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# Perceptions of Saudi Students About E-Learning in America: A Case of Higher Learning Education

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**Abstract**
With the development of new information technologies and the internet, e-learning has now become the auspicious solution for universities that are witnessing intense change. Bearing in mind students' views toward electronic learning (e-learning) tools and technologies, their knowledge is vital for the successful advancement of academic programs, given that the attitude of end users toward the application of information technology is one of the utmost effective factors. This research sought to identify Saudi Arabia students' perceptions concerning e-learning in America. The purpose was to describe the perceptions and experiences of undergraduate students regarding e-learning courses based on interviews. Data analysis produced three primary findings across three research questions. The first finding illustrates the positive and negative students' perceptions of e-learning. Secondly, it was established that there are several obstacles to e-learning, including lack of motivation, technical problems, and administrative issues. Furthermore, these students perceived e-learning to be improved through enhanced communication, virtual reality, compatible teaching methods, technical support, and collaboration between students and educators.
**Keywords:** online learning, e-learning, students' perceptions, e-learning in America.
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## 1. Introduction

Technology development relates to and influences innovation in education institutions. Innovations in educational technology are often integrated into education to change education delivery approaches (Chen, 2016). Educators who follow technological developments have engaged in research which has helped them apply new techniques to reduce the geographic restrictions evident in traditional education. Consequently, distance education commenced. The advancement of distance education in recent years has changed the strategy for educational content delivery with an emphasis on the application of computer technology in learning environments.

Journell (2010) asserted that e-learning was adopted into higher education as internet technology became popular for public use. According to Chen (2016), electronic media and computers have played a significant role in e-learning development. Computer-based electronic technologies support e-learning, which has been quickly developed in the 21st century, bringing substantial impacts on education. According to Popovici and Mironov (2015), e-learning has become a favorable solution for the education world, which is currently witnessing intense changes related to the application of IT as one of the most efficient and effective factors. Institutions are being required to examine time efficiency and cost-effective methods, such as the use of webinars and computer labs.

The introduction of e-learning opportunities such as online courses has revolutionized the learning experience for students in rendering opportunities for learning and learning flexibility. Evidence suggests that through the use of e-learning, courses and online tutorials, learning has become amazingly accessible at the students' convenience. Students can now do most tasks online, including applying for college, choosing their preferred courses, reading text books, conducting research, and completing and submitting assignments (Popovici & Mironov, 2015). Furthermore, students can view their grades, contact their colleagues and instructors through email, and manage their accounts due to the advantages that e-learning brings (Alqahtani, 2019; Journell, 2010).

## 2. Problem Statement

It is unclear whether the positive student perceptions of e-learning in one field of education repeatedly apply to others (Journell, 2010). However, what appears clear is that secondary and college education looks primed to be at the heart of e-learning in the United States. School principals and district administrators now view online instruction as a low-cost education method suitable for numerous students. Consequently, the demand for e-learning applications in higher education is predicted to increase (Abrami et al., 2011; Little-Wiles & Naimi, 2011).

Despite the increased application of e-learning in higher education, scholars have done little to evaluate the perceptions of e-learning and online instruction among college students from other countries. A majority of research on e-learning research in higher education focuses more on the question of whether students have the

 

intrinsic motivation to thrive in independent learning environments, mostly in light of the frighteningly high e-learning dropout rates (Alqahtani, 2019; Journell, 2010). Other research has paid attention to the relation between students' interaction levels in e-learning courses and academic performance (Journell, 2010) and students' ability to engage in academic debates using asynchronous communication (e.g., online forums and email; Stotz & Lee, 2018). Howeveer, few studies have attempted to determine foreign students' perceptions of e-learning.

