

## The Role Of Electronic Governance In Improving Learning Outcomes At King Khalid University

Dr. Nahla Al-Nour Muhammad Al-Makki<sup>1</sup>, Amina Mohammed Solyman Hussein<sup>2</sup>

### 1- Abstract:

*The study investigated the role of electronic Governance in improving learning outcomes at King Khalid University. The problem of the study was represented in the role of the electronic Governance in enhancing, developing and improving learning outcomes at King Khalid University and achieving Aseer Strategy. The study significance rises from that electronic Governance play a great role in improving the mental image among community's institutions and people towards the learning outcomes at the university. The study aimed to identify the role of electronic Governance in enhancing the vision and mission of King Khalid University through improving the learning outcomes for 2030. The descriptive analytical approach was adopted in order to measure the relationship between electronic Governance and learning outcomes at King Khalid University, through collecting primary and secondary data from the previous literature (previous research and studies. The study was carried out on the population of King Khalid University. A sample was randomly selected of (61) from the teaching staff of the university. A questionnaire was designed and distributed to the study sample. The study verified the following hypotheses: There is no a statistically significant relationship between learning outcomes and promoting cognitive skills of King Khalid University students. There is no a statistic<sup>1</sup>ally significant relationship between the significance of learning outcomes and fulfilling and promoting academic and life skills of King Khalid University students. There is no a statistically significant relationship between learning outcomes and raising the efficiency of King Khalid University students. The study concluded the following findings: There is a statistically significant relationship between learning outcomes and enhancement of cognitive skills of King Khalid University students.*

*There is a close relationship between electronic governance and improving university performance and the positive impact of electronic participation on learning outcomes. There is no a statistically significant relationship between learning outcomes and enhancement of scientific skills of King Khalid University students. The researchers recommended the following: King Khalid University students' cognitive and scientific skills should be enhanced and their learning efficiency should be increased.*

**Keywords:** *Electronic Governance, Improving, Learning outcomes*

### 2- Introduction:

The current world orientation in the field of education, particularly university education, tends towards the learner-centred education, also known as output-centred education, instead of the traditional teacher-centred method. Output is the statements that describe the final educational results expected from the educational process. Those results including knowledge, understanding and ability to perform that expected to appear on the learner the

---

<sup>1</sup>Principal investigator, Assistant Professor of Accounting Sciences - Applied College in King Khalid University.

<sup>2</sup>Assistant Professor of Administration Sciences in Applied College King Khalid University.

program plans to achieve through determined activities, strategies and assessment methods to assess to what extent those results are achieved. (Department of Research and Studies, Ministry of Education, 1443 AH). At King Khalid University, there are number of colleges. As the university has particular objectives and visions, each college has its own objectives departments programs and academic paths as well. Therefore, the general objectives of the university change into specifically determined objectives that integrate altogether to achieve the objectives and output of program. In this respect, in 2007, Dicklan Kenedy published his book "Writing and Unising Learning Outcomes: A Practical Guide", which then translated into several languages. This encouraged organizations and institutions, particularly, higher education institutions to adopt transitional strategies to move from the traditional education to learning outcomes based education. Accordingly, the educational institutions utilized the developments in communication technology to spread the culture of using learning outcomes strategy in education. electronic governance is one of those methods, means and jobs that appear thanks to the developments in communication technology. Technology became one of the most important factors affecting the reconstruction of communication structure for this vital (crucial) and significant job encouraging those who are interested in this field to conduct many research.

### **3- Problem of the Study**

The problem of the study focused on identifying the role of the electronic governance on achieving the mission and objectives of educational programs at King Khalid University, and on achieving Aseer Strategy and Saudi Arabia Kingdom Vision to 2030, through promoting learning outputs and improving performance . In order to achieve the objectives of this study, the problem has centred on the following main question:

To what extent electronic governance is significant in promoting, developing and improving learning outputs at King Khalid University and in achieving Aseer Strategy?

#### **The sub-questions are represented in:**

- 1- Do learning outcomes contribute to acquiring graduates learning skills required for King Khalid University students?
- 2- Do learning outcomes contribute to acquiring graduates cognitive, motor and psychological skills required for King Khalid University students?
- 3- Do learning outcomes contribute to raising the efficiency of King Khalid University students in general?

### **4- Significance of the Study**

Electronic governance play a great role on improving mental image among community indivuals and civil society institutions about the importance of performance and learning outcomes at the university. They also contribute to the development of learning outcomes which in turn lead to the filfullment of labor market needs and to the achievment of Aseer Strategy and Vision to 2030. Electronic governance also may contribute to the establishment of quality standards for learning outcomes and the explanation of visions paths to the improvement and development of educational programs. Electronic governance participate in organizing cooperating and competitive comparisions that are compitable with local, regional and international standards, in addition to their role on evaluating and assessing education system performance.

