

Relationship between e-Learning Strategies and Educational Performance Efficiency in Universities from Senior Management Point of View

Samia A. M. Abdalmenem¹, Samy S. Abu-Naser², Mazen J. Al Shobaki³, Youssef M. Abu Amuna⁴

¹Department of Management and Financial Business, Al-Quds Open University

^{2,3,4}Department of Information Technology, Al-Azhar University, Gaza, Palestine

¹Samia_edu@hotmail.com, ²abunaser@alazhar.edu.ps, ³mazen.alshobaki@gmail.com, ⁴yabuamuna@gmail.com

Abstract: The study aimed to identify e-learning strategies and their relationship for increasing the efficiency of educational performance in foreign and Palestinian universities (University of Ottawa, University of Munster, Suez Canal University, Al-Azhar University, Islamic University, Al-Aqsa University). The analytical descriptive approach was used for this purpose, and relying on the questionnaire as a main tool for data collection. The study society is from the senior management, where the number of senior management in the universities in question is 206. The random stratified sample was selected, and the Statistical Program of Social Sciences (SPSS) was used for the analysis. The study found that there is a significant relationship between e-learning strategies and increasing the efficiency of educational performance in universities. The study also showed that senior management in Palestinian universities does not care about providing the appropriate budget for e-learning. The study also showed that senior management in Palestinian universities does not help to adhere to the performance standards set by the university. The study recommended that the senior management of Palestinian universities should provide an e-learning budget and encourage employees to continue using e-learning strategies. It also recommended that senior management should focus on developing measures that would help to increase efficiency of performance.

Keyword: Educational Performance, Performance Efficiency, E-Learning Strategies, Universities.

1. INTRODUCTION

It can be said that the importance of e-learning is reflected in improving the quality of higher education and its development through the improvement of methods and teaching techniques to cope with the general development of modern international technology, and education is required to search for methods and educational models to meet many challenges.

E-learning contributes to the development and development of universities; it has the ability to deliver the content of educational programs, activities and courses online. E-learning strategies vary in order to suit learners' abilities, diversity of goals, and decisions. The strategies used are defined through e-learning, namely how education is provided to learners. E-learning includes the design of different learning strategies that help achieve the objectives. E-learning strategies include a number of procedures; to provide e-learning content that helps learners to achieve educational goals with great skill and professionalism.

The increase in the efficiency of educational performance is linked to the ability of universities to employ e-learning to improve the educational and research process, as there are scientific studies that proved that employing e-learning strategies in an effective manner can contribute effectively to the development of the educational process and enhance communication between the parties of the educational process and research. The increasing spread of telecommunications, and the information technology of the variables affecting universities, which reflected their effects on university performance.

2. THEORETICAL FRAMEWORK

2.1 E-learning strategies

The process of education is a part and an important component of any institution's progress. This process comes through the effectiveness or impact of individuals and employees in the organization through values and systems that are capable of constantly bringing about organizational change and improving the performance of the organization based on the utilization of expertise. [1]

With the spread of modern technologies in the era of technological development, methods and tools have emerged that have helped to raise the efficiency of university education and research. E-learning has become an important part of the educational process. The different strategies of education, support, and adapted in the optimal use in the educational process.

(Alkarzon, 2016) defines it as an activity that uses technology with the Internet and facilitates learning and education, and the Internet is easily associated with content on a computer. [2]

As Brown & Prak (2014) teaches, eLearning is an approach to learning and developing a range of learning methods using digital technology, which offers opportunities for distribution and enhanced learning.[3]

Resenbeg (2007) points out that when talking about e-learning strategies, we must realize that they are originally the result of general education strategies, and stressed that e-learning strategies are one of the forms of education strategies that greatly affect the performance and efficiency of an educational institution. [4]