## 3. Significance of the Study

Based on the e-learning literature, it appears that scholars are only starting to comprehend the nature of e-learning in colleges in relation to foreign international students. It appears that a possible place to start this process requires developing a better understanding of how international students perceive online learning (Abrami et al., 2011). This study sought to address this subject using a qualitative case study of one college e-learning course. The results are specific to the individual case. Nonetheless, the perceptions expressed by the students in this study can act as an opening point to assess the current state of online instruction in the United States, offering implications and inferences for future practice and research in this area.

This study offers a rich, detailed, and complex picture of students in the online learning environment. Data and content analysis are organized around learning approaches that help develop learner-centered tools to promote the use of deep learning techniques by undergraduate international students with regards to online learning experiences. This study's findings yield recommendations for changes in e-learning and online course design that encourage student learning aligned with student, institutional, and faculty perceptions of online education. Furthermore, faculty may improve their online instruction via clearer insight regarding the impacts of course management tools.

## 4. Literature Review

The advancement of e-learning is now at an unimaginable level. In higher education, e-learning prevalence has allowed scholars to make great strides to understand the complexities of online communities, computer-mediated content distribution, and electronic communication, all having led to a more positive view of e-learning education (Journell, 2010). Most studies have sought to ascertain the current situations and future expectation regarding e-learning from the perceptions of college and university students. Overall, findings demonstrated that students use e-learning widely for socializing, communication, and internet searching (Chen, 2016; Popovici & Mironov, 2015).

There are various studies on significant implementation of e-learning programs (Popovici & Mironov, 2015). Evidence shows that, across the world, many universities are implementing e-learning as a teaching technique. It is extensively accepted by learners. Stotz and Lee (2018) stated that there are several reasons for overall increased acceptability of e-learning; ease of use, better control of the learning environment, convenience, and flexibility. Little-Wiles and Naimi (2011) noted that user-desired content, customizable learning, and relevant to instinctive, user-friendly design are important aspects to motivate learners to utilize e-learning programs.

Scholars have suggested that perceived usefulness and perceived ease of use lead to the change in attitudes toward e-learning (Popovici & Mironov, 2015). Using modern technology in the educational context has actually changed learning. From research, the most agreed upon guidelines are communication evolution, collaborative learning, expanding audience, multitasking, random access to information, rapid access to information, and image versus text information combination (Alashwal, 2020). In the research conducted by Popovici and Mironov (2015), students were certain about the individualized aspect of e-learning, its collaborative character as well as the high-level of independence offered by e-learning.

In recent years, studies have been published investigating student expectations and perceptions regarding e-learning (Popovici & Mironov, 2015). Alashwal's (2020) study shows an increase in demand and growing acceptance of online learning. According to Alashwal, students involved in e-learning programs are generally positive about their experiences. In online learning, Abrami et al. (2011) emphasized the growing importance of interaction. Accordingly, interaction with peers, instructors, and learning content fosters active learning communities.

Additionally, studies indicate that for university education, students' perceptions of e-learning are influenced by various variables. Chen (2016) identified variables like age, previous experience of using computers, gender, individual learning styles, and technology acceptance as major predictive aspects when discussing students' acceptance of technology. For online courses, social interaction results in effective course outcomes. Real-time chatting, pop-up quizzes, bullet screen comments, asynchronous discussions, and attendance taking are common mechanisms educators use to interact with students, emphasizing the need for collaborative affordances of e-learning tools (Abrami et al., 2011).

In general, Armstrong (2011) confirmed that a majority of students in universities have ready access to

 

different web-enabled personal computers and web features, and own digital devices for personal use, such as mobile phones. Additionally, they use various web features and digital features in their daily lives for communication and forming social networks including blogging and Facebook, to mention a few (Little-Wiles & Naimi, 2011). Users' perceptions of technology relate to technology acceptance, alongside other factors, namely social influence, perceived usefulness, and the presence of facilitating conditions mentioning training and support (Venkatesh et al., 2003).