### **5- Objectives of the Study**

- 1- The study attempts to identify the role of electronic governance on promoting the vision and mission of King Khalid University through improving the quality of performance and learning outcomes 2030.
- 2- Determine the learning output at King Khalid University.
- 3- Conclude recommendations to improve and promote the learning outcomes at King Khalid University.

## **6- Hypotheses of the Study**

Hypothesis one: There is no a statistically significant relationship between learning outcomes and promoting cognitive skills of King Khalid University students.

Hypothesis two: There is no a statistically significant relationship between the significance of learning outcomes and fulfilling and promoting academic and life skills of King Khalid University students.

Hypothesis three: There is no a statistically significant relationship between learning outcomes and raising the efficiency of King Khalid University students.

Hypothesis four: There is no a statistically significant relationship between learning outcomes and demographic variables of the study sample.

## **7- Methodology of the Study**

### **1. Method and Tools of the Study**

The descriptive analytical approach was used to measure the relationship between electronic governance and promoting performance and learning outcomes at King Khalid University. Primary and secondary data were collected from previous literature (previous research and studies). The tool of the study was prepared; a questionnaire was designed on (website) an electronic link, directed to a random sample of the teaching staff at colleges of King Khalid University. The (website) electronic link was distributed to a pilot (an experimental) sample from the teaching staff and specialized experts in order to benefit from their opinions and suggestions. The questionnaire validity and reliability were measured using Cronbach Scale.

### **2. Population and Sample of the Study**

#### **a. Population of the Study**

The population of the study consisted of the teaching staff working at a number of King Khalid University colleges located in Abha city south western of the Kingdom of Saudi Arabia established in 1419 AH during the visit of the Custodian of the Two Holy Mosques King Abdallah bin Abdalaziz when he was the Crown Prince on Tuesday 09/01/1419 AH. During the visit a decision was made according to which two branches of Imam Mohamed bin Saud Islamic University and King Saud University located in Aseer area were incorporated under the name University of King.

#### **b. Sample of the Study**

The sample of the study was (61), the questionnaire was distributed to a the selected sample of the teaching staff members. (58)of the distributed copies of the questionnaire were answered equaling (95%) of the study population consisted of (58 ) individuals.

#### **c. Information Resources of the Study**

Primrary studies: include the field study – the questionnaire.

Secondary studies: include the previous studies – books – journals – websites – the Internet.

Research procedures: Electronic governance — Enhancing – learning output.

## **8- Limitation of the study**

Spacial limits: King Khalid University.

Time limits: 2022/2023.

## **9- Literature review**

### **9-1 Previous Studies**

Alutaybi (2007) The study aimed to describe and analyze the inappropriateness/incompatibility of Saudi higher education outcomes and labour market, and to identify the business sector requirements from higher education institutions. The descriptive approach was used in data collection and analysis. Previous research relevant to the topic were reviewed and recruitment managers were interviewed. The study concluded that; there was private sector orientation towards higher education graduates. There was need for scientific specializations and English language and computer and there was weakness in scientific specializations compared to theoretical ones.

Osama et al (2018) The study aimed to contribute to achieving Vision 2030, to match the learning outcomes quality at Saudi universities with their role on fulfilling Saudi labor market requirements according to Vision 2030 and to identify the university and community viewpoint and to what extent they are satisfied with outcomes quality. The study adopted the descriptive approach. A sample was selected from universities which have institutional accreditation to 01/01/2018, teaching staff and business owners. The study showed that the overall satisfaction was very good with mean (3.59). The study recommended universities to consider the requirements of KSA Vision 2030.

Younus (2011). The study aimed to identify to what extent Saudi universities able to fulfill KSA Vision 2030 requirements for labor market needs. The study adopted the descriptive approach. A questionnaire was used as data collection tool and distributed to a sample of (74) from recruitment managers at some of companies and corporations of private sector, (72) from teaching staff members at King Saud University and (105) students. The study showed the following: The university graduates were not matching labor market needs because students were not distributed to university specializations, university academic programs were not appropriate to labor market needs, labor sectors officers did not participate in making university admission policy, university did not coordinate with workforce planning bodies. University graduates were not employed because they are not competent in English language, computer science and professional skills.