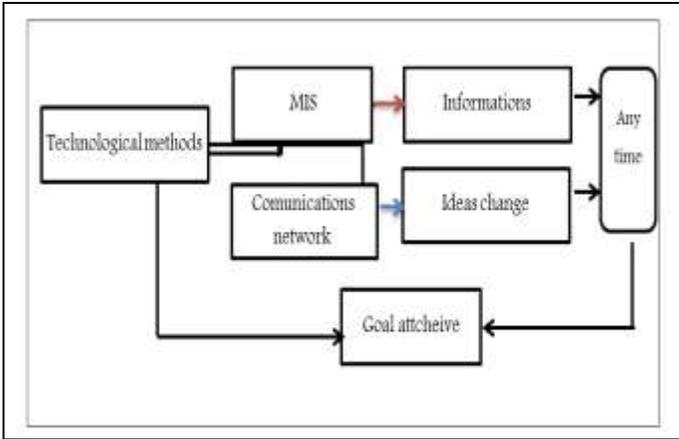


Fig.1. E-learning Concept

The e-learning strategy seeks to promote transformational approaches in teaching and learning, and curricula that have a positive impact on students, faculty, employers and other stakeholders, connect learners, create a sense of belonging, and enable them to participate through the core value of collaboration across a group. A wide range of societies through dialogue and electronic interaction.

It is a pattern or plan to integrate the main objectives of Internet-based teaching through a mentor to access digital content to contribute to organizing learning through e-learning. [5]

The concept of e-learning strategies can be summarized as follows:

- A. The concept of e-learning strategies is not an e-learning term, but an integrated approach through which educational and research performance can be improved.
- B. The application of the concept of e-learning strategies and programs is linked to the vision and mission of the universities, which contribute to the achievement of their objectives and the goals of the dealers together.
- C. The application of programs and methods of using e-learning strategies leads to employee satisfaction, which contributes to improved capacity and willingness to perform in universities.
- D. Is the source of attracting and attracting students who believe that the educational process is for them fun and easy, and helps them to innovate, which in turn contributes to increase the efficiency of performance as indicated by the focus group.

The objectives of e-learning strategies are as follows: [6]

- A. Helps faculty members and their assistants prepare teaching material for students, compensate for lack of experience in each other, and provide them with advanced skills.
- B. Addresses the lack of academic and training cadres in some educational sectors through virtual classrooms, and achieves full interaction, directly with teacher and learner.
- C. It works on a variety of tools. The new educational system assumes different learners in tendencies, attitudes, preparations, and desires, and thus provides

different ways to access the information and tools in a variety that suits the difference in the qualities of the learners.

- D. Helps to achieve equal educational opportunities, where the learner can overcome the obstacles of time and distance if the adoption of education on the Internet, as e-learning is able to provide.
- E. Helps students search for information by communicating with peers, searching databases online, and through social media.

Types of e-learning strategies

The types of e-learning strategies are divided into several types:

- **The strategy of electronic lecture** is a way to provide facts and information where the teacher through this strategy to work continuously on the development of educational content to suit the needs of students, and can be provided through multimedia e-learning such as: audio files, or video files ... etc. [7]
- **E-learning (interactive private education strategies):** The content is divided into small modules linked to each other in multiple ways, with which the learner interacts and relies. The learner's transmission of parts of the course depends on answering the questions through self-tests. [8]
- **Working groups (collaborative learning):** Students work together to achieve an educational goal, such as writing a research paper or searching for a concept on the web, and works to connect learners with other teachers, educators, scientists, and researchers, And cooperation for appropriate purposes. [9]
- **Electronic discussion:** It is one of the most important tools of communication and interaction in the e-learning environment, through which it can achieve many of the goals, where students reach the highest levels of knowledge, especially analysis, installation and evaluation, and students add their personal experiences to each other. [10]
- **E-Brainstorming:** A method designed to stimulate students' thinking through e-learning. [11]
- **Solving electronic problems:** To help the learner to be able to understand the basic concepts of knowledge in solving the educational problems facing him, and help the learner to guide his behavior and abilities, and used in research. [12]
- **Electronic simulation (imitating)** the real reality, such as representing a conciliator or a group of real situations that are difficult for the learner to study on reality, discover them, identify their results due to their cost, achieve safety and eliminate the danger. [13]
- The process in which an interactive environment is created in applications based on computer technology, networks, and multimedia, and enables the trainee to achieve the objectives of the process.

