Measuring University Students' Perceptions and Attitudes toward Sudden Transition to Online Learning and Academic Self- Efficacy

Mona Saad Alamri*

Department of Psychology, University of Jeddah, KSA

Corresponding author: Mona Saad Alamri, E-mail: msalamri2@uj.edu.sa

ARTICLE INFO

ABSTRACT

Online learning has unquestionably shaped contemporary education. The emergence and spread in recent months of the COVID-19 virus, with the attendant preventative implementation of social distancing, has significantly enhanced online learning's influence. In the Kingdom of Saudi Arabia, where strict social distancing precautions were implemented early in the pandemic, thousands of college students were rapidly shifted from conventional to online instructional environments. Now that these students have a semester of experience with online learning, the time is propitious to explore these students' online learning experiences. One concept in connection with which students' online learning experiences have not been extensively studied is that of academic self-efficacy. The present study seeks to investigate Jeddah University students' experiences with online learning in light of their assessments of their academic self-efficacy. Employing a combined descriptive/correlational research design organized around a pair of survey instruments—one designed to query students' online learning experiences and a second designed to measure their senses of their academic self-efficacy—the present study investigates attitudes of a population of 1,167 Jeddah University undergraduate students randomly selected from the available pool of 16,893 individuals. The study finds that student attitudes with respect to both online learning and self-efficacy are high. It shows, furthermore, significant statistical correlation between students' highly positive experiences with online instruction and their high senses of their academic self-efficacy. By developing the understanding regarding student attitudes and self-efficacy, this research opens avenues for further research into the connections between online learning and students' self-perceptions. Moreover, the study's findings hold significant implications for bettering Saudi Arabian e-learning, an outcome fully in keeping with the policy goals outlined in the 2030 vision.

Key words: Online Learning, Academic Self-Efficacy, Student Perceptions

INTRODUCTION

Existing online learning technologies and strategies have changed the education system. The rise of online learning and the expansion of E-learning trends have transformed learning in its traditional sense, and more universities around the world are adopting E-learning. Presently, many people have access to personal computers and the internet. These two factors have contributed a great deal to the concept of online learning as almost all people can take online classes in the comfort of their homes (Zhang & Zhou, 2003). Something else that has facilitated the popularity of online learning is having a system that facilitates the learning requirements of diverse students.

In the past, education was limited to a traditional teaching space, usually in a lecture hall setting. Nevertheless, this concept is slowly becoming obsolete as learners demand a learning environment that they can access from all places (O'Malley & McCraw, 1999). Through online learning, learners across the globe can receive education at the same time despite their geographical variations. Learners can also access education anywhere—at home, while travelling, during vacation—as long as there is internet.

The Kingdom of Saudi Arabia has intensified its efforts to improve and reform the education system reflecting the goals of the 2030 vision, which focuses on bettering learning outcomes and training programs through all stages of learning from early childhood education to continuing lifelong learning (Khan, 2016). Considering the current conditions related to the spread of the COVID-19, universities, colleges and schools in Saudi Arabia rushed to employ online learning. The switch was made to overcome challenges related to social distancing, which was deemed necessary to stop the virus from spreading and flatten the curve. It is no surprise that educational establishments here are not coping well with the latest developments and challenges to provide effective learning through online platforms and virtual classrooms.

The sudden transition, unreliable technical infrastructure, and the learning culture, in addition to the adoption model taken on by institutions, are some of the reasons that may explain the struggle in delivering high quality online learning.

In the past 20 years, a lot of opportunities have been introduced to students via use of computer networks. Students can now access education at a distance university and even graduate without ever stepping into a traditional classroom. Nevertheless, this is a new area in educational research. As a result, researchers have originated different terminologies to refer to online learning. These terminologies include distance education, e-learning, web-based education programs, online instruction, and online education (Gluchmanova, 2015; Moore et al., 2011).

Scholars have investigated the relationship between learning and technology. Zhao (2003) found that the impacts of any technology on learning results depend on its utilization, and unless it is used appropriately, it might not have any positive impact on learning. Additionally, Zhao (2003) asserts that the effectiveness of e-learning depends on several variables, and the student is the main factor for the success. In keeping with this finding, scholars have examined the attitudes of learners towards e-learning in an educational context. They found that students' attitudes to e-learning were strong predictors of whether students would benefit from e-learning at the utmost level and whether it would have an impact on their success (Akbari et al., 2012; Cinkara & Bagceci, 2013). However, for this tool to be effective, a number of conditions should be met. As emphasized, the effectiveness of e- earning is influenced by student access to internet, material, and their readiness to accept and learn well from e-learning (Tallent-Runnels et al. 2006). Additionally, it is also stated that there are eight factors affecting student success in e-learning: access to tools, technology experience, learning preferences, study habits, goals, purposes, lifestyles, and personal traits (Schrum & Hong, 2002). As clearly pointed out, the learners' attitudes towards e-learning is one of the critical issues related to taking advantage of e-learning in impacting students' willingness to take responsibility for their own learning.

It has been found that students who have already had exposure to computers in their classrooms have shown improved writing skills compared to students without exposure to computers in their classrooms. Furthermore, these students have been more amenable to taking courses that are delivered entirely online (Behjat et al., 2011; Castaño-Muñoz et al., 2014). Erarslan and Topkaya (2017) indicated that students have partly positive attitudes towards online courses. The increasing trend to apply online learning at colleges and universities has been in response to increasing numbers of online students. This has forced more universities to include e-learning in their strategic planning so as to meet the increasing demand (Allen & Seaman, 2011).