Rachida.bougri Mohamed El-Amine NOUI (2021) The aim of the study is to apprehend the role of the university governance in harmonizing higher education outputs with the labor market requirements. introduced in the literature part the study axes: the university governance and the market requirements, whereas in the empirical part, the study presented the results of the statistical survey of some Arabic universities, comparing them to other European universities in terms of graduates' status in labor market and the reflection of the applied principles of governance on their qualifications and professional skills. Results showed that Arab universities did not apply the university governance principles that serve the outputs of higher education, which is reflected in the employment low rates after graduation compared to those of the European universities, where their graduates are distinguished with a high rate of employment by the labor market. Universities governance is based on a set of principles as follows:

- Independence: It is represented by financial independence and the university's ability to act freely in implementing government or private funding and managing scientific expenses, as well as academic independence.
- transparency :Electronic governance works to enhancing transparency in decision-making processes.
- participation: Electronic governance works to effective participation between the administrative staff, the teaching staff, and the students in making administrative decisions and finding appropriate solutions to problem.
- accountability : E-Governance works on accountability that lead to improve learning outcomes , monitoring work and following up on the results.

Using electronic governance in teaching techniques in data analysis to improve educational processes, analyze student performance, enhance employee and salary management, provide opportunities for training and development, improve educational processes, and evaluate student performance.

Governance is an important tool in achieving simplification and achieving the greatest degree of transparency. It is a new method that uses information technology in an integrated and rapid manner for all officials to rationalize the decision-making process and improve performance, leading to rational management based on transparency in dealing, which reduces corruption and allows accountability.

E-governance refers to the use of information and communications technology (ICT) to enhance and support the delivery of government services and improve efficiency in operations. The goal is to take advantage of technology to make services more accessible, transparent and efficient.

### **Basic elements of electronic governance:**

The basic elements of governance include the use of digital platforms, online communication channels and electronic systems to simplify administrative processes, provide public services and disseminate information. This may include the implementation of various technologies such as websites, mobile applications, electronic databases and portals.

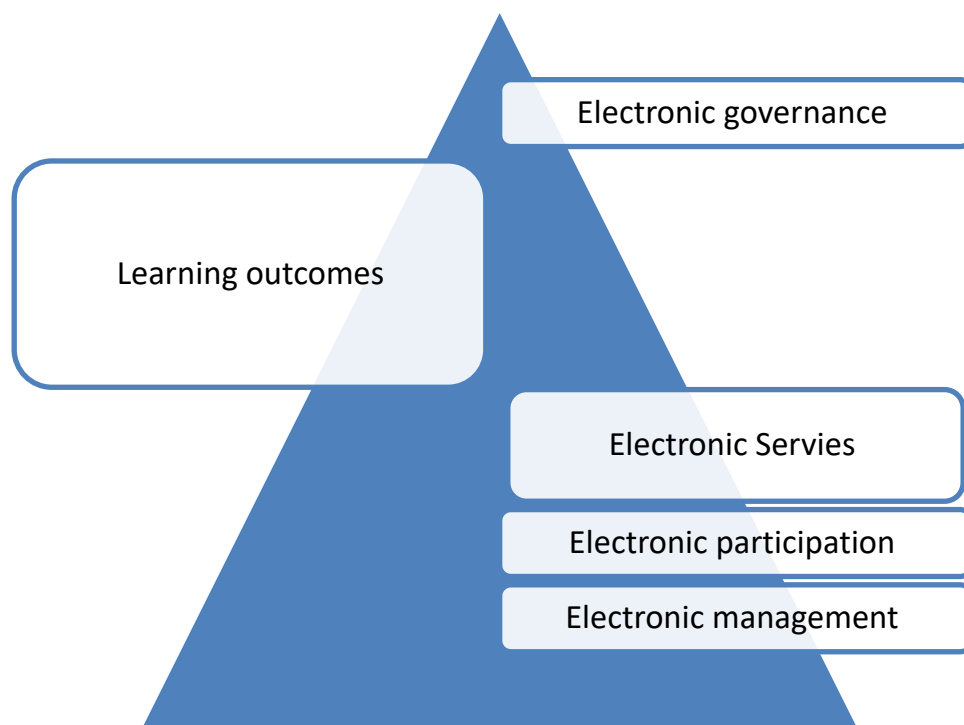
### **Principles of information technology governance:**

There are many information technology governance principles that contribute to the development of operations, such as ease of use and the insert of modern technologies that improve efficiency and quality in departments and departments, achieving transparency by providing all private information in the field of the web, in addition to identifying tools for measuring performance and ensuring the quality of systems for information management and speed of response.