- **Self-directed education electronically:** It is a digital technique, which is conducted through individual dialogue between the teacher and the learner only without the participation of the other learners, through a bilateral discussion on the Internet or e-mail, the learner presents problems, and the teacher helps the learner. [14]
- **E-Project Strategy:** One of the most appropriate strategies that can be used in the training and preparation of students is the possibility of employing and using electronic web-based tools for collaboration, participation in the implementation of these projects and the use of all electronic resources. [15]
- **E-Deployment Strategy:** the use of computer hardware and systems for innovation, creativity, page preparation, production of model pages, and complete and complete output. [16]
- **E-Learning Strategy:** A strategy or teaching formula that depends on the student's responsibility for the forms and patterns of learning and decision-making with the teacher's help. This formula is negotiated with the teacher's help until the student reaches a decision about learning. [17]
- **E-Learning Collaborative Strategies:** An interactive learning method that allows students to engage with each other and partners with them in building their learning of the program for electronic scheduling skills, either in synchronous or asynchronous meetings.

It has been classified by some specialists in e-learning strategies as follows: [18]

1. Electronic dumping
2. Multimedia strategy and
3. The scientific e-statement
4. Scientific e-experimentation
5. Cooperative Education
6. Electronic training
7. Self-education.

2.1 The efficiency of educational performance

The educational performance aims to identify the level of mastery of the knowledge, science and skills through the educational programs that contribute to raising the level of performance of students in all areas and provide the educational process to raise the efficiency of academics in the use of teaching strategies to improve and develop the educational process. [19]

It includes all the teacher's teaching practices in order to achieve the desired goals and includes all the activities and educational procedures that are carried out to improve the educational performance of the teacher to empowerment, and the achievement of students are the most important indicators of educational performance. [20]

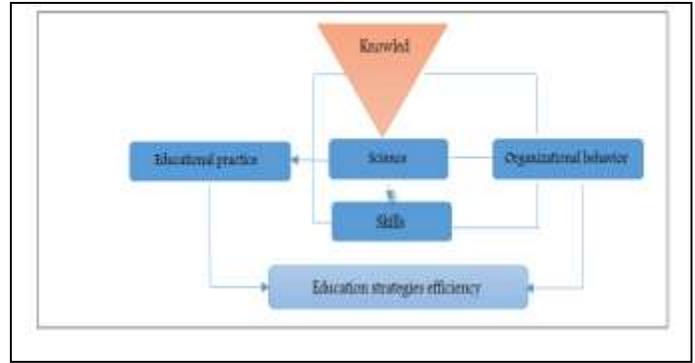


Fig.2. Educational Performance

The performance of educational institutions is of increasing interest in all developed and developing societies. Everyone is working to improve the performance of their educational institutions because of its impact on the rates of economic and social development.

The educational performance is important for the benefits that contribute to the development of the educational institution, as follows: [21]

A. Educational performance and its role in the coordination and development of knowledge:

- The teacher interacted positively with the latest developments and changes in the world in accordance with the philosophy of education and its objectives, and adopting scientific knowledge and modern methods.
- Helps the teacher to train students on self-education, lifelong learning.
- Helps the teacher to discover his students' knowledge, information, creativity, and material integration.

B. Educational performance and its role in the development of thinking skills:

- Supports classification which includes the mental processes of analyzing, installing, etc., trying to interpret the event, providing what supports this explanation of justifications, and providing evidence that supports performance.
- Instructs students to set standards for their opinions and foundations, and learns how to evaluate arguments.

C. Educational performance and its role in the development of higher education and university:

- Focus on the development of basic sciences, the use of modern educational systems, the trend towards multiple studies and disciplines that keep up with global developments, and the expansion of the format of technological institutes.
- Evaluating the experience of the private universities that were established to be the tributaries of the official university education, follow-up of the educational process, the evaluation of the students, the completion of the teaching staff, the apparatus, and the private establishments.