According to El-Gamal and El-Aziz (2012), university students from developing countries also have a voice in the matter of e-learning. Their attitudes about online learning vary, although most of them have positive attitudes. This is evident from findings by Nassoura (2012) who found that many students' positive attitude towards e-learning was based the positive academic motivation they received from e-learning. However, students do not always have a positive attitude towards online learning. According to Adams and Defleur (2005), students are resistant to online courses since they do not view them as a worthy form of education. Inability to work independently, low motivation, lack of computer skills, and technological anxiety are some of the other main reasons why students have a negative attitude towards online learning (Gaziano & Liesen, 2004; Holcomb et al., 2004). Moreover, students feel that e-learning does not provide the sense of membership and connection offered by traditional learning spaces (Crawford & Rausch, 2012, p. 104). This feeling of not belonging makes their attitude towards pure online learning unfavorable.

Academic Self-Efficacy

Self-efficacy is a key personal variable of Bandura's Social Cognitive Theory (SCT) Bandura defined self-efficacy as "an individual's belief in his or her own ability to organize and implement action to produce the desired achievements and results" (Bandura, 1997, p. 3). Prior studies have provided strong evidence that academic self-efficacy is a positive predictor of performance outcomes in different subjects (Schunk & Pajares, 2009; Usher & Pajares, 2008). Academic Self-efficacy represents the student's belief that he or she can successfully perform a task (Bandura, 1997; Pajares, 1996; Schunk, 1991). Researchers have found that students with high self-efficacy are more likely to make use of deep cognitive strategies and to engage in self-regulation than students with low self-efficacy (Meece et al., 1988; Schunk & Ertmer, 2000; Silver et al., 2001; Wolters & Pintrich, 1998; Zimmerman, 2000, 2002; Zimmerman et al., 1992). Additionally, many studies have shown that efficacy and competence judgments, interest and value beliefs as well as goal orientations can facilitate or impede the use of self-regulated learning strategies. Through these studies, the chain of relations between motivational factors and self-regulated processes, and between self-regulated processes and academic learning or performance has been studied implicitly (Neuville et al., 2007).

An important determinant of motivation and performance is self-efficacy, which refers to individuals' beliefs in their ability to perform an expected task (Bandura, 1997; Zimmerman, 2000). According to Artino (2012), self-efficacy is determined based on four main aspects. These are observation of others, mastery experience, affective states that perceive capability, strength, and vulnerability, and persuasion by others. Among these four aspects, mastery experience is considered to be the most important. It focusses on helping individuals persist through failure as a way to gain personal resources.

Wang and Castañeda-Sound (2008) contend that in academic research of self-efficacy, there are two areas which are the main focus. The first area pertains to investigating the relationship which exists between efficacy beliefs, college major, and career choice. The second area focuses

Measuring University Students' Perceptions and Attitudes toward Sudden Transition to Online Learning and Academic Self- Efficacy

155

on exploring the connection between efficacy beliefs that pertain to psychological constructs and academic achievement and motivation. According to research conducted by Honicke and Broadbent (2015), students who believed they were capable of performing their academic responsibilities adequately excelled best in comparison to those who did not believe they were capable.

Bandura (1977, 1997) conducted and documented some research that supported the role of self-efficacy in predicting and explaining behavior in humans. Artino (2012) summarized extensive literature on academic self-efficacy. The first point he found out was that the perceptions an individual has on their abilities and efforts play a crucial role in determining their academic behaviors and skills. Artino (2012) also found that self-efficacy plays a significant role in motivating students and individuals to accomplish great things in life. Therefore, there is a correlation between self-efficacy and self-beliefs.

All these show that the effects of e-learning on student achievement in the learning process can be related to student effort and their attitudes towards utilizing e-learning. Therefore, evaluating the success of e-learning is indeed tied to the success of its users. For this reason, in the current study, learners' attitudes towards e-learning, the impact of e-learning on learners' success in their education programs, and e-learning's relationship with students' academic self-efficacy will be investigated. Since there are only a few studies concerning e-learning in the learning and teaching process addressing tertiary education, and the pandemic crisis has significantly increased institutions' inclination toward E-learning, it is very important to determine students' perspectives on E-learning. This study attempts to investigate Jeddah University students' attitudes towards the sudden transition to E -learning and its effects on academic self-efficacy. With this aim in mind, the study tries to find answers to the following research questions:

RQ$_1$. What are the attitudes of Jeddah University students towards e-learning?

RQ$_2$. What is the level of academic self-efficacy among students at the University of Jeddah?

RQ$_3$. Is there a significant correlation between e-learning and academic self-efficacy among Jeddah University students?

Study Purpose

The importance of this study can be explained fully along the lines of the 2030 vision that stresses bettering learning outcomes and training programs through all stages of learning from early childhood education to continuing lifelong learning. So, using e-learning is embedded into formal education in many institutions in Saudi Arabia, particularly in higher education. Many universities provide some portion of the curriculum through virtual classes, attempting to enhance instruction with the help of e-learning. This study concentrates on the assessment of Jeddah university students' attitudes towards e-learning in Saudi Arabia, accentuating the utilization and advantages of e-learning.