### **Benefits of electronic governance:**

Electronic governance aims to:

- 1- Increasing efficiency in electronic services and interaction between sectors of society and the university
- 2- Building strong relationships between public authorities and society
- 3- Achieving the requirements of society and companies
- 4- Facilitating community access to information
- 5- Reducing expenses and growing revenues
- 6- Enhancing legitimacy and structuring administrative processes
- 7- The study aimed to identify the role of electronic governance and its components in improving university performance. The study adopted a hypothetical structural model, tested it and reached its results. The study reached several conclusions...
- 8- The most important of which is that adopting electronic management and electronic participation is one of the priorities for the success of electronic governance and improving university performance



Shape (1):Lazhairi, Talal Nazim (2018) Applying the principles of electronic governance based on the capabilities of human resources to raise the level of distinguished university performance. An analytical study of the opinions of university leaders in a sample of colleges at Al-Qadisiyah University. *Al-Qadisiyah Journal of Administrative and Economic Sciences*

**Implementing electronic governance system programs has contributed to achieving the following advantages:**

- 1- Achieving transparency, justice, equality, and management of institutions for the concerned parties
- 2- Achieving protection and reviewing performance from outside members of the executive management who have duties, powers, and the authority to achieve effective and independent oversight.
- 3- Increasing confidence in the management of the national economy, which contributes to raising investment rates and achieving high growth rates in national income .
- 4- Collection of all information activities and services
- 5- Achieving speed and effectiveness of communication, coordination, performance and achievement
- 6- Transparency in dealing
- 7- The ability to secure needs
- 8- Breaking geographical barriers and developing skills and knowledge

## 9- Data Analysis and Results

### A- Analysis of the Sample Demographic Information

**Table (1): Gender**

	Frequency	Percent
Female	32	55.2%
Male	26	44.8%
<b>Total</b>	<b>58</b>	<b>100.0</b>

The table (1) above shows the gender distribution of the study sample; there were 32 with 55.2% females and 26 with 44.8% males. This indicates that most of the study sample were females.

**Table (2): Age**

	Frequency	Percent
From 20 years to less than 31 years	14	24.1%
From 31 years to less than 41 years	4	6.9%
From 41 years to less than 50 years	40	69.0%
<b>Total</b>	<b>58</b>	<b>100.0</b>

The table (2) above shows the age distribution of the study sample; there were 14 with 24.1% their age between (20 - 30), 4 with 6.9% their age between (31 - 40) and 40 with 69.0% their age between (41 - 50). This indicates that most of study sample their age between (41 - 50).

**Table (3): Scientific Degree**

	Frequency	Percent
Professor	4	6.9%
Assistant Professor	36	62.1%
Associate Professor	4	6.9%
Lecturer	8	13.8%
Teaching Assistant	6	10.3%
<b>Total</b>	<b>58</b>	<b>100.0</b>

The table (3) above shows the scientific degree distribution of the study sample; there were 4 with 6.9% their scientific degree professor, 36 with 62.1% assistant professor, 4 with 6.9% associate professor, 8 with 13.8% lecturer and 6 with 10.3% their scientific degree was teaching assistant. This indicates that most of study sample their scientific degree assistant professor.

**Table (4): Number of years in service**

	Frequency	Percent
(3 years and less)	6	10.3%
(More than 10 years)	26	44.8%
(From 4 to 6 years)	6	10.3%
(From 7 to 10 years)	20	34.5%
<b>Total</b>	<b>58</b>	<b>100.0</b>

The table (4) above shows the distribution of the study sample number of years in service; there were 6 with 10.3% their number of years in service (3 years and less), 26 with 10.3%

(more than 10 years), 6 with 10.3% (from 4 to 6 years) and 20 with 34.5% (from 7 to 10 years). This indicates that most of study sample their number of years in service (more than 10 years).

**Table (5): Nationality**

	Frequency	Percent
Saudi	8	13.8%
Non-Saudi	50	86.2%
<b>Total</b>	<b>58</b>	<b>100.0</b>

The table (5) above shows the distribution of the study sample nationality; there were 8 with 13.8% Saudi, 50 with 86.2% non-Saudi. This indicates that most of the study sample were non-Saudi.

### B- Reliability and validity coefficients for the questionnaire list:

**Table (6): Reliability and validity of the questionnaire**

Dimensions	Reliability	Validity	Number of Statements
First Aspect	0.859	0.927	4
Second Aspect	0.906	0.952	11
Third Aspect	0.957	0.978	7
<b>Total questionnaire statements as a whole</b>	<b>0.963</b>	<b>0.981</b>	<b>22</b>

**Scale reliability:** From the table (6) above, it was found that the reliability coefficient for each dimension and aspect of the study was higher than (0.50), and that the stability coefficients for the questionnaire list as a whole were (0.963). Thus, the questionnaire list is characterized by a high degree of stability.

**Scale validity:** From the table (6) above, it was found that the degree of validity coefficient for each dimension and aspect of the study was higher than (0.60) and that the validity coefficients for the questionnaire list as a whole was (0.981).

