



# IJRASET

International Journal For Research in  
Applied Science and Engineering Technology



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# INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

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**Volume:** 10    **Issue:** I    **Month of publication:** January 2022

**DOI:** <https://doi.org/10.22214/ijraset.2022.40104>

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# Digital Transformation in Nursing Education: During Covid Pandemic Challenges

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**Abstract:** *When the COVID-19 pandemic started to spread around the world, the situation became difficult for many educational institutions. The objective of this study was to discover the learning experiences and the expectations about the changes in education, in light of the abrupt change from face-to-face to e-learning education, of nursing students enrolled in Bachelor's degree of governmental universities, This study aimed to examine nursing students attitude toward e-learning. This study utilized a descriptive cross-sectional design with 50 nursing students as study participants. Data were