Methodology

Research design

This study utilized a combination of descriptive and correlational approaches, the appropriate method for describing the phenomenon in terms of its nature and degree of existence qualitatively and quantitatively. In addition, this combined approach enabled the researcher to provide a comprehensive description and accurate diagnosis of the reality of the phenomenon studied. The approach was anchored in the use of two subscales: "Students' Attitudes Toward E-learning Transition," and the "Academic Self-Efficacy" assessment originated by Chemers, Hu, and Garcia (2001).

Participants

The study community included all the undergraduate students at Jeddah University enrolled for the second semester of the 2019-2020 academic year. According to data provided by the Department of Admissions and Registration at Jeddah University, the total number of individuals in this group numbered 16,893. The study sample consisted of 1,167 students selected randomly from the available pool. Table 1 shows the distribution of the randomly selected members according to the variables of gender and education level.

Data collection instruments

To achieve the goal of the study, which is to reveal the attitudes of Jeddah University students towards e-learning and its relationship to academic self-efficiency, the study used the following tools:

Instrument One: Attitudes towards E-Learning Scale

Description. The measure of student attitudes towards e-learning was prepared after reviewing theoretical literature and previous studies related to the subjects of this study (Erarslan & Topkaya, 2017; Rhema & Miliszewska, 2014; Borozdina, 2019). Comprising a total of 28 items, the scale is divided into four areas: technical field (paragraphs 1-7); academic field (paragraphs 8-14); psychological field (paragraphs 15-22); and evaluation (paragraphs 23-28). Each section corresponds to Likert's five-point scale (strongly agree, agree, neutral, disagree, strongly disagree).

Content and Construct Validity. The authenticity of the content of the scale was verified by referring items broken down by area to a group of seven experienced and competent

Table 1. Gender and Education of Study Participants

Variable	Category	Frequency	Percentage
Gender	Female	755	64.69
	Male	412	35.30
Education level	Diploma	62	5.32
	Bachelor	895	76.69
	Graduate	210	17.99
Total		1167	100

arbitrators. These arbitrators, Saudi university faculty members specializing in measurement, evaluation, and psychology, judged the items' validity, comprehensiveness, linguistic integrity, and affiliation to the field into which they were classified. It was as a result of the feedback received from these evaluators that the Attitudes Towards E-Learning Scale was organized into the 28-item, four-area structure. Individual items were investigated also to ensure construct validity. Researchers applied the Pearson to a sample of 30 students and then calculated the values of Pearson's correlative coefficient between the grade of each item and the degree pertaining to the field, along with the overall score on the scale, as reflected in Table 2.

It should be noted from Table 2 that the values of the transactions of the technical area items within their domain ranged from 0.581 - 0.749 and between 0.462 - 0.631 with the total grade of the scale. The values of the coefficients of the association of the academic area items to their field ranged from 0.684 - 0.879 and between 0.660 - 0.799 with the total degree of the scale. The values of the coefficients of the association of the items of the psychological area to their domain ranged from 0.694 - 0.840 and between 0.650 - 0.805 with the total grade of the scale. The values of the coefficients of the evaluation area items to their domain disaggregated Ely between 0.624 - 0.854 and between 0.463 - 0.777 with the total grading of the scale.

All of these values were statistically significant at the indicative level of 0.01. All coefficients were higher than 0.30. These numbers indicate the acceptability of retaining the items in the areas within which they are currently organized as valid measures within those areas (Hattie, 1985). As a consequence of this evaluation, all sections of the scale were codified into the 28-item final version utilized in the study.

Reliability. To estimate the reliability of the scale of students' attitude towards e-learning, researchers used the Cronbach's Alpha Equation to estimate the reliability and internal consistency of the data of the first application of the survey to a total of 30 students as shown in Table 3. It is clear from Table 3 that the reliability of the internal consistency of the overall scale was 0.858, while the reliability of the values of internal consistency regarding its areas ranged from 0.785 - 0.823. These values indicate a good degree of reliability for the scale.

Correcting the scale. The measure of different attitudes towards e-learning in its final form consisted of 28 items distributed over four areas. Answers to each item are organized into a five-point Likert scale as follows: strongly agree (5 points); agree (4 points); neutral (3 points); disagree (2 points); and strongly disagree (1 point). This range has been divided into three categories to reach the objective judgment on the averages in individual responses from the highest to the lowest by subtracting the upper limit of the minimum (5-1= 4), dividing the output by 3 (4/3=1.33), and then adding this value to the lowest value in the scale (1). Based on these calculations, researchers structured the categories for organizing the averages as follows:

Low (less than or equal to 2.33)
Medium (between 2.34 and 3.66)
High (greater than 3.66)

Instrument Two: Academic Self-Efficacy Measure

Description. To reveal the level of self-efficacy of Jeddah university students, the researcher used the academic self-efficacy measure developed by Chemers, Hu, and Garcia (2001). The scale consists of 9 items, each of which can take one of seven values corresponding to a Likert scale ranging from strongly opposed to strongly agree.