### C- Descriptive Statistics of the Field Study Results

#### 1. Analysis of the Statements of Learning Outcomes and Enhancement of Cognitive Skills

**Table (7): The mean, standard deviation, and relative significance of the statements for learning outcomes and enhancement of cognitive skills**

No .	Statement	Mean	SD	Relative Sig.	Ranking
1	E-governance at the university attempts to make local community institutions and people more aware of university's role in achieving the development in the area.	3.86	0.945	77.24%	4



2	E-governance builds strong relation with various publishing and advertisement media to show the university role in achieving vision 2030.	3.90	1.103	77.93%	2
3	E-governance spreads the spirit of creativity and communication among university's staff to achieve the objectives of the university.	3.93	0.876	78.62%	1
4	E-governance works to enhancing transparency in decision-making processes	3.90	1.003	77.93%	2
<b>Mean of dimension</b>		3.90	0.826	78.28%	

The table (7) above shows the total responses of the sample individuals to the statements related to learning outcomes dimension and enhancement of cognitive skills was high, with mean of (3.90) and standard deviation of (0.826).

The highest response of the sample individuals was given to the statement: "Electronic governance spread the spirit of creativity and communication among university's staff to achieve the objectives of the university."

The least response of the sample individuals was given to the statement: " Electronic governance at the university attempts to make local community institutions and people more aware of the university's role in achieving the development in the area."

## **2. Analysis of the Statements of Learning Outcomes and Enhancement of Scientific Skills**

**Table (8): The mean, standard deviation, and relative significance of the statements for learning outcomes and enhancement of scientific skills**

No.	Statement	Mean	SD	Relative Sig.	Ranking
1	E- governance adopts a strategy to make positive image of the university among community and market sectors.	3.86	0.868	77.24%	7
2	E- governance contributes to managing crises facing the university and preparing campaigns to overcome them.	3.93	0.876	78.62%	4
3	E- governance always communicates with members and audience of the external environment to identify their needs.	3.62	1.04	72.41%	11

4	E- governance uses technological programs to make university's staff aware of improving performance importance and role in spreading the culture of hardworking, perseverance and distinction.	3.79	1.166	75.86%	8
5	E- governance uses social media to spread the culture of spirit of competition among university's staff.	3.66	0.928	73.10%	10
6	E-governance works to effective participation between the administrative staf, the teaching staff, and the students in making administrative decisions and finding appropriate solutions to problem	3.93	0.835	78.62%	4
7	Learning outcomes contributes to increasing students' awareness of the importance of acquiring knowledge and theoretical concepts of their specializations.	4.07	0.835	81.38%	1
8	Learning outcomes determines the types of students' communication skills.	3.93	0.876	78.62%	4
9	Clear learning outcomes makes local community institutions and people more aware of that the graduates are able to fulfill the labor market requirements.	4.00	0.879	80.00%	3
10	Learning outcomes includes students' understanding skills.	4.03	0.858	80.69%	2
11	E-Governance works on accountability that lead to improve learning outcomes monitoring work and following up on the results.	3.79	0.932	75.86%	8
<b>Mean of dimension</b>		3.87	0.662	77.49%	

The table (8) above shows the total responses of the sample individuals to the statements related to learning outcomes dimension and enhancement of scientific skills was high, with mean of (3.87) and standard deviation of (0.662).

The highest response of the sample individuals was given to the statement: "Learning outcomes contribute to increasing students' awareness of the importance of acquiring knowledge and theoretical concepts of their specializations."

The least response of the sample individuals was given to the statement: "E-governance always communicates with members and audience of the external environment to identify their requirements."

### 3. Analysis of the Statements of Learning Outcomes and Increasing Students' Efficiency

**Table (9): The mean, standard deviation, and relative significance of the statements for learning outcomes and increasing students' efficiency**

No.	Statement	Mean	SD	Significance	Ranking
1	Learning outcomes determine the means of increasing the spirit of creativity among students.	3.86	0.945	77.24%	4
2	Learning outcomes clarify the methods of enhancing students' ability to carry responsibility.	3.93	0.835	78.62%	2
3	Learning outcomes explain how to analyze and solve problems.	3.83	0.881	76.55%	5
4	Learning outcomes determine the methods of making right decisions.	3.76	0.942	75.17%	7
5	Learning outcomes clarify the methods of teaching students the analysis and prediction of behavioral problems.	3.83	1.028	76.55%	5
6	Learning outcomes determine the means of self-learning.	4.14	0.826	82.76%	1
7	Learning outcomes contribute to explaining the methods of teaching students critical thinking.	3.93	0.876	78.62%	2
<b>Mean of dimension</b>		3.89	0.809	77.93%	

The table (9) above shows the total responses of the sample individuals to the statements related to learning outcomes dimension and increasing students' efficiency was high with mean of (3.89) and standard deviation of (0.809).

The highest response of the sample individuals was given to the statement: "Learning outcomes determine the means of self-learning."

The least response of the sample individuals was given to the statement: "Learning outcomes determine the methods of making right decisions."

