. It also shows that using technology in teaching and studying helps students to be more motivated to ask and know. It also encourages students to participate in class.

Students become eager to expose to others experiences and learn from them. Also, understanding new concepts and know more about new terms and concepts.

## **Conclusion:**

- Technology has a great impact on students' motivation and performance to learn, they try to relate previous knowledge to newly acquired, understand difficult concepts as Self-efficiency .
- Technology has a great impact on students' motivation and performance to learn, they try to can get information from different sources too, learn new concepts, interact with colleagues in class, to learn from others and reflect on what they know, as active learning plans.
- Technology helps me in solving a difficult problems technology has a great impact on students' motivation and performance to learn, to organize learning, to study at home on weekends and before class meetings, to achieve their goals.
- Technology has a great impact on students' motivation and performance to learn, in order to let the instructors, pay attention to them, not to have a lot of pressure from the instructors, as Learning Environment motivation.
  
- Usage of new technologies affects the improvement of education and enhances the educational process. It also gives a good chance for students and educators to share information and ideas together.
- Technology helps in knowing and applying new teaching methods and strategies. Educators can use technology to change the core of the curriculum and to improve the courses materials in order to attract the students and let them feel more interest.
- The results showed that technology has a great impact on students' performance and motivation.
- Educational technology gives a good chance for students to exchange knowledge through the internet or chat rooms. Students can interact with their instructors or foreign instructors through E-learning .
- Technology considers a tool that helps students communicate with the global world with least money cost.

## Reference:

- Brynildsen, Shawna, Technology Use, and Instruction. ERIC Digest. ERIC Clearinghouse on Reading English and Communication Bloomington IN, ED477608, December 2003.
- Conole, G. (2010) 'Review of pedagogical models and their use in e- learning
- Conole, G., McAndrew. and Dimitriades, Y. 2010/forthcoming) 'The role of CSCL pedagogical patterns as mediating artefacts for repurposing Open Educational Resources' InF Pozzi and D. PersicoEds) Techniques for Fostering Collaboration Online Learning Communities: Theoretical and Practical.
- Crook, C., Cummings, J., Fisher, T., Graber, R., Harrison, C., Lewin, C., Logan, K., Luckin, R. and Oliver, M. (2008), Web2.0 technologies for learning: the current landscape opportunities, challenges, and tensions.
- DiBlas, N., and Poggi, C. (2007). European virtual classrooms: building effective “virtual” educational experiences, *Virtual Reality*, 11 (2): 129 – 143.
- Elgort,I.(2007)'Using, wikis as a learning tool in higher education. In ICT: providing choices for learners and learning'. Proceedings Ascilite Singapore, 2007.<http://www.ascilite.org.au/conferences/singapore07/procs/elgort.pdf>
- Ellison, N. and Wu, Y. (2008) 'Blogging in the Classroom: A Preliminary Exploration of Student Attitudes and Impact on Comprehension'. *Journal of Educational Multimedia and Hypermedia*. Vol,17: 99- 122.
- Fitzgerald, R. and Barrass, S., Campbell, J. Hinton, S., Ryan, Y. and Whitelaw, M. and Bruns, A. and Miles, A. and Steele, J., and McGinness, N. (2009) (2009). Digital learning communities (DLC): Investigating the application of social software to support networkedlearning. Australian Learning and Teaching Council ISBN: 978- 1- 74088- 296- 5. 52pp
- Gráinne,Conole, and Dr Panagiota, Alevizou, A literature review of the use of Web 2.0 tools in Higher Education, A report commissioned by the Higher Education Academy, g.c.conole@open.ac.uk; p.alevizou@open.ac.uk, The Open University Walton Hall, Milton Keynes, uk, August 2010.
- Greenhow, C., Robelia, B., and Hughes, J. (2009) Web2.0and classroom research: What path should we take now? *Educational researcher* 38(4), pp 246-259
- <https://contactzilla.com/blog/5-psychological-theories-motivation-increase-productivity/>
- Khe Foon Hew, Wing Sum Cheung, use of web 2.0 technologies in K-12 and higher education: the search for evidence- based practice, *Educational Research Review* Vouln 9, June 2013, pp47-64
- Kieslinger (2009) 'An OpenVirtual Learning Environment for Europe's Higher Education.[http://www.icamp.eu/wpcontent/uploads/2009/01/icamp\\_final\\_public\\_report.pdf](http://www.icamp.eu/wpcontent/uploads/2009/01/icamp_final_public_report.pdf)
- Lucinda Lea, Maria Clayton, Barbara Draude, and Sarah Barlow, The Impact of Technology on Teaching and Learning A survey of faculty and students at MTSU verified the importance of instructional technology in teaching and learning while pointing out areas for further development, *EDUCAUSE QUARTERLY*, 2, 2001.
- Mohammed T.Al-Hariri, (2017) Impact of students' use of technology on their learning achievements in physiology courses at the University of Dammam, *Journal of Taibah University Medical Sciences*, Volume 12, Issue 1, February 2017, Pages 82-85.
- Ravenscroft, A. (2003), 'From conditioning to learning communities: implications of fifty years of research in e- learning interaction design', *ALTJ*. 11(3), 4- 18. Redecker, C. (2009) Review of Learning 2.0 Practices: Study on the Impact of Web 2.0 Innovations on Education and Training in Europe (23664EN).
- Recker, M., Dorward, J.and Nelson, L.M. (2004) 'Discovery and use of online learning resources: case study findings. *Educational Technology and Society*93–104.
- Ru- Chu Shih, can web 2.0 technology assist college students in learning English writing?intergrating facebook and peer assessment with blended learning, *AJET*, vol 27, no 3 , 2001
- Ruthankoon, R., Ogunlana, S.O, Testing Herzberg's Two-Factor Theory in the Thai Construction Industry. *Engineering, Construction and Architectural Management*, 2003, Vol.10, Iss. 5; pg. 333-342.