Table 2. Pearson's Correlation Coefficients: Instrument One

Domain	Number	Link with domain	Association with the total grade	Number	Link with domain	Association with the total grade
Technical	1	0.581**	0.462**	5	0.720**	0.585**
	2	0.672**	0.599**	6	0.725**	0.631**
	3	0.680**	0.569**	7	0.749**	0.630**
	4	0.721**	0.513**			
Academic	8	0.879**	0.773**	12	0.835**	0.775**
	9	0.821**	0.762**	13	0.684**	0.660**
	10	0.782**	0.773**	14	0.861**	0.769**
	11	0.864**	0.799**			
Psychological	15	0.809**	0.805**	19	0.840**	0.779**
	16	0.791**	0.743**	20	0.820**	0.788**
	17	0.694**	0.650**	21	0.759**	0.724**
	18	0.794**	0.702**	22	0.827**	0.757**
Evaluation	23	0.846**	0.777**	26	0.854**	0.721**
	24	0.624**	0.463**	27	0.769**	0.619**
	25	0.850**	0.684**	28	0.735**	0.707**

*Function statistically at the level of (0.05). *Function statistically at the level of (0.01)

Measuring University Students' Perceptions and Attitudes toward Sudden Transition to Online Learning and Academic Self- Efficacy

157

Table 3. Internal Consistency Coefficients: Instrument One

Number of Items	Reliability of internal consistency Cronbach Alpha	Domain
7	0.823	Technical
7	0.791	Academic
8	0.785	Psychological
6	0.812	Evaluation
28	0.858	Total

Table 4. Pearson's Correlation Coefficients: Instrument Two

Number	Association with the total grade	Number	Association with the total grade
1	0.708**	6	0.765**
2	0.732**	7	0.743**
3	0.776**	8	0.699**
4	0.601**	9	0.724**
5	0.612**		

*Function statistically at the level of (0.05). *Function statistically at the level of (0.01)

Content and Construct Validity. The authenticity of the content of the scale was verified by referring items to a group of seven experienced and competent arbitrators. These arbitrators, Saudi university faculty members specializing in measurement, evaluation, and psychology, judged the items' validity, comprehensiveness, and linguistic integrity. It was as a result of the feedback received from these evaluators that the Academic Self-Efficacy Measure was codified into the 9-item final form used in this study. The indicators of construct credibility were achieved by applying the Pearson scale to a survey consisting of 30 students from outside the study sample. The Pearson's correlation coefficients between each item and the overall scale were the calculated, as reflected in Table 4.

It should be noted from Table 4 that the values of the coefficients of the scale sections with the total grade of the scale ranged from 0.601 - 0.776. All of these values function statistically at the indicative level 0.01. All the coefficients are superior to 0.30. These numbers indicate the acceptability of retaining the items in the areas within which they are currently organized as valid measures within those areas (Hattie, 1985). Based on this assessment, researchers adopted the 9-item scale as the instrument with which student self-efficacy would be measured for the present study.

Reliability. To estimate the reliability of the academic self-efficiency measures, researchers used Cronbach's Alpha equation to estimate the reliability of internal consistency on a first application of the data collected from the 30 students surveyed. The internal consistency coefficient of the measure was 0.841, which is high and acceptable for the purposes of applying to the study.

Correcting the Scale. The measure of academic self-efficiency in its final form consists of 9 items, each with 7 possible choices ranging from strongly disagree (allocated 1 point) to strongly agree (allocated 7 points). Researchers divided this range into three categories in order to reach an objective judgment on the averages of the responses. This division was accomplished by subtracting the upper limit, 7-1=6, dividing the output by 3, 6/3=2, and then adding this value to the lowest value in the scale, 1, to yield the following average categories:

Low: less than 3
Medium: between 3 and 5
High: greater than 5

Procedures

To achieve the objectives of the study, the researcher followed the following steps and procedures:
- Building study instruments based on previous literature and previous studies related to the subject.
- Verifying the apparent validity of the study tools by presenting the initial version of the study tools to a group of specialists in the field of measurement, evaluation and psychology, to take their opinions and suggestions in terms of the clarity of the phrases and paragraphs and their occasion, and then modify them in the light of their proposals.
- Checking the indications of validity and consistency of the study tools by applying them to the survey sample.
- Preparing the study instruments electronically and sending their link to the study members with explanations of the study objective and requests that they provide their honest opinions.

Collecting data and entering it into the computer for statistical processing.

Variables

The study included the following variables:
- Students' attitudes towards e-learning.
- Academic self-efficacy.

Data analysis

Statistical data processing in this study was carried out using the Social Science Statistical Package (SPSS) as follows:
- To answer the first question of the study, the arithmetic averages and standard deviations of sample members' responses to the Attitudes Toward E-Learning Scale were calculated.
- To answer the second question of the study, the calculation averages and standard deviations of the sample members' responses to the Academic Self-Efficacy Measure were calculated.
- To answer the third question of the study, Pearson's correlation values were calculated between students' attitudes towards e-learning and their academic self-efficacy.

RESULTS

The study aimed to reveal the attitudes of Jeddah University students towards e-learning and to evaluate the relationships

between these attitudes and their academic self-efficacy. The first step of this assessment, as indicated above, involved addressing the study's first question, "What are the attitudes of Jeddah University students towards e-learning?" Addressing this question required calculation of the arithmetic averages and standard deviations of the sample members' responses to the Student Attitudes Towards E-Learning Scale, taking into account the order of the scale areas of the study sample down according to their calculations, as shown in Table 5.

It is clear from Table 5 that the trend of Jeddah University students towards e-learning as a whole was high. The areas of the scale came in the following order: the field of evaluation ranked first with an average of 3.922 and at the high level; the technical field ranked second with an average of 3.716 and at the high level; the psychological field ranked third, with an average of 3.585 at the moderate level; and the academic field ranked fourth, with an average of 3.524 and also at the moderate level.

The calculation averages and standard deviations of the responses of the study sample members were calculated on the Student Attitudes Towards E-Learning Items, taking into account the order of the paragraphs down according to their respective mathematical averages in each area. The following are the detailed results for each area.