#### D- Verification of the Study Hypotheses:

### 1. Hypothesis one:

**There is no a statistically significant relationship between learning outcomes and enhancement of cognitive skills.**

In order to verify this hypothesis, the researchers conducted the following tests:

#### A- Coefficient of correlation:

The table below shows the correlation coefficient between learning outcomes as an independent variable and cognitive skills as a dependent variable.

**Table (10): Coefficient of correlation for hypothesis one**

Variable	Test	Cognitive skills
Learning outcomes	Correlation coefficient	0.897
	Significance	0.000

The table (10) above shows that there is a statistically significant correlation by 89.7% at significance level 0.05 between learning outcomes and cognitive skills.

#### B- Coefficient of determination:

**Table (11): Coefficient of determination for hypothesis one**

Independent variable	Coefficient of determination	Modified coefficient of determination	S.E
Learning outcomes	0.805	.0802	0.34891

The table (11) above shows that the coefficient of determination  $0.805 = R^2$  which means that learning outcomes interprets the change in cognitive skills by 80.5%, while the rest of percent are interpreted by the other variables that were not included into the regression relation, in addition to random errors resulted from the sampling method, measurement accuracy and others.

#### C- ANOVA Test:

**Table (12): ANOVA Test for hypothesis one**

Statement	Sum of squares	DF	Mean of squares	F	Significance
Regression	28.225	1	28.225	231.848	0.000
Residuals	6.817	56	0.122		
<b>Total</b>	35.042	57			

The table (12) above shows that there is a significant direct correlation between learning outcomes and cognitive skills; that is shown by the value of (F) which is statistically significant at the level 0.05 and it confirms the correctness and essentialness of the correlation between the two variables, and the frame results can be depended on without errors.

#### D- Regression Analysis:

**Table (13): Regression analysis results for hypothesis one**

Model	Non-standard transactions	standard transactions	Tests	Significance
-------	---------------------------	-----------------------	-------	--------------

		Beta	S.E	Beta		
1	<b>Constant</b>	0.479	0.223	0.897	2.149	0.036
	<b>Learning outcomes</b>	0.852	0.056		15.227	0.000

The table (13) above shows that the T-test values of learning outcomes variable are significant at the level 0.05 and this confirms the strong regression relation between learning outcomes and cognitive skills.

Accordingly, the alternative hypothesis can be accepted which is:

There is a statistically significant relationship between learning outcomes and enhancement of cognitive skills.

## 2. Hypothesis two:

**There is no a statistically significant relationship between learning outcomes and enhancement of scientific skills.**

In order to verify this hypothesis, the researchers conducted the following tests:

### A- Coefficient of correlation:

The table below shows the correlation coefficient between learning outcomes as an independent variable and scientific skills as a dependent variable.

**Table (14): Coefficient of correlation for hypothesis two**

Variable	Test	Scientific skills
<b>Learning outcomes</b>	Correlation coefficient	0.636
	Significance	0.000

The table (14) above shows that there is a statistically significant correlation by 63.6% at significance level 0.05 between learning outcomes and scientific skills.

### B- Coefficient of determination:

**Table (15): Coefficient of determination for hypothesis two**

Independent variable	Determination coefficient	Modified determination coefficient	S.E
<b>Learning outcomes</b>	0.404	0.393	0.55677

The table (15) above shows that the determination coefficient  $0.292 = R^2$  which means that learning outcomes interprets the change in scientific skills by 29.2%, while the rest of percent are interpreted by the other variables that were not included into the regression relation, in addition to random errors resulted from the sampling method, measurement accuracy and others.

### C- ANOVA Test:

**Table (16): ANOVA Test for hypothesis two**

Statement	Sum of squares	DF	Mean of squares	F	Significance
Regression	11.771	1	11.771	37.973	0.000

Residuals	17.36	56	0.310		
<b>Total</b>	29.131	57			

The table (16) above shows that there is a significant direct correlation between learning outcomes and scientific skills; that is shown clearly by the value of (F) which is statistically significant at the level 0.05, and it confirms the correctness and essentialness of the correlation between the two variables, and the frame results can be depended on without errors.

#### D- Regression Analysis:

**Table (17): Regression analysis results for hypothesis two**

Model		Non-standard transactions		Standard transactions	Tests	Significance
		Beta	S.E	Beta		
1	<b>Constant</b>	1.821	0.356	0.636	5.123	0.000
	<b>Learning outcomes</b>	0.55	0.089		6.162	0.000

The table (17) above shows that the T-test values for all statements of learning outcomes variable are significant at the level 0.05 and this confirms the strong regression relation between learning outcomes and scientific skills.

Accordingly, the alternative hypothesis can be accepted which is:

There is a statistically significant relationship between learning outcomes and enhancement of scientific skills.