The use of e-learning by international students is at low levels. Most students use e-learning to check course announcements and access learning material. Students rarely use features supporting functions such as taking tests and engaging in course chatrooms and course forums (Little-Wiles & Naimi, 2011). When working, interacting, and dealing with students, Mironov and Borzea (2013) found that being digital by nature does not imply that one is a natural and willing digital learner. As such, it is an important question to explore students' experience, expertise, expectations, and perceptions regarding e-learning. Relevant literature which might help find solutions, and answers may be found in users' perceptions about online learning and innovation.

## 5. Methodology

A total of 15 college students from a Midwest mid-size college in the United States of America were randomly selected to participate in the interviews. They were interviewed about their overall perceptions of e-learning and their ability to successfully learn online content.

The interviews took place in person and lasted approximately 45 min. The questions centered on students' reasons for taking online courses, their feelings toward some aspects of online instruction, and their overall perceptions of e-learning. All interviews were audio-recorded and then transcribed for accuracy.

Data analysis was conducted based on the 15 completed interview responses. The data were analyzed by systematically reading the interview transcripts and coding as advised by Creswell (2017), considering all instances where students seemed to give personal opinions associated with e-learning or specific aspects of learning in online courses. I then looked for patterns and themes throughout the case to make naturalistic generalizations.

## 6. Results

Students' perceptions regarding the use of technologies related more precisely to their perceived experience and expertise in e-learning programs. They gave several responses as described in the next sections.

### 6.1 Students' Attitudes Toward E-Learning in America

The respondents mentioned both positive and negative aspects of e-learning in America for Saudi students.

### 6.2 Positive Aspects

E-learning gives students the opportunity to watch and listen to lecture notes over and over. Students can pause to take notes anytime they want. One student noted, "I find e-learning effective and useful to improve my course understanding. Learning new technology platforms is useful for communicating with instructors and classmates." Another student also noted, "E-learning in America is fun because there are numerous activities for one to engage in afterwards. Most professors have taught students in online classes before, hence with their experience, adapting is easy."

E-learning is flexible, as noted by students, and therefore, facilitates self-paced learning. Accordingly, there is freedom in choosing the time to study as it does not require strict physical classroom attendance. E-learning has flexible conditions and thus, students can combine studies with work as well as personal engagements. One student commented,

> For me, I had an experience using a Webex Meet app during my undergraduate studies. The experience was good because I was studying at Edgewood college in Madison while I was living in Oak Park. I could access the learning content anytime, anywhere.

Another positive aspect of e-learning is that it gives students the flexibility to focus on studies and be more productive. Students can also learn in a familiar environment which can be less stressful, allowing the students to focus better and giving them confidence to interact in class. Overall, e-learning in America is supportive for students' success and encourages them to perform better.

The information in every e-learning class is valuable. The courses are rich in content, hence inclusive and comprehensive. E-learning has positive outcomes such as students becoming familiar with the use of technology. Students get introduced to many new online educational platforms that can eventually be used in their future careers. Additionally, students can accomplish more tasks in a faster manner, including class assignments.

Psychological comfort, in terms of the commute to and from school and facing traffic, is another positive result of e-learning. Students do not have to suffer anxiety from lack of sufficient sleep (e.g., waking up early to go to college) and inclement weather conditions (e.g., snowstorms affecting driving). With online learning,

 

learners can access the content anytime and anywhere. They do not need to move out from their job places to attend classes. Reduced costs of learning, classrooms, and learning material are advantages linked to online learning. E-learning is cost effective; learners save a significant amount of money required for travel and accommodations.

Online learning accommodates every student's needs. It offers students access to updated content. Students can review class materials anytime and understand the lessons taught online, and perform practical labs and assignments. A student can listen to recorded lectures several times to ensure clear understanding. Additionally, online students can access course information and finish their assignments any time. Part time students can attend classes immediately after work, without the need to physically meet the instructor.

Quick delivery of lessons is a positive aspect most students are happy with as there is easier access to information and other learning materials. One student noted, "E-learning saves us time and means we can learn on the go. So, it eliminates the boundaries of the classroom. It enables us to easily learn about the world and gain better skills."