- The importance of educational performance is seen in the Meral model from two angles: the main method of education, and the type of educational content. [22]

In the theoretical framework, the following question is answered:

Q1: What is the level of efficiency of educational performance in foreign and Palestinian universities from the point of view of senior management?

The following hypothesis is tested:

H1: There is a relationship between the strategy of e-learning and the efficiency of educational performance in educational institutions from the point of view of senior management.

3. RESEARCH DESIGN

3.1 Methodology of the study

The methodology of the study and its procedures is a major focus through which the practical aspect of the study is accomplished. The data required to conduct the statistical analysis are obtained in order to reach the results that are interpreted in the light of the study literature on the subject of the study.

3.2 Study population and sampling

The research society includes: (senior management) in the Palestinian and foreign universities, which are: (Islamic University, Al-Azhar University, Al-Aqsa University, University of Munster, University of Ottawa and Suez Canal University) as shown in table (1).

Table 1: Distribution of the society of the study

No.	The University		Total
1.	Palestinian Universities	Islamic University	106
2.		Al-Azhar University	65
3.		AL-Aqsa University	64
4.	Foreign Universities	Moneyster University	75
5.		Ottawa University	95
6.		Suez Canal University	38
Total			443

The random stratified sample was used by the university to reach (206) individual. A sample of 30 samples was chosen to test the internal consistency, structural honesty, and stability of the questionnaire.

3.3 Research instrument

The research instrument was prepared by studying the administrative literature and previous studies related to the subject of the study. A number of university professors and administrative supervisors were consulted in determining the dimensions of the questionnaires and their paragraphs. In light of the opinions of the arbitrators, some of the clauses of the questionnaire were modified in terms of deletion, addition, and modification, so that the questionnaire will be finalized. Gradient (1-5) was used to measure respondents'

responses to the questionnaire sections. The questionnaire consisted of two dimensions consisting of (19) paragraphs (strategic planning - efficiency of educational performance) as shown in the following table (2).

Table 2: Dimensions and paragraphs in the questionnaire

Fields	Paragraphs
E-learning strategies	12
Electronic Planning Strategy	7
The efficiency of educational performance	5

Source: Researchers' preparation

3.4 Validity and reliability assessment

The truth of the questionnaire was confirmed in two ways:

- A. **The truth of the arbitrators:** "The truth is apparent": The study tool was presented in its initial form to a group of arbitrators consisting of (24) of specialists in the academic, administrative, professional, statistical and educational technology. The researchers responded to the opinions of the arbitrators and the necessary deletion and modification In the light of the proposals submitted, and thus the questionnaire was finalized.
- B. **Internal consistency:** The consistency of the internal consistency means the consistency of each paragraph of the questionnaire with the area to which this paragraph belongs.

Table 3: Content Validity

No.	e- Learning Strategies	Pearson Co.	Sig.
1.	Strategic Planning	0.918**	0.000
2.	The efficiency of educational performance	0.856**	0.000

* The correlation is statistically significant at $\alpha \leq 0.05$.

** The correlation is statistically significant at $\alpha \leq 0.01$.

The stability of the research questionnaire was verified by the Cronbach's Alpha Coefficient and the midterm fragmentation and the results were as shown in Table (4).

Table 4: Alpha Cronbach and the midterm split

No.	Areas	Paragraphs	Cronbach's coefficient alpha	Half-split Test
3.	Strategic Planning	7	0.933	0.938
4.	The efficiency of educational performance	5	0.947	0.918
	E-Learning Strategies	12	0.968	0.981

The results shown in Table (4) show that the value of the Cronbach alpha coefficient is high for axes, with values ranging between (0.933 and 0.947). The results for split-half was similar to the Alpha-Cronbach method, ranging between 0.918-0.938. This means that the questionnaire is accurate in

measuring what is being measured and that the stability coefficient is high and fulfills the research objectives.