### 3. Hypothesis three:

**There is no a statistically significant relationship between learning outcomes and increasing students' efficiency.**

In order to verify this hypothesis, the researchers conducted the following tests:

#### A- Coefficient of correlation:

The table below shows the correlation coefficient between learning outcomes as an independent variable and students' efficiency as a dependent variable.

**Table (18): Coefficient of correlation for hypothesis three**

Variable	Test	Cognitive skills
Learning outcomes	Correlation coefficient	0.715
	Significance	0.000

The table (18) above shows that there is a statistically significant correlation by 71.5% at significance level 0.05 between learning outcomes and students' efficiency.

#### B- Coefficient of determination:

**Table (19): Coefficient of determination for hypothesis three**

Independent variable	Determination coefficient	Modified determination coefficient	S.E

<b>Learning outcomes</b>	0.512	0.503	0.57036
--------------------------	-------	-------	---------

The table (19) above shows that the determination coefficient  $0.512 = R^2$  which means that learning outcomes interprets the change in students' efficiency by 51.2%, while the rest of percent is interpreted by other variables that were not included into the regression relation, in addition to random errors resulted from the sampling method, measurement accuracy and others.

### C- ANOVA Test:

**Table (20): ANOVA Test for hypothesis three**

Statement	Sun of squares	DF	Mean of squares	F	Significance
Regression	19.08	1	19.08	58.652	0.000
Residuals	18.217	56	0.325		
<b>Total</b>	37.298	57			

The table (20) above shows that there is a significant direct correlation between learning outcomes and students' efficiency; that is shown by the value of (F) which is statistically significant at the level 0.05 and it confirms the correctness and essentialness of the correlation between the two variables, and the frame results can be depended on without errors

### D- Regression Analysis:

**Table (21): Regression analysis results for hypothesis three**

Model	Non-standard transactions		Standard transactions	Tests	Significance	
	Beta	S.E	Beta			
1	<b>Constant</b>	1.167	0.364	0.715	3.204	0.002
	<b>Learning outcomes</b>	0.701	0.091		7.658	0.000

The table (21) above shows that the T-test values of learning outcomes variable are significant at the level 0.05 and this confirms the strong regression relation between learning outcomes and students' efficiency.

Accordingly, the alternative hypothesis can be accepted which is:

There is a statistically significant relationship between learning outcomes and increasing of students' efficiency.

## 11-Findings and Recommendations

### A-Findings

The researchers came up with the following findings:

1. There is a statistically significant relationship between learning outcomes and enhancement of cognitive skills.
2. There is no a statistically significant relationship between learning outcomes and enhancement of scientific skills.

3. There is a statistically significant relationship between learning outcomes and increasing students' efficiency.
- 4- There is an importance in implementing electronic governance programs in university management programs and learning outcomes
- 5- The shift from traditional work to electronic work led to harnessing capabilities and cooperation, and there is a close relationship between electronic governance and improving university performance and the positive impact of electronic participation on learning outcomes.
- 6- There is a positive and significant impact of electronic management on learning outcomes
- 7- Electronic governance works on enhancing transparency in decision-making processes
- 8-Electronic governance works on effective participation between the administrative staff, the teaching staff, and the students in making administrative decisions and finding appropriate solutions to problems.
- 9- E-Governance works on accountability that lead to improve learning outcomes , monitoring work and following up on the results.

### **B- Recommendations**

The researchers recommend the following:

1. To enhance students' cognitive skills and increase their learning efficiency.
2. To enhance students' scientific skills.
3. To clarify methods of teaching students critical thinking.

This research was supported by small research groups at the Deanship of Scientific Research - King Khalid University - Saudi Arabia

(RGP.1 /151/44)

### **Acknowledgement:**

The authors extend their appreciation to the Deanship of Scientific Research at King Khalid University for funding this work through small Groups Project under grant number(RGP.1 /151/44)1444-1445