Students feel more comfortable studying on their own, without being closely monitored. They enjoy having time and space of their own. Through electronic tools and technologies, students quickly and easily communicate with educators and submit assignments, a practice that guarantees them independence in terms of location and time. In face-to-face learning, each instructor has their own method of teaching. Each varies in style and approach, and is susceptible to mistakes.

### 6.3 Negative Aspects

E-learning is not suitable for some courses or learning. Some courses lack suitable e-learning standards to demonstrate successful understanding among students. Training programs necessitate measures to automatically evaluate and grade students. Tracking learner progress may be challenging. One student lamented the following: "Most of the e-learning courses that I have undertaken are based on discussions added to written assignments. The learning load is thus heavy."

Students might find e-learning challenging, particularly time management and getting their work or assignments done in time. Poor time management is a challenge for students studying online. Lack of structure for students to schedule class attendance exacerbates the situation. Some students succeed due to interactions with professors and other students. As such, they need adequate class time to feel prepared to complete assignments.

E-learning can lack seriousness and discipline compared to studying taking place in physical classrooms. Instructors who fail to inspire interactivity produce passive learning environments, which results in dwindled engagement and motivation. Some students consider online learning as their opportunity to catch up on activities such as sleep and video games.

Lack of social interaction makes students shy away from e-learning. It takes a lot of time for learners to get used to online learning. It is more difficult to get extra help outside class sessions. One student said, "I used to go to the lecture hall where I could get extra assistance for issues I did not understand. Now, I have to schedule meetings with the professor through email."

Cheating is difficult to avoid in e-learning. It is difficult to understand some courses with online curriculum. One of the interviewees shared, "From my point of view, face-to-face education delivers information to students faster, but e-learning is difficult when the professor delivers the content without seeing the students."

Some learners may not have good enough internet connection to study or space in which to learn without getting distracted. Intermittent internet connections may interfere with lesson delivery. When network connectivity is poor, the teacher's instructions may be unclear. Other students may not understand the points put forth by the lecturer.

### 6.4 References Obstacles Encountered in Relation to E-Learning

Saudi students noted that they have encountered severable obstacles as foreign international students. The biggest obstacle is taking an elective course (i.e., outside the major area of study one is undertaking) for various reasons. For instance, I needed previous knowledge which related to the course undertaken by students in the same department. I needed assistance from students who had studied previous courses. Online courses restrict cooperation between classmates. Some elective courses require personal laptops. If you study business, for instance, and your major is computer science, you will have to use several software programs, most of which are proprietary. You may face many problems installing such software, particularly if you do not have a personal laptop.

Students undertaking e-learning face numerous technical issues. The internet is a necessary resource for students who engage in online learning. However, it may cause numerous problems. Lack of high bandwidth or strong internet connection makes online learning nearly impossible. It may also become stressful for students to keep up with the technical requirements of certain courses. One student argued, "As an online student, you can

 

access the class whenever you have a connected device such as a smart phone. However, strong and fast internet connectivity is required."

Adaptability is one of the obstacles most students face when engaging in e-learning activities. This student explained,

As an international student who had previously studied in a traditional exam-based educational system in Saudi Arabia, I found adjusting to e-learning not easy, especially in the beginning. E-learning needs more computer skills, such as typing very fast and listening actively to lectures. Someone whose English is secondary may find it difficult to keep up with the speed of the professor, speaking in a different dialect.

E-learning is a form of self-directed learning. One interviewee said, "In my opinion, e-learning leads to isolation, and thus, one is less motivated to engage in the learning process. Not every student can concentrate on the lecture without getting distracted."

Administrative problems are common in e-learning. Frustration usually comes about when the students do not know when or how to contact their tutors, in addition to poor communication concerning coursework. Some e-learning platforms suffer from quality issues, becoming a heavy burden to most students. Other students, like this one, cite poor time management: "There are only 24 hours in a day. When you add school to your already busy schedule, you must use your time wisely." Each course requires the student to accomplish multiple tasks, and each professor expects high performance levels from all students.