3.5 Data analysis and discussion of results

The relative weights of e-learning strategies in foreign and Palestinian universities were determined from the point of view of senior management, as shown in table (5)

Table 5: The arithmetic mean, the relative weight, and the value of (T) of e-learning strategies from the point of view of senior management

Field	Universities	SMA	S.D.	R.W.	T- test	P.V.
E-Learning Strategies	Foreign Universities	3.43	0.76	68.57	4.593	0.000
	Palestinian Universities	2.89	1.19	57.8	0.32	0.314

Table (5) shows that the mean of e-learning strategies from the point of view of senior management in foreign universities (3.43) is higher than the default average (3). The value of test t is equal to (4.593), which is statistically significant at (0.01). This is due to the availability of material and human resources, continuous follow-up to the development of the technological education process, and the development of e-learning strategies.

The average of E-learning strategies (2.89), the value of test t is equal to 0.32 with statistical significance (0.314), which is greater than 0.05, thus increasing the average of e-learning strategies from the point of view of senior management in Palestinian universities is not statistically significant, researchers attribute this to financial situations, crises, and inability to implement strategic plans.

The efficiency of educational performance was determined from the senior management point of view using the arithmetic mean, standard deviation, relative weight, test value "T" and "Sig" as shown in the following table:

Table 6: The arithmetic average, the standard deviation, the relative weight, the value of T test for the efficiency of educational performance (higher management)

No.	The efficiency of educational performance	SMA	S.D.	R.W.	T- test	P.V	Rank
1.	The incentives contribute to increased efficiency of performance.	3.48	1.33	69.65	6.11	0.00	1
2.	Helps to meet university performance standards.	3.34	1.22	66.74	4.63	0.00	3
3.	Stimulates faculty members to make good decisions.	3.48	1.24	69.50	6.45	0.00	5
4.	E-learning allows for flexible monitoring of educational performance.	3.44	1.31	68.87	5.69	0.00	2
5.	E-learning programs contribute to raising the performance of faculty members.	3.48	1.33	69.65	7.05	0.00	4
The efficiency of educational performance		3.43	1.22	68.65	2.30	0.000	

The value of (T) of the table at the level of significance of 0.05 about 1.98

A. The senior management agreed that the relative weight of the points of the efficiency of educational performance was paragraphs (1,3,5) ranked first with a relative weight of 69.65%, 69.50% and 68.65%

respectively, mean (3.48) and test value (6.11, 6.45, 7.05), and the probability of (sig.) = (0.000), which is less than the significance level (0.05). Therefore they statistically significant at the level of significance ($\alpha \leq 0.05$), indicating that the average response to this paragraph has increased above the degree of neutrality to a moderate degree, which means that there is considerable approval by the respondents on this paragraph. The researchers attributed this to the interest of universities in the educational system, which reaches the highest quality in all fields and all disciplines.

- B. While the second paragraph (helps to adhere to the standards of performance set by the university) ranked last with a relative weight (66.74%), mean (3.34), test value (4.63), and probability value (Sig) = (0.00), which is less than the level (0.05). Therefore, this is a statistically significant at the level of significance ($\alpha \leq 0.05$), indicating that the average response to this paragraph has increased the degree of neutrality to a moderate degree. The researchers want to involve staff in setting goals that universities seek to achieve.
- C. In general, the views of the senior management agreed on the axis of educational performance efficiency and obtained an approval ratio with an average of 3.43 indicating that the average response level of this axis has increased to a neutral level (3) where it exceeded the middle class. The researchers attributed this to the fact that universities seek to increase the efficiency of the achievement of educational tasks, and put them on top of their priorities, to reach the institutional excellence in the light of global technological development.

The relative weights of dimensions of the efficiency of educational performance from the point of view of senior management in foreign and Palestinian universities:

Table 7: The arithmetic mean, the standard deviation, the value of (T)

The relative weight of the efficiency of educational performance

No.	Field	University	SMA	S-D	R.W	T- test	P.V
1.	efficiency of educational performance	Foreign Universities	3.88	0.69	77.52	3.52	0.00
2.		Palestinian Universities	3.30	1.31	65.94	3.33	0.00

Table (7) shows the following:

- A. Table (7) shows that the relative weight (77.52%) and the arithmetic average of the efficiency of educational performance from the point of view of senior management in foreign universities (3.88) is higher than the default average (3), where the value of the test (T) is equal to (3.52) and is statistically significant value at (0.00). The researchers attributed this to the fact that the senior management sets out a strategic plan that sets out the objectives of the universities and the methods of upgrading the universities' technological skills, as it strives to reach high quality outputs in e-learning.