### **12- References:**

- 1-Abel, Jaison R., Richard Deitz, and YaqinSu. 2014. "Are Recent College Graduates Finding Good Jobs?" FRBNY Current Issues in Economics and Finance, Vol. 20, No. 1, pp. 1-8.
- 2-Alabsi Raheeb (2017), A Proposal for Matching Community Colleges Learning Outcomes in Yamani Republic with Labor Market Reuirements in Light of the Reality, Vol.10, No.28.
- 3-Ali Ismail & Biar Jadoon (2009), Matching Higher Education Learning Outcomes and Community Needs in Arab Countries, Beirut, A Worksheet Submitted to 12<sup>th</sup> Conference for Ministers in Charge of Higher Education and Research in Arab Countries.
- 4-Alkhudari Mohamed bin Ragis Abdallah (2021), Requirements for Developing Future Skills at Saudi Universities through University Three Jobs, Vol.37, No.6.
- 5-Alutaybi, Muneer Matli (2007), Analyzing Higher Education Outcomes Appropriateness to Saudi Labour Market Needs, Education Journal, University of Kuwait.
- 6-Amutwie Abdelaziz, (2011), Obstacles to Community Colleges of Shagraa University Performing the Required Role from Teaching Staff Viewpoint, Psychological and Educational Studies, Lab of the Development of Psychological and Educational Practices, No.7.
- 7-Christopher Jepsen, Kenneth Troske, Paul Coomes,(2013)," The Labor-Market Returns to Community College Degrees, Diplomas, and Certificates", Institute for the Study of Labor, No. 6902.
- 8-Clive Belfield, Thomas Bailey(2017)," The Labor Market Returns to Sub-Baccalaureate College: A Review A CAPSEE Working Paper", retrieved from <https://capseecenter.org/labor-market-returns-sub-baccalaureate-college-review/>
- 9-Donnalee Bell and Krista Benes(2012) ,"Transitioning Graduates to Work Improving the Labour Market Success of Poorly Integrated New Entrants (PINEs) in Canada", retrieved from <https://www.researchgate.net/publication/235971201>.



- 10-Fraser Summerfield( 2013) “Labor Market Conditions, Skill Requirements and Education Mismatch”, retrieved from: [http://www.uoguelph.ca/\\_fsummerf/papers/JMP.pdf](http://www.uoguelph.ca/_fsummerf/papers/JMP.pdf).
- 11-Cognitive comparison - electronic governance, Mr. Fayza, Bougara University - Boudras, Algeria 2016
- 12- Ahmed, Essam (2012) The readiness of local administrations to adopt electronic governance, a case study in the Niue Governorate Office, Journal of Administration and Economics, Year 35, Issue 93 .
- 13- Jennifer Cleary, Michelle Van Noy (2014), “A Framework for Higher, Education Labor Market Alignment: Lessons and Future Directions in the Development of Jobs---Driven Strategies”, retrieved from <https://files.eric.ed.gov/fulltext/ED565469.pdf>.
- 14-Magdi Younus (2011), Saudi Universities Abilities to Filfulling Labor Market Needs.
- 15- Manie Mohamed Izzat Hamdi (2008), Evaluating the Relation between Higher Education Learning Outcomes and Labor Market Needs against Unemployment in Saudi Arabia, 2<sup>nd</sup> Conference for Planning and Developing Education and Research in Arab Countries.
- 16- Osama bin Hassan Arif, Ahmed Abu Alfadl Hijazi & Mohamed bin Hamza Abdelhameed (2018), Quality of Learning Outcomes at Saudi Universities and their Role on Fillfulling Saudi Labor Market Requirements According to Vision 2030.
- 17- Rachel Baker, Eric Bettinger, Brian Jacob, and Ioana Marinescu(2017),” The Effect of Labor Market Information on Community College Students’ Major Choice”, retrieved from <http://www.nber.org/data-appendix/w23333>.
- 18- Ubeidat Osama (2010), Skills Provided by Jordanian Higher Education Learning Outcomes According to Malhi Labor Market, Arab Journal of Higher Education Quality Assurance, No.5.
- 18- Zgawa Ahmed (2017), University Programs Response to Labor Market Needs, Human Development Journal, No.7.
- 19- Rachida.bougri Mohamed El-Amine NOUI (2021 ,The role of university governance in harmonizing higher education outputs with labor market requirements- case study of some Arab and European countrie.
- 20- Lazhairi, Talal Nazim (2018) Applying the principles of electronic governance based on the capabilities of human resources to raise the level of distinguished university performance
- 21-Ahmed, Essam (2012) The readiness of local administrations to adopt electronic governance, a case study in the Niue Governorate Office, Journal of Administration and Economics, Year 35, Issue 93.
- 22- Khalis, Maryam, Electronic Government (2013), Journal of the Baghdad University College of Economic Sciences, Special Issue of the College Conference
- 23- Saleh Abdul Reda Rashid Sabah Hussein Shinawa Al-Zayadi (2014) The role of intellectual capital in achieving outstanding university performance, an analytical study of the opinions of university leaders, Al-Qadisiyah Journal for Administrative and Economic Sciences
- 24- Mohamed Boudiaf University of M'sila (2016)Afag of Science, Management and Economics Journal Faculty of Economic, Commercial and Management Science
- 25-Electronic governance and its role in improving university performance, an analytical study from an academic point of view :Erdan Khader Al-Obaidi, Al-Mustansiriya University ,Rafid Hamid Al-Hadd, narrator of the University of Kufa, Sajjad Muhammad Atiya al-Janabi, University of Kufa (undated)