Area one: Technical

To identify the attitudes of Jeddah University's students towards e-learning in the technical field, the arithmetic averages and standard deviations of the responses of the study sample members were calculated on the field items,

taking into account the order of the domain items according to their calculation averages, as shown in Table 6.

It is clear from Table 6 that the general level of the technical field was high, while the average values of the calculations of its items ranged from 4.198 on the item that states "My blackboard skills have evolved" (high level) to 3.349 on the item stating "Technical support at the university responds to me quickly" (moderate level). The researcher attributes this result to the university's efforts in training students by intensifying the number and content of training courses and positive student attitudes towards this, in addition to the speed of attention to technical problems encountered by students during e-learning according to Erarslan and Topkaya (2017) and Allen and Seaman (2011).

Area two: Academic

To identify the attitude of students of Jeddah University towards e-learning in the academic field, the arithmetic averages and standard deviations of the responses of the study sample members were calculated on the field items, taking into account the order of the domain items according to their calculation averages, as shown in Table 7.

It is clear from Table 7 that the overall level of the academic field was average, while the average values of the calculations of its items ranged from 3.738 (high) on the item reading "I can participate effectively in the virtual classes remotely" to 3.163 (moderate) on the item stating "More effective distance study." The researcher attributes these results to the learning environment itself. The guidance of teachers is specific, the academic interaction between the students and the teacher is less, and the students therefore bear a great deal of responsibility for their learning. This result is consistent with and this is supported by the studies submitted by Cavanaugh et al. (2009) and Shaer et al. (2009).

Area three: Psychological

To identify the attitude of students of Jeddah University towards e-learning in the psychological field, the arithmetic averages and standard deviations of the responses of the study sample members were calculated on the items of the field, taking into account the order of the domain items according to their calculation averages, as shown in Table 8.

Table 5. Computational Calculations and the Standard Deviations: Instrument One

Number	Rank	Domain	Mean	Standard Deviation	Level
4	1	Evaluation	3.922	0.968	high
1	2	Technical	3.716	0.591	high
3	3	Psychological	3.585	1.001	moderate
2	4	Academic	3.524	1.069	moderate
Trends towards e-learning (as a whole)			0.806	3.675	high

Table 6. Computational Calculations/Standard Deviations: Technical

Rank	Item	Mean	Standard Deviation	Level
1	My blackboard skills have evolved.	4.198	0.928	High
2	The university generally supports the use of the distance learning system	3.907	1.033	High
3	University faculty provide suppositial learning system	3.866	1.087	High
4	I can get internet and computer easily.	3.709	1.153	High
5	I have problems connecting to the Internet at the time of the lecture.	3.576	1.180	Moderate
6	The University provides the necessary technical support to help solve technical difficulties	3.407	0.996	Moderate
7	Technical support at the university responds to me quickly.	3.349	0.915	Moderate
	Overall average of the field	3.716	0.591	High

Measuring University Students' Perceptions and Attitudes toward Sudden Transition to Online Learning and Academic Self- Efficacy

159

Table 7. Computational Calculations/Standard Deviations: Academic

Rank	Item	Mean	Standard Deviation	Level
1	I can actively participate in virtual classes remotely	3.738	1.158	High
2	Using distance learning is a good idea	3.721	1.295	High
3	Options vary in participation through distance learning	3.698	1.190	High
4	The use of the distance education system has led to a high school rate	3.564	1.325	Moderate
5	Lectures in virtual classes are understandable	3.483	1.282	Moderate
6	Best study by virtual classes remotely	3.302	1.526	Moderate
7	More effective distance study	3.163	1.350	Moderate
	Overall average of the field	3.524	1.069	Moderate

Table 8. Computational Calculations/Standard Deviations: Academic

Rank	Item	Mean	Standard Deviation	Level
1	Distance learning taught me to be more independent.	3.808	1.156	High
2	During distance education, my self-confidence is high.	3.721	1.206	High
3	I communicate easily with my colleagues in distance learning	3.692	1.176	High
4	I communicate with teachers easily in distance learning	3.593	1.265	Moderate
5	I've dropped my anxiety level in distance education.	3.570	1.347	Moderate
6	Distance education broke my awe barrier	3.488	1.245	Moderate
7	In distance education, I easily exchange views with my professors.	3.430	1.266	Moderate
8	Distance learning is fun.	3.378	1.436	Moderate
	Overall average of the field	3.585	1.001	Moderate

It is clear from Table 8 that the overall level of the psychological field was moderate, while the average values of the calculations of its items ranged from 3.808 (high) to the item stating "Distance learning taught me to be more independent" to 3.378 (moderate) on the item stating "Distance learning is fun." The researcher attributes this result to the novelty of this experience for students. Switching from traditional education to distance learning is a new experience carrying many questions that made students' psychological states evince anxiety and tension.

Area four: Evaluation

To identify the attitude of students of Jeddah University towards e-learning in the field of evaluation, the arithmetic averages and standard deviations of the responses of the study of randomly selected sample members were calculated on the field items, taking into account the order of the domain items according to their calculation averages, as shown in Table 9.

It is clear from Table 9 that the overall level of the evaluation area was high, while the average scoring values for its sections ranged from 4.151 (high) to the item stating "In the online test, I see my grades immediately" to 3.500 (moderate) to the item stating that there is "More equitable distribution of degrees in distance education. The researcher attributes this result to the remarkable cooperation of the faculty members in evaluating students and the keenness of the senior management at the university to overcome the

difficulties and take into account the circumstances that students may face in academic performance.