B. For the Palestinian universities, the relative weight was 65.94%, the mean of the efficiency of the educational performance was 3.30 and the value of T was 3.33 and the statistical value was 0.000.

This is due to the physical conditions experienced by the universities of the Gaza Strip because of the poor economic situation in the Gaza Strip and the number of unapproved universities, which affected all aspects of life in the universities, which in turn affected the efficiency of educational performance.

3.6 Hypothesis Test

H1: There is a significant relationship between the strategies of e-learning and increase the efficiency of educational performance and research in universities.

To answer this hypothesis, correlation coefficients and the probability value (Sig) were used to find the relationship and the level of significance from the point of view of senior management.

Table 8: The correlation coefficient between e-learning strategies and increase the efficiency of educational performance in universities

Hypothesis	Pearson coefficient	Sig.
There is a significant relationship between the total areas of e-learning strategies and educational performance efficiency.	*0.910	0.000

The correlation was statistically significant ($\alpha \leq 0.05$). Table (8) shows that the correlation coefficient is (0.910) and that the probability value (Sig) is equal to (0.00) and is less than the significance level ($\alpha \leq 0.05$). This indicates a statistically significant relationship between e-learning strategies, the efficiency of the educational and research performance in the universities is due to the interest of the senior management in presenting strategic plans that focus on e-learning through the vision and mission of universities and quadratic analysis, which in turn reflects on the efficiency of university performance.

Therefore, the result of the hypothesis: There is a significant relationship between the strategies of e-learning and increase the efficiency of research performance in universities.

4. CONCLUSION

The study found that there is a significant relationship between e-learning strategies and increasing the efficiency of educational performance in universities. The study also showed that senior management in Palestinian universities does not care about providing the appropriate budget for e-learning. The study also showed that senior management in Palestinian universities does not help to adhere to the performance standards set by the university. While the study showed that senior management helps to adhere to the standards of performance set by the university.

Also the study showed that senior management in foreign universities is interested in providing the appropriate budget. The sample of the study considers that e-learning is a

strategic requirement that contributes to the development of education.

The study recommended that the senior management of Palestinian universities should provide an e-learning budget and encourage employees to continue using e-learning strategies. It also recommended that senior management should focus on developing measures that would help to increase efficiency of performance. Foreign universities continue to develop e-learning strategies

It also recommended that senior management in Palestinian universities should focus on developing standards that would help to increase the efficiency of performance. As for foreign universities, they worked in coordination with the Palestinian universities and provided them with expertise in this field.

The study also recommended the importance of presenting educational content in a simple and easy way. In addition, the importance of establishing a flexible technological infrastructure.

REFERENCES

[1] Gad El-Rab, S. (2015). Modern Trends in Business Management, Cairo, Academy Library, (2015), p. 101.

[2] Alkarzon, M. (2016). Gender Differences In Attitudes Toward Online Training In Qatar Private Institutions Ph.D. Department of Educational Technology, Research and Assessment Northern Illinois University, (2016) ,p11.

[3] Brown, J., Park, H. (2015). Comparing Student Research Competencies in Online and Traditional Face-to-Face Learning Environments, The Online Journal of Distance Education and e-Learning, vol. 3, issue 1, pp. 1-7.

[4] Resenbeg, M, (2007). E-eLearning Strategy, The eLearning Guild, David Holcomb Publishing , p.17.

[5] Abu Naser, S. S., Al Shobaki, M. J. & Abu Amuna, Y. M. (2016). KM Maturity Factors Affecting High Performance in Universities, ITEE Journal, vol. 5, issue 5, pp. 46-56.