Limited computer knowledge is a major barrier to e-learning. Lack of computer skills leads to technological barriers that cause increased anxiety and demotivation for online learning. Students need computer literacy skills to use tools such as personal computers, web applications, tablets, smartphones, and laptops. Students with limited computer knowledge find it challenging to use applications and tools such as Forums, Blogs, RSS, Flickr, and Slide Share, which are pedagogically efficient for e-learning and online distance learning.

Technological proficiency is essential for students to succeed in using e-learning methodology. To attend a class session online, students need a certain degree of technological proficiency, including the ability to successfully log in, participate in class sessions, submit assignments, and communicate with instructors as well as other students.

Some students may see online learning as optional. Students' and teachers' lack of experience and adequate knowledge of pedagogical and technological capabilities of Virtual Learning Environments such as Blackboard and Moodle may make most students not appreciate the power of e-learning. One student stated, "I try my best to maintain my work ethic, but the structure of e-learning is not inclusive for the types of people who struggle with other ways of teaching, and it is negatively impacting everyone, including the teachers."

E-learning necessitates self-motivation. Online learning requires motivation to complete tasks, stay engaged, and make progress. Lack of in-person interaction to keep students engaged in learning activities is a major obstacle in e-learning. One interviewee explained,

> E-learning is not something I enjoy. If there was moderation, it would not be an issue. Unfortunately, the whole school and classes in America revolve around e-learning. It is difficult to keep track of classwork, motivation for me and my peers to learn is low, and nothing taught in the class actually stays with students after lessons are over.

Recorded lectures are difficult to understand. Online courses require commitment, and getting feedback on students' progress on a daily basis is difficult. Interacting with tutors and professors at a personal level is difficult. Disengagement and isolation are evident, as students lack community interaction with their peers. One student stated, "With recorded lectures, I cannot interact with or speak to the professor directly, especially if I have questions that I need to seek clarification."

As a foreign student, I have to work twice as hard while studying in America because English is my secondary language. Therefore, e-learning is convenient when there is a person (e.g., an interpreter) explaining concepts to you in person. I also have to adapt to the school curriculum and resources, such as the Blackboard system. These challenges can be overcome with detailed instructions from advisors or professors.

6.5 What Improvements Can be Made to Enhance E-Leaning in America From the Viewpoint of Saudi Students?

Maintaining motivation when there is no personal interaction with tutors is often difficult. There is a need to find more creative ways to ensure students remain engaged and motivated throughout their lessons. Instructors should incorporate the principles of autonomy, relatedness, and competency into their e-learning programs to promote self-motivating behavior. Personal interactions with instructors and the university technical support staff can help enhance e-learning in America.

Absence of community involvement in e-learning can be addressed by building active online learning communities. Some students associate e-learning with loneliness and isolation, and such issues can be addressed through active online forums and learning communities. There is a need for instructors to create online forums and social media groups where learners collaborate, ask questions, interact with peers, communicate, assign tasks, share learning resources, and learn from each other. One student stated, "In general, being an international

 

student in any university is challenging. Professors and faculty assistants should be more supportive of international students, given that most of them are still transitioning to the e-learning environment."

Students need timely response and feedback from academic resources, including professors and tutors. It would be great if professors would increase student engagement in virtual classes to keep students focused during lectures. Through discussion threads and chat rooms, students can interact with instructors, seek clarification, and get their questions answered about unclear instruction.

With more support from professors and advisors, e-learning can facilitate the educational and cultural shift. Having frequent class time and study sessions will be beneficial for students, especially when there are language barriers. One interviewee said, "I also believe that including discussion times or group discussion sessions when students meet up and talk among themselves will help Saudi students feel included in the American community."