- Singer, J. B., Craig, D., Allen, C. W., Whitehouse, V., Dimitrova, A., & Sanders, K. P. (1996). Attitudes of professors and students about new media technology. "Journalism and Mass Communication Educator", 51(2), 36-45. [EJ 532 093]
- Warschauer, M. Technology and Social Inclusion: Rethinking the Digital Divide. Cambridge, MA: MIT Press, 2003
- wecommunication.blogspot.com.ng/2014/07/digital-media-ethics
- Weinberger, D., Everything is miscellaneous: The power of the new digital disorder. New York Times Books, 2007.
- Wiley, D. and Henson, H. 'An initial characterization of engagement in informal social learning around MIT OCW Proceedings of the 7<sup>th</sup> international conference on Learning sciences, pp. 832 – 837, ISBN:0- 8058- 6174- 2, 2006.

#### المراجع العربية:

- الحازمي ، البراق أحمد ( ٢٠٠٥ م ) ، " واقع استخدام الشبكة العالمية (إنترنت) لدى أعضاء هيئة التدريس وطلاب كليات المعلمين بمنطقة مكة المكرمة " ، رسالة ماجستير غير منشورة ، مكة المكرمة ، جامعة أم القرى ، كلية التربية .
- المنيع ، محمد بن عبد الله ( 1429هـ ) ، " مجالات تطبيقات التعليم الإلكتروني في الإدارة و الإشراف التربوي " ، بحث مقدم إلى الملتقى الأول للتعليم الإلكتروني ، وزارة التربية و التعليم ، الإدارة العامة للتربية و التعليم بمنطقة الرياض ( 1429/5/21-19هـ ) ، الرياض
- اللامي ، عوض بن علي ( 1429هـ ) ، " واقع استخدام تطبيقات الحاسب الآلي في الإدارة المدرسية من وجهة نظر مديري و وكلاء المدارس الثانوية بمحافظة الخبر " ، رسالة ماجستير غير منشورة ، البحرين ، الجامعة الخليجية ، كلية التربية ، قسم القيادة و الإدارة التربوية .