[6] Quality Program ,QM Quality Matters TM Rubrics standrs",2011-2013 edition with Assigned point , values:1,(2012) ,P.42

[7] Abdalmenem, S. A. M., Owda, R. O., Al hila, A. A., Abu-Naser, S. S., & Al Shobaki, M. J. (2018). The Performance Efficiency of University Education between Reality and Expectations, International Journal of Academic Management Science Research (IJAMSR), vol. 2, issue 10, pp. 66-76.

[8] ODUMA, C. A., ILE, CHIKA M. (2014). ICT Enabled Education & ICT Driven, E-learning Strategies: Benefits & Setbacks in Nigeria Education System & Technology, An International Journal of science & Technology Vol. 3, P.118.

[9] Matt, B. (2015). Topology of web 2.0 learning Technologies, Macquarie University, Australia, P.3.

[10] Abu Naser, S. S., Abu Amuna, Y. M., El Talla, S. A. & Al Shobaki, M. J. (2017). Technical Education and its

- Role in Promoting Entrepreneurship in the Gaza Strip, Second Scientific Conference on Sustainability and enhancing the creative environment of the technical sector Palestine Technical College - Deir Al Balah, Palestine, pp. 1-40.
- [11] Abu Naser, S. S., Abu Amuna, Y. M., El Talla, S. A. & Al Shobaki, M. J. (2017). Social Networks and their Role in Achieving the Effectiveness of Electronic Marketing of Technical Colleges, Second Scientific Conference on Sustainability and enhancing the creative environment of the technical sector Palestine Technical College - Deir Al Balah, Palestine, pp. 1-40.
- [12] Al-Fawal, M., Ibraheem, R. (2013). The Effectiveness of Some Active Learning Strategies", from the point of view of secondary school teachers, Tishreen Journal for Research and Scientific Studies, vol. 35, issue 6 , pp. 239-257.
- [13] Al hila A. A., Al Shobaki, M. J., Abu Naser, S. S. & Abu Amuna, Y. M. (2017). Proposed Model for Learning Organization as an Entry to Organizational Excellence from the Standpoint of Teaching Staff in Palestinian Higher Educational Institutions in Gaza Strip, International Journal of Education and Learning, vol. 6, issue 1, pp. 1-28.
- [14] Nwangwu, E. (2014). Video Editing and Production Skills Possessed by Computer Education Lecturers for Effective Instructional Delivery in Colleges of Education in South-East One of Nigeria, Computer education reaches Journal, vol.11, issue 1, pp.109-118.
- [15] Mohammed Al-Saeed, M. (2015) Series of E-Learning Strategies, University of Majma'a, p. 29.
- [16] Abdel-Aal, A. (2011). Obstacles to Electronic Publishing and Not to Benefit from It in Arab Universities: Sohag University as a Model: Cybrarians Journal, vol. 26, pp. 1-9.
- [17] Al Shobaki, M. J., Abu Naser, S. S., Abu Amuna, Y. M. & El Talla, S. A. (2018). The Availability of Smart Organization Dimensions in Technical Colleges in Palestine, International Journal of Academic Management Science Research, vol. 2, issue 5, pp. 1-26.
- [18] Redenbeg, M. (2010). e -learning strategy: The eLearning Guild, David Holcombe Publishing.
- [19] Kang, M., Heo, H., Jo, Il., Shin, J. & Seo. J. (2010). Developing an Educational Performance Indicator for New Millennium Learners, Journal of Research on Technology in Education, vol. 43, issue. 2, pp. 157–170.
- [20] Abu Galwa, N. (2014). The effectiveness of a training program based on active learning strategies and mathematical skills involved in the international study in the development of teaching performance for teachers, PhD. Dissertation, Ain Shams University, Egypt.
- [21] Al-Shemary, Y. (2013). Organizational Culture and its Relationship to Improving Educational Performance from the Perspective of Students of King Khalid Military College, Riyadh, Master Dissertation, KSA.
- [22] Merrill, M.D. (1983). The Component display theory, In C.M. Regolith(Ed), Instructional design theories and models: An overview of their current status, U.S.A. N.J: Lawrence, Erlbaum associates.
-