Limited technical experience prevents most students from engaging in e-learning. Thus, tutors and professors can offer them personalized support and provide online tutorials for guidance to alleviate concerns about common technical issues. Creating online demonstrations and illustrating the process of using e-learning platforms improves student learning experience.

Online courses provided should appeal to all learning styles. To create effective learning experiences, it is vital to establish balance. Online learners become disengaged due to boredom if the learning resources and material are easy. On the contrary, students become frustrated, and eventually give up using difficult e-learning materials or resources. Instructors, thus, need to research their target audiences and conduct preassessments to establish ideal challenge levels. They need to give students a sense of accomplishment in learning, without forcing them to struggle through e-learning courses.

Students and instructors should establish an open line of communication. Being clear about the reasons why students should take e-learning courses and highlighting their positive impacts is essential. Instructors can also use questionnaires and polls to gather feedback from students and identify the main areas that should be addressed to enhance e-learning. Additionally, instructors should specify which means of communication are preferred, and during which working hours.

The platform for delivering online content should be easy to navigate and fully functional. Online learners should easily navigate through the e-learning content, without needing constant help throughout the whole learning experience. A majority of the students should be comfortable using e-learning systems and resources. Additionally, they need adequate support. Learning institutions need to provide students with online resource links and contact details useful for improving their understanding. One student emphasized that course documents should be available at any time to every student enrolled in the course.

Collaboration between instructors and learners is needed to facilitate a positive and successful learning process. It is vital that all instructors set and communicate clear goals to their learners in a manner such that learners can understand and engage in actions to realize the set goals. Online students need the opportunity to assess their progress and celebrate small accomplishments. One student responded,

> I think that during the last 15 minutes before each class ends, there should be a discussion of the lesson and lecture between the professor and the students. The students are divided into groups and important questions are discussed. The session is similar to a competition, where students are given extra points for active participation.

Improved communication between students and professors is necessary to improve e-learning. Continuous communication makes e-learning engaging and inspirational. Professors who know and understand their students employ measures to prevent boredom commonly associated with e-learning. One student noted, "Teachers should try their best to encourage students to talk with each other without using the chat feature on most platforms used for e-learning." Thus, it is vital that instructors conduct interviews, surveys, preassessments, and group discussions to identify students' expectations, goals, and needs. The feedback is useful in creating relatable and relevant e-learning experiences focused on solving real-world problems.

Implementing virtual reality is the best method to address e-learning obstacles. Web conferencing tools enable instructors to host meetings remotely and broadcast them simultaneously in real time to numerous learners. In modern e-learning platforms, learners have various platforms to learn with virtual instructors in simulated classroom environments. Common options are Skype, Zoom, and Google Meets. Web conferencing tools support the sharing of screens for simulations and giving live lectures. Additionally, they are necessary when simulating classrooms for blended learning programs.

Competent and skilled instructors are crucial in successful e-learning content delivery. Students lamented that some instructors do not outline the rules and regulations that guide their e-learning lessons and sessions. Instructors, therefore, should enforce stricter rules when it comes to assignments and participating in online learning platforms such as Zoom. One student, for instance, stated, "As Saudi Arabia students, we are attracted to beauty. I would like to see well-designed web pages."

Teaching methods must be compatible with e-learning. Developing personalized learning environments will help online students choose their e-learning activities. Courses empowered with multimedia such as audio

 

narrations, texts, images, and short videos help enhance e-learning. One of the best ways to get online students actively engaged and involved in learning activities is through gamification. Certificates, badges, leaderboards, and points often motivate learners to realize their desired learning outcomes.

Improving the curricula to be more appropriate with electronic teaching is essential for successful e-learning in America. Instructors need to assess, teach, as well as grade students, while ensuring they are engaged, motivated, and on track. Live support from instructors is necessary for learners to feel connected to their learning. Students who require further clarification or guidance, for instance, should be able to make phone calls, engage with their peers, or email instructors.

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