The study's second step involved addressing the second study question, "Secondly, the results of the second study question, "What is the level of academic self-efficacy among students at the University of Jeddah?" To answer this question, the research calculated the arithmetic averages and standard deviations of the members of the study sample to the Academic Self-Efficacy Measure, ranking the scale items in descending order as shown in Table 10.

It is clear from Table 10 that the level of academic self-efficacy among students at Jeddah University was high. The values of the arithmetic averages of its items ranged between 6.209 (high) for the item reading "I have confidence and ability to succeed in college" to 4.640 (moderate) for the item stating "I have the ability to research and write scientific papers." The researcher attributes this result to the high level of independence among students in addition to the cooperation of faculty members in providing assistance to students, whether academic, psychological or technical, which led to a higher psychological morale and thus to the increased level of academic self-effectiveness.

The third and final step of this study involved addressing the third study question, "Is there a statistically significant correlation at the level of significance ($\alpha = 0.05$) between e-learning and academic self-efficacy among Jeddah University students?" To answer the study's third question, the values of Pearson's correlation coefficients were calculated between e-learning and academic self-efficacy in the study sample, as shown in Table 11.

Table 9 . Computational Calculations/Standard Deviations: Evaluation

Rank	Item	Mean	Standard Deviation	Level
1	In the online test, I see my grades immediately.	4.151	1.071	High
2	I'd rather raise my homework by blackboard.	4.116	1.144	High
3	The best electronic tests in periodic tests	4.041	1.263	High
4	Delivering duties and costs is easier via blackboard	3.890	1.263	High
5	Best electronic tests in final tests	3.831	1.372	High
6	More equitable distribution of degrees in distance education	3.500	1.286	Moderate
Overall average of the field		3.922	0.968	High

Table 10. Computational Calculations/Standard Deviations: Instrument Two

Rank	Item	Mean	Standard Deviation	Level
1	I have the confidence and ability to succeed in college.	6.209	1.428	High
2	I'm a great student.	6.035	1.311	High
3	I'm outstanding in academic missions.	5.733	1.494	High
4	I understand my academic duties well.	5.552	1.690	High
5	I find in college fun and excitement.	5.250	1.920	High
6	I have the ability to take notes.	5.174	1.778	High
7	I have the ability to prepare for the tests well.	5.128	1.960	High
8	I have the ability to schedule and organize my time to accomplish my academic duties.	5.064	1.944	High
9	I have the ability to research and write scientific papers.	4.640	2.085	Moderate
Self-academic effectiveness (Total)		1.224	5.421	High

Table 11. Pearson's Correlation Transactions: E-Learning and Academic Self-Efficacy

Variable	Academic Self-Efficacy
Technical Field	0.515**
Academic Field	0.507**
Psychological Field	0.527**
Evaluation Field	0.465**
Attitudes Towards E-Learning (Total)	0.569**

* Function statistically at (0.05). ** Function statistically at (0.01)

It is clear from Table 11 that there is a positive correlation statistically functioning at the level of significance ($\alpha= 0.01$) between Jeddah University students' attitudes towards e-learning as a whole and their academic self-efficacy. The value of this relationship, 0.569, and the existence of positive correlations statistically function at the level $\alpha= 0.01$ between all areas of the scale of trends towards e-learning and academic self-effectiveness. Values for the individual areas ranged from 0.527 in the psychological field to 0.465 in the field of evaluation. The researcher attributes this result to the support provided by the university and accompanying the transition from traditional university education to distance education, whether it is technical support in facilitating the work of websites and providing technical communications and implementation, moral support in providing academic and psychological guidance services simultaneously with the transition period, or educational support encompassed by the provision of a number of training sessions and workshops for students to assist them in effective use of the university's web site.

DISCUSSION

According to the results, the answer to the first research question is positive. As identified in Table 5, Jeddah University students have a high perception of e-learning, reflecting a positive attitude towards it. Therefore, it is safe to conclude that Jeddah University students' value online learning and are open to engaging in online classes. However, the results varied depending on the categories of technical, academic, psychological, and evaluation. According to Table 6, students are very capable of dealing with technical requirements for e-learning. Nonetheless, they sometimes find it challenging to connect to lectures on time and get a quick response from university technical support.

Nevertheless, something can be done to improve these difficulties. According to Table 7, students have a moderate attitude on access to academics online. They can easily access virtual classes, and they think e-learning is a good idea. However, they have a moderate understanding of virtual class lectures, contributing to their moderate attitude in this area. According to Table 8, students have a moderate perspective on the psychological aspects of distance learning. It has taught them to be independent, improving their communication skills and self-confidence. Nonetheless,

Measuring University Students' Perceptions and Attitudes toward Sudden Transition to Online Learning and Academic Self- Efficacy

161

their feelings are moderate about communication with teachers, anxiety on distance learning, and exchange of views with teachers. Nevertheless, this can be improved to make their learning experience even more outstanding results. According to Table 9, the attitude in the evaluation area was high. Students were very confident about online evaluation, which was mainly attributed to cooperation with the faculty. All these tables sum up the high attitude between Jeddah University students towards e-learning.

