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**RESEARCH ARTICLE**

## The Impact of Virtual Learning on EEL Learners' Performance in the Assessment Results during Covid19 Pandemic

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**ABSTRACT**

In early 2020, a sudden pandemic known later as Covid19 spread all over the world and in the Gulf region. The immediate action of education authorities in the Gulf was taken after a short break period to shift the learning system across the Gulf from conventional face-to-face learning to virtual learning. This paper investigated the impact of the sudden shift in learning from the institution students' feedback and academic performance during the COVID-19 epidemic study period. This study intends to analyze the impact of virtual learning on EEL learners' performance within the assessment results during the Covid-19 pandemic and also to assess the usage of the assessment results from tools at the time of the Covid19 pandemic. Moreover, it intends to give the students' educational performance once the sudden shift into Virtual- Learning supported their final ends up results in the assessment results. The information was gathered via a questionnaire which was distributed randomly among English male students in the English Group Centre. It was responded to by 23 students. Items of the questionnaire were designed quantitatively. The organized inquiries estimated the assessment reactions to explain the target reactions and simultaneously improve the definition of suggestions of the study. The study recommends making students well-trained in the electronic assessment mode so as to promote the learners' performance within the assessment results online since the result indicated that they prefer traditional learning to Virtual learning.

**KEYWORDS**

Virtual learning, Assessment results, Students' Performance

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**1. Introduction**

**1.1 The statement of the problem**

A rapid outbreak that was eventually known as Covid19 began to spread in the Gulf region in early 2020. After a brief interruption, the Gulf's education officials immediately moved to switch the region's learning system from traditional face-to-face learning to virtual learning. In this study, we are investigating how a rapid shift in learning during the COVID-19 pandemic study period affected students' feedback and academic achievement.

**1.2 The Objectives of the Study**

This study intends to attain the subsequent objectives:

a. To analyze the impact of virtual learning on EEL learners' performance within the assessment results at the time of the pandemic Covid19.

- b. To assess the usage of the assessment results from tools at the time of the pandemic Covid19.
- c. To give the students' educational performance once the sudden shift into Virtual- Learning supported their final ends up results in the assessment results.

### **1.3 Significance of the Study**

a. The study concentrates on analyzing the impact of virtual learning on EEL learners' performance within the assessment results at the time of the pandemic Covid19.

### **1.4 Research Questions**

The study targeted to analyze the following questions:

1. What is the impact of virtual learning on EEL learners 'performance within the assessment results at the time of the pandemic Covid19?
2. To what extent does V-learning affect students' performance within the assessment from their perspectives?

### **1.5 Methodology**

This research is a qualitative descriptive study. The data used in this paper is obtained by comparing final result marks and a questionnaire distributed via Google Forms. The questionnaire is distributed to determine students' responses to learning systems that run online and the impact of the spread of COVID-19.

The population for the study is the students of the English Language Centre in Riyadh -Saudi Arabia. The sampled group is made up of 23 male students who were randomly selected in the English group Centre. Their ages were between 20 to 30 years odd, and they were studying English Language. Before subjecting the participants to the e-questionnaire, a request was made to both the group administrators and members on the intent of it, and the link was shared via the group WhatsApp platforms.

The other major tool for data collection in this study is by comparing the assessment marks before the Coronavirus Pandemic and after.

## **2. Literature Review:**

### **2.1 Technology-Driven Definitions**

This category primarily contains concepts from private companies and a few scholars that focus on the technical aspects of e-learning while dismissing the majority of its characteristics. E-learning is defined as the use of technology for learning in the definitions in this category. The following are some examples of this category's representative samples:

"E-learning is the use of electronic media for a variety of learning purposes that range from add-on functions in conventional classrooms to full substitution for the face-to-face meetings by online encounters" (Guri-Rosenblit, 2005).

"E-learning is to take a course online using a modem, wireless, or cable connection to access academic course material from a computer, phone, or handheld device" (Governors State University, 2008).

"E-learning is distance education through remote resources" (Marquès, 2006).

"E-learning is the use of technology to deliver learning and training programs" (E-learning portal, 2009)

### **2.2 Definitions Centered on the Delivery System**

This section discusses e-learning as a method of gaining information (through learning, teaching, or training). In other words, the emphasis of these concepts is on resource accessibility rather than the outcomes of any accomplishments. The following are some examples of representative samples from this group.

"E-learning is the delivery of education (all activities relevant to instructing, teaching, and learning) through various electronic media" (Koohang & Harman, 2005).

"E-learning is an online education defined as the self-paced or real-time delivery of training and education over the internet to an end-user device" (Lee & Lee, 2006).

"E-learning is the delivery of learning, training or an education program by electronic means" (Li, Lau, & Dharmendran, 2009).

"E-learning is defined as education delivered, or learning conducted, by Web techniques" (Liao & Lu, 2008).

### **2.3 Definitions of Communication Focus:**

This category views e-learning as a medium for communication, interaction, and collaboration and assigns secondary roles to its other aspects and features. The following are some representative examples of these concepts, which mainly come from the academic and communication fields.

"E-learning is education that uses computerized communication systems as an environment for communication, the exchange of information and interaction between students and instructors" (Bermejo, 2005).

"E-learning is learning based on information and communication technologies with pedagogical interaction between students and the content, students and the instructors or among students through the web" (González-Videgaray, 2007).

"E-learning is defined as learning facilitated by the use of digital tools and content that involves some form of interactivity, which may include online interaction between the learner and their teacher or peers" (Ministry of Communication and Technology of New Zealand, 2008).

### **2.4 Definitions based on Educational Paradigms**

E-learning is described as a new form of learning or an improvement on an established educational model in this category. The majority of the writers in this group work in the field of education. The following are some of the most representative examples of these meanings.

"E-learning is the use of new multimedia technologies and the Internet to improve the quality of learning by facilitating access to resources and services, as well as remote exchange and collaboration" (Alonso et al., 2005).

"E-learning is a broad combination of processes, content, and infrastructure to use computers and networks to scale and/or improve one or more significant parts of a learning value chain, including management and delivery" (Aldrich, 2005).

"E-learning is defined as information and communication technologies used to support students to improve their learning" (Ellis, Ginns, & Piggott, 2009).

"E-learning refers to educational processes that utilize information and communications technology to mediate synchronous as well as asynchronous learning and teaching activities" (Jereb & Šmitek, 2006).

### **3. Virtual Learning Assessment:**

"Schools are closed, but schooling goes on, and it remains crucial that teachers find ways to see what students are learning." (Andrew Miller, April 7, 2020)

One of the biggest challenges in instructing and learning exercises is the assessment: it permits instructors and learners to progress the longer-term exercises based on the past ones. It permits a profound analysis and understanding of the complete learning process. Usually, this is particularly not easy in virtual learning situations where a common outline isn't continuously accessible.

In recent times, Learning Analytics is becoming a foremost well-known strategy to analyze the information collected within the learning situations to back instructors and learners within the complex learning process. On the off chance that they are appropriately coordinated in learning exercises, undoubtedly, they can supply valuable data to adjust the exercises on the premise of students' needs. In this setting, the paper presents an arrangement for the carefully improved assessment with a simple, understandable view of learning data in virtual learning environments.

From this point, we can say that virtual assessment is challenging because of the practices of educators and teachers. It is likely that they will sound and look more distinctive than they do in the class and that they will need to search for comprehension and offer constructive input. "Finding out what your students are learning remains indispensable to teaching. (Nora Fleming, October 1, 2020).

As the education world grapples with the effects of Covid-19, educators and teachers are all challenged to have real educational opportunities at a distance, whether we use synchronous or asynchronous online sessions, whether we call it distance or virtual learning.

#### **4. Formative Assessment in Virtual Learning**

Educators and teachers should choose two to four resources that work well for them and their students, as variety is key. Concentrating on a few helps students to use resources they are familiar with while also ensuring that testing for learning does not become tedious.

In other words, as a first step, educators and teachers should know and identify their purpose.

Collect data over time: Formative evaluation can be a time-consuming operation, so it's critical to collect evidence of learning over time. Whereas instructors and teachers may instruct and direct which advanced devices students can utilize, they can work with students to help them register their learning as they go along and provide them with checklists or checkpoints to remind them of what they need to submit and when they need to submit it.

Focus on feedback: It's important to share any feedback received while testing for comprehension. Via records or sound recordings, any teacher may provide written and/or verbal input. If he or she is conducting synchronous workshops, students may be divided into breakout groups to provide input to one another. — By doing so, he or she would be able to give students specific feedback rules and encourage them to post work and provide feedback for a longer period of time.

In synchronous sessions, search for understanding: This type of check-in is critical. Some synchronous tools have built-in formative assessment features, such as Yes/No buttons, and others have a private chat feature that allows the instructor to see what students know and doesn't know in real time. In the case that such tools are not accessible, the instructor should supplement with a tool like Zoom to test along the way. These check-ins allow the teacher to provide just-in-time feedback and guide his or her attention to students who may need additional assistance later on via properties, intercession, or small-group instruction through breakout groups in a synchronous session.

Use personal interactions to search for understanding: In my experience, speaking with students is the most successful and significant way to check for understanding. We run the risk of being even more confined in our separate learning environment. By scheduling individual sessions with students, you'll be able to assess their progress and provide input while maintaining a genuine human link. In fact, we should be concentrating more on these types of assessments in the distance learning setting. Video devices may add a human element to the assessment process.

Examine the well-being of your students: In addition to keeping track of academic progress, instructors and teachers can keep track of the overall distance learning experience. Simple questions will entice students to provide feedback:

What's going on for you?

What exactly isn't working?

What would you suggest?

This is important because, for almost all of us, this method of learning is more current and thus necessitates constant reflection and feedback. "Similarly, at an elementary school in China where a friend of mine works, students kept saying they missed seeing their teachers. The teachers knew they couldn't replicate the powerful in-person experience, but they decided to record weekly personal videos for their students to share feedback and, more importantly, connect with students on a human level. Use formative assessment to adjust instruction and stay true to social and emotional learning." (Andrew Miller, April 7, 2020)

Make it practical: Information is worthless unless it is put to good use. We must use what we learn from formative tests to guide instruction as we compile and analyze them. We can discover that an asynchronous session did not go as planned and that a reteach should be provided in a different format, that specific students need additional support and resources, or that a small number of students stay for the last few minutes of a synchronous session while the majority leave. All of those data points tell us something we can use to provide quick feedback, change instructions, and plan ahead.

## 5. Data Analysis and Discussion

### 5.1 Reliability statistics:

Cronbach's alpha is used to determine the analysis tool's reliability.

Axis	Item	Reliability
The first axis	5	0.72
The second axis	6	0.70
The third axis	4	0.74
All hubs	15	0.86

From the above table, the general Reliability coefficient of the study axes is high, reaching (0.86). This means that the questionnaire is extremely trustworthy and reliable in the application.

First question: What is the impact of virtual learning on EEL learners 'performance within the assessment results at the time of the pandemic Covid19?

### 1- Students' satisfaction towards using virtual tools

**Table (1) Distribution frequency and percentage answering of sample study about Items the first axis.**

Item	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	percentage	Sample orientation
1. I am satisfied with the V-learning experience	12 37.5%	13 40.6%	1 1.3%	6 18.8%	-	80%	Strongly agree
2. I am strongly satisfied with the information technology services at the Direct English Centre - the distance education system.	7 21.9%	6 18.8%	13 40.6%	6 18.8%	-	68%	Agree
3. I prefer to take assessments online	9 28.1%	7 21.9%	1 3.1%	14 43.8%	1 3.1%	66%	Neutral
4. I agree to continue Virtual learning even after the end of the pandemic	5 15.6%	5 15.6%	-	9 28.1%	13 40.6%	48%	Disagree
5. I am satisfied with my grades on the assessments after the virtual learning	2 6.3%	8 25%	3 9.4%	17 53.1%	2 6.3%	54%	Neutral

It is clear from Table (1) above that 80% of the sum of the whole respondents Strongly agree that "I am satisfied with the V-learning experience". As we see, 68% of the study sample answered that they Agree that "I am strongly satisfied with the information technology services at the Direct English Centre - the distance education system".

We also find that 66% of the study sample answered that they were neutral " I prefer to take assessments online ".

As found, 48% Disagree with that " I agree to continue Virtual learning even after the end of the pandemic ". As we see, 54% of the study sample answered that they are Neutral about " I am satisfied with my grades in the assessments after the virtual learning ". Therefore, we can conclude that most of the student's opinions agree & neutral towards this axis (Students' satisfaction towards using virtual tools).

**Table (2) Shows the mean, standard deviation, Chi-Square, degree of freedom, and P. Value of responding to the Statements of the first axis.**

Statements	Means	STD	Ch <sup>2</sup>	D.F	P.value
1. I am satisfied with the V-learning experience	4	1.1	11.7	3	0.01
2. I am strongly satisfied with the information technology services at the Direct English Centre - the distance education system.	3.4	1	4.3	3	0.24
3. I prefer to take assessments online.	3.3	1.4	19.3	4	0.01
4. I agree to continue Virtual learning even after the end of the pandemic.	2.4	1.5	5.5	3	0.14
5. I am satisfied with my grades in the assessments after the virtual learning	2.7	1.1	25.8	4	0.00

The mean, standard deviation, Chi-Square, degree of freedom, and P. Value are all listed in the table above. Regarding the responses of the research survey questionnaire to the above Statements, it has been noticed that some means are higher than the mean stated in a hypothesized mean of about (3). This indicates that both of these Statements' outcomes are positive and that the standard deviation varies from (1 to 1.5), reflecting the respondents' responses are identical and homogeneous. The P. Value of most of the statements is less than 0.05 importance, according to this. This means that the responses of the study population vary statistically.

**2- Students' viewpoints on the virtual learning tools.**

**Table (3) Distribution frequency and percentage answering of sample study about Items the second axis.**

Item	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Percentage	Sample orientation
1. I think that learning via the Internet is easier than traditional one.	6 18.8%	4 12.5%	5 15.6%	13 40.6%	-	56%	Neutral
2. Virtual learning helped me develop my skills in using technology.	14 14.5%	8 25%	1 3.1%	15 46.9%	4 12.5%	56%	Neutral
3. Virtual learning helped me develop my grades in assessments.	4 12.5%	7 21.9%	10 31.3%	14 34.4%	-	62%	Neutral
4. Virtual learning helped me reduce stress during assessment time.	-	9 28.1%	13 40.6%	10 31.3%	-	60%	Neutral
5. I prefer returning to the traditional learning-based system to have good marks on the assessments.	16 50%	12 37.5%	2 6.3%	2 6.3%	-	86%	Strongly agree
6. Learning Virtually is the best way of learning I have ever experienced.	7 21.9%	4 12.5%	3 9.4%	7 21.9%	11 34.4%	54%	Neutral

It is clear from Table (3) above that 56% of the sum of the whole respondents are Neutral. I think that learning via the Internet is easier than traditional ones.

As we see, 56% of the study sample answered that the Neutral about Virtual learning helped me develop my skills in using technology.

We also found that 62% of the study sample answered that they were neutral that Virtual learning helped them develop their grades in assessments.

As found, 60% neutral Virtual learning helped me reduce stress during assessment time. As we see, 86% of the study sample answered that they Strongly agree that they prefer returning to a traditional learning-based system to have good marks in the assessments. As well, 56% of the study sample answered that they were neutral. Learning Virtually is the best way of learning I have ever experienced.

We also find that 54% of the study sample answered that they are neutral that Learning Virtually is the best way of learning I have ever experienced. Therefore, we can conclude that most of the student's opinions are neutral towards this axis (Student's viewpoints on the virtual learning tools.)

**Table (4) Illustrates the mean and stander deviation and Chi-Square and of freedom and P . Value of answering the Statements of the second axis "**

Statements	Means	STD	Ch <sup>2</sup>	D.F	P.value
1. I think that learning via the Internet is easier than traditional one.	2.8	1.3	8.96	4	0.06
2. Virtual learning helped me develop my skills in using technology.	2.8	1.3	18	4	0.01
3. Virtual learning helped me develop my grades in assessments.	3.1	1	3.8	3	0.29
4. Virtual learning helped me reduce stress during assessment time.	3	0.8	0.81	2	0.67
5. I prefer returning to the traditional learning-based system to have good marks on the assessments.	4.3	0.8	19	3	0.00
6. Learning Virtually is the best way of learning I have ever experienced.	2.7	1.5	6	4	0.19

The above table indicates the mean, standard deviation, Chi-Square, degree of freedom, and P- Value regarding the answers of respondents of the study sample about the above Statements; it has been noticed that some means are greater than the mean stated in a hypothesized mean which is about (3) that implies that all means of these Statements are in the positive direction and show that the standard deviation ranges from (0.8 to 1.5) that means there are similarity and homogeneity of answers made by respondents which pointed that the P . Value of most of the Statements is more than 0.05 significance. This indicates that there are no statistically significant differences in the answers of the sample members.

### 3- The effect of virtual learning tools on the student's academic performance.

**Table (5) Distribution frequency and percentage answering of sample study about Items the third axis.**

Item	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Percentage	Sample orientation
1. The Direct English Centre has provided us with all the capabilities that support me as a student for a rapid transition from	5 15.6%	6 18.8%	8 25%	9 28.1%	4 12.5%	60%	Neutral

traditional teaching to Virtual learning.							
2. I have completed learning all the outcomes of all the courses in the course specification.	4 12.5%	11 34.4%	3 9.4%	7 21.9%	7 21.9%	58%	Neutral
3. Virtual learning decreases my grades in assessments.	2 6.3%	9 28.1%	8 25%	7 21.9%	6 18.8%	56%	Neutral
4. Learning Virtually is only time-consuming.	16 50%	10 31.3%	1 3.1%	5 15.6%	-	84%	Strongly agree

It is clear from the table (5) above that 60% of the sum of the whole respondents are neutral that " The Direct English Centre has provided us with all the capabilities that support me as a student for a rapid transition from traditional teaching to Virtual learning."

As we see, 58% of the study sample answered that they Agree that " I have completed learning all the outcomes of all the courses in the course specification ".

We also find that 56% of the study sample answered that they were neutral " Virtual learning decreases my grades in assessments ".

As found, 86% Strongly agree that " Learning Virtually is only time-consuming".

From this, we conclude that most of the student's opinions are neutral towards this axis (The effect of virtual learning tools on the student's academic performance).

**Table (6) The mean, standard deviation, Chi-Square, degree of freedom, and P. Value of answering the Statements are all illustrated in the second axis**

Statements	Means	STD	Ch <sup>2</sup>	D.F	P. value
1. The Direct English Centre has provided us with all the capabilities that support me as a student for a rapid transition from traditional teaching to Virtual learning.	3	1.3	2.7	4	0.61
2. I have completed learning all the outcomes of all the courses in the course specification.	2.9	1.4	6	4	0.19
3. Virtual learning decreases my grades in assessments.	2.8	1.2	4.6	4	0.34
4. Learning Virtually is only time-consuming.	4.2	1	15.8	3	0.01

The mean, standard deviation, Chi-Square, degree of freedom, and P-Value are all shown in the table above. Regarding the responses of study questionnaires distributed to the above Statements, it has been noted that some means are greater than the mean specified in a hypothesized mean of about (3), implying that all means of these Statements are in the positive direction and indicate that the standard deviation ranges from 1 to 1.4 indicates that respondents' responses are identical and homogeneous. The p. value of most of the Statements is greater than 0.05 importance, according to this. This means that no statistically relevant variations exist between the responses of the sample participants.



**5.2 Second question: To what extent does V-learning affect students' performance within the assessment from their perspectives?**

**Table (7) displays the mean and standard deviation, as well as the likelihood value of the (T) measure, to determine if there are statistically significant variations in the students' grades before and after covid-19.**

test grades	Mean	Stander deviation	(T)	DF	p. value
After Covid -19	67.89	13.9	0.85	27	0.40
Before Covid 19	70.81	11.2			

The result in the above table(7) explains that the mean of test marks after the covid -19 test is equal then (67,89) and the mean of test marks in Before covid 19 equal to (70,81). , and show that the p.value tabulated in T.test equal (0.40) less than the p-value calculated (0.85) at a significant level (0.05), indicating that there is a significant deferent between the two means of after-test and Before test covid 19 in favor of pretest.

**6. Conclusion:**

COVID-19 impacted the conventional learning method of academic institutions across the world. The administrations of schools, colleges, and universities opted for online lectures/classes as an alternative way to resume education. Although online learning is proving helpful in safeguarding students' and faculty's health amid the COVID-19 pandemic, however, it is not as effective as conventional learning.

This study aimed to investigate the effectiveness of Virtual Learning on EFL learners' performance, especially for students of higher education in the English Language Centre.

As per this study, 56% of students were neutral in saying that Virtual Learning helped in developing their skills using technology. Also, 62% of the sum answered neutrally that Virtual learning helped in developing their assessment grades. About 60% of the students answered neutrally that, Virtual learning helped them reduce stress during assessment time, whereas 86% of the study sample answered that they strongly agree to return to a traditional learning-based system to have good marks in the assessments.

And about that 60% of the sum of the whole respondents are neutral that " The Direct English Centre has provided them with all the capabilities that support them as a student for a rapid transition from traditional teaching to Virtual learning."

From what was mentioned above, the study concluded that most of the student's opinions are neutral towards the effect of virtual learning tools on the student's academic performance.

When analyzing the results of final assessments before and After the Pandemic time, the study declared there is no statistically significant difference in the mean ranking. This result indicated that they prefer traditional learning to Virtual learning.

**6.1 Recommendations:**

This research was carried out in the initial phase of the COVID-19 outbreak period and was performed on a small population and males only. The study recommends that other researchers uncover the resolution of obstacles experienced by male students when learning virtually, and a large-scale survey is needed that would guarantee a fair representation of the target population of all undergraduate students – both genders - studying in higher educational institutions in Saudi Arabia.

**6.2 Limitations and suggestions for future research**

The research was conducted on a relatively small population, 23 Saudi male students who were randomly selected in the English group Centre and were studying the English Language. It limits our ability to generalize from this study that all Saudi students have properly educated knowledge of COVID-19 and endorse the introduction of Virtual learning in different higher education institutions. Secondly, a large-scale survey is required to ensure that the target population of all Saudi students studying at higher education institutions is equally represented.

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