The study's results reflect affirmative answers to research questions two and three. The results show that, in answer to the second research question, the level of academic self-efficacy among students at Jeddah University was high. This is evident from the results displayed in Table 10. The positive effects are mainly attributed to increased morale following positive attitude and experiences with e-learning. Increased motivation leads to an increased level of academic self-efficacy among students. The third and final question concerning the statistical correlation between e-e-learning and academic self-efficacy is answered in the affirmative by the results of the study. These results indicate that the correlation is positive; as identified in Table 11, the correlation has statistical significance of 0.569.

CONCLUSION

The results of this research demonstrate great acceptance among Jeddah University students toward online learning. This is evident from the high perception and attitude towards e-learning as evident from the statistical analysis in the previous sections. These results are also attributed to the positive growth among university students, such as increased self-confidence, increased ability to work independently, and improved communication with other students. The correlation significance is also high given that it is at 0.569. This shows the positive relations that exist between e-learning and academic efficacy, a correlation that implies that e-learning is related to the student's belief in their abilities to work and deliver results. Therefore, we can conclude that students who are comfortable engaging in online learning are those who believe in their own abilities to work with minimal supervision and to meet all expected goals and objectives in their academics. From these results, we can also conclude that university students have a positive attitude and perception towards sudden transition to online learning and self-efficacy. They are ready to transition to online learning, although some few changes need to be done to ensure they are well prepared for this transition. Some of the recommendations include training students on how to adequately handle and navigate Blackboard and other platforms used by students and ensuring immediate technical support. Students should also be advised on improving their internet connection and dealing with poor connections during remote classes. An orientation program is more suited to ensuring that students learn what is expected of them and how to conduct themselves during the online learning process. This will enhance the e-learning experiences of university students and help improve access to e-learning in all regions.

REFERENCES

Adams, J., & DeFleur, H. (2005). The acceptability of a doctoral degree earned online as a credential for obtaining a faculty position. *American Journal of Distance Education, 19*(2), 71-85. https://doi.org/10.1207/s15389286ajde1902_2

Akbari, E., Eghtesad, S., & Simons, R. (2012). Students' attitudes towards the use of social networks for learning the English language. *International Conference: "ICT for Language Learning, 5th Edition."* https://conference.pixel-online.net/conferences/ICT4LL2012/common/download/Paper_pdf/357-IBT70-FP-Akbari-ICT2012.pdf

Allen, E., & Seaman, J. (2011). Going the distance: Online education in the United States. https://sloanconsortium.org/publications/survey/going_distance_2011

Artino, Jr., A. R. (2012). Academic self-efficacy: From educational theory to instructional practice. *Perspectives on Medical Education, 1*(2), 76-85. https://doi.org/10.1007/s40037-012-0012-5

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review, 84*(2), 191-215.

Bandura, A. (1997). *Self-efficacy: The exercise of control.* W.H. Freeman/Times Books/Henry Holt & Co.

Behjat, F., Yamini, M., & Bagheri, M. (2011). Adjunct learning: Mixing the cyber world with face-to-face writing instruction. *International Review of Social Sciences and Humanities*, *2*(1), 230-239.

Borozdina, N. (2019). Russian university EFL students' perceptions of a two-week online academic writing course. Theses and Dissertations. https://scholarworks.uark.edu/etd/3186

Castaño-Muñoz, J., Duart, J. M. & Sancho-Vinuesa, T. (2014). The Internet in face-to-face higher education: Can interactive learning improve academic achievement? *British Journal of Educational Technology, 45*(1), 149-159. https://doi.org/10.1111/bjet.12007

Cavanaugh, C., Barbour, M., Brown, R., Diamond, D., Lowes, S., Powell, A.Van der Molen, J. (2009). Research committee issues brief: Examining communication and interaction in online teaching. Vienna, VA: International Association for K-12 Online Learning. https://www.inacol.org/research/docs/NACOL_QualityTeaching-lr.pdf

Chemers, M. M., Hu, L., & Garcia B. F. (2001). Academic self-efficacy and first-year college student performance and adjustment. *Journal of Educational Psychology, 93*(1), 55-64. https://doi.org/10.1037/0022-0663.93.1.55

Cinkara, E. & Bagceci, B. (2013). Learners' attitudes towards online language learning; and corresponding success rates. *Turkish Online Journal of Distance Education, 14*(2), 118.

Crawford, E. & Rausch, D. (2012). Hybrid learning model: Best practice in doctoral level learning. In T. Bastiaens & G. Marks (Eds.), *Proceedings of World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education 2012*, (pp. 102-108). AACE.

El-Gamal, S., & El-Aziz, R. A. (2012). Improving higher education in Egypt through e-learning programs: HE stu-

dents and senior academics perspective. *International Journal of Innovation in Education, 1*(4), 335-361. https://10.1504/IJIIE.2012.052738

Erarslan, A., & Topkaya, E. Z. (2017). EFL students' attitudes towards e-Learning and effect of an online course on students' success in English. *Literacy*, *3*(2), 80-101.

Gaziano, J., & Liesen, L. (2004). Student attitudes toward online learning: A case study. Presented at the Illinois Political Science Association Conference.

Gluchmanova, M. (2015). The importance of ethics in the teaching profession. *Procedia – Social and Behavioral Sciences, 176*, 509-513. https://doi.org/10.1016/j.sbspro.2015.01.504

Hattie, J. (1985). Methodology review: Assessing unidimensional of tests and ltenls. *Applied Psychological Measurement, 9*(2),139-164. https://doi.org/10.1177/014662168500900204

Holcomb, L. B., King, F. B., & Brown, S. W. (2004). Student traits and attributes contributing to success in online courses: Evaluation of university online courses. *Journal of Interactive Online Learning, 2*(3), 1-17.

Honicke, T., & Broadbent, J. (2016). The influence of academic self-efficacy on academic performance: A systematic review. *Educational Research Review, 17, 63-84.* https://doi.org/10.1016/j.edurev.2015.11.002

Khan, M. (2016). Saudi Arabia's vision 2030. *Defense Journal, 119*(11), 36-42.

Meece, J. L., Blumenfeld, P. C., & Hoyle, R. H. (1988). Students' goal orientations and cognitive engagement in classroom activities. *Journal of Educational Psychology, 80*(4), 514-523. https://doi.org/10.1037/0022-0663.80.4.514

Moore, J. L., Dickson-Deane, C., & Galyen, K. (2011). E-learning, online learning, and distance learning environments: Are they the same? *The Internet and Higher Education 14*(2), 129-135. https://doi.org/10.1016/j.iheduc.2010.10.001

Nassoura, A. B. (2012). Students' acceptance of mobile learning for higher education in Saudi Arabia. *International Journal of Learning Management Systems, 1*(1), 1-9. 10.12785/ijlms/010101

Neuville, S., Frenay, M., & Bourgeois, E. (2007). Task value, self-efficacy and goal orientations: Impact on self-regulated learning, choice and performance among university students. *Psychologica Belgica, 47*(1-2), 95-117. http://doi.org/10.5334/pb-47-1-95

O'Malley, J., & McCraw, H. (1999). Students' perceptions of distance Learning, online learning and the traditional classroom. *Online Journal of Distance Learning Administration, 2.*

Pajares, F. (1996). Self-efficacy beliefs in academic settings. *Review of Educational Research, 66*(4), 543-578. https://doi.org/10.3102/00346543066004543

Rhema, A., & Miliszewska, I. (2014). Analysis of student attitudes towards e-learning: The case of engineering students in Libya. *Issues in informing science and information Technology*, *11*(1), 169-190. https://doi.org/10.28945/1987

Schrum, L. & Hong, S. (2002). Dimensions and strategies for online success: Voices from experienced educators. *Journal of Asynchronous Learning Network, 6*(1), 57-67. http://dx.doi.org/10.24059/olj.v6i1.1872

Schunk, D. H. (1991). Self-efficacy and academic motivation. *Educational Psychologist, 26,* 207-231. https://doi.org/10.1207/s15326985ep2603&4_2

Schunk, D. H., & Ertmer, P. A. (2000). Self-regulation and academic learning: Self-efficacy enhancing interventions. In M. Boekaerts, P. R. Pintrich, & M. Zeidner (Eds.), *Handbook of self-regulation* (pp. 631-649). Academic Press.

Schunk, D. H., & Pajares, F. (2009). Self-efficacy theory. In K. R. Wentzel & A. Wigfield (Eds.), *Handbook of motivation at school* (pp. 35-53). Routledge.

Shaer, B., Khabou, M. A., & Fuchs, A. (2009). Effect of student location on assessment of instruction and grade assignment. *Distance Learning, 6*(4), 21-29.

Silver, B. B., Smith, E., & Greene, B. A. (2001). A study strategies self-efficacy instrument for use with community college students. *Educational and Psychological Measurement, 61*(5), 849-865. https://doi.org/10.1177/00131640121971563

Tallent-Runnels, M. K., Thomas, J. A., Lan, W. Y., Cooper, S., Ahern, T. C., Shaw, S. M., & Liu, X. (2006). Teaching courses online: A review of the research. *Review of Educational Research, 76*(1), 93-135. https://doi.org/10.3102/00346543076001093

Usher, E. L., & Pajares, F. (2008). Sources of self-efficacy in school: Critical review of the literature and future directions. *Review of Educational Research, 78,* 751-796. https://doi.org/10.3102/0034654308321456

Wang, C. D. C., & Castañeda-Sound, C. (2008). The role of generational status, self-esteem, academic self-efficacy, and perceived social support in college students' psychological well-being. *Journal of College Counseling, 11*(2), 101-118. 10.1002/j.2161-1882.2008.tb00028.x

Wolters, C. A., & Pintrich, P. R. (1998). Contextual differences in student motivation and self-regulated learning in mathematics, English, and social studies classrooms. *Instructional Science, 26,* 27-47. https://doi.org/10.1023/A:1003035929216

Zhang, D., & Zhou, L. (2003). Enhancing e-learning with interactive multimedia. *Information Resources Management Journal, 16*(4), 1-14.

Zimmerman, B. J. (2000). Self-efficacy: An essential motive to learn. *Contemporary Educational Psychology, 25,* 82-91. https://doi.org/10.4018/irmj.2003100101

Zimmerman, B. J. (2002). Becoming a self-regulated learner: An overview. *Theory into Practice, 41*(2), 64-70. https://doi.org/10.1207/s15430421tip4102_2

Zimmerman, B. J., Bandura, A., & Martinez-Pons, M. (1992). Self-motivation for academic attainment: The role of self-efficacy beliefs and personal goal setting. *American Educational Research Journal, 29*(3), 663-676. https://doi.org/10.2307/1163261

Zhao, Y. (2003). Recent developments in technology and language learning: A literature review and meta-analysis. *CALICO Journal, 21*(1), 7-27. https://www.jstor.org/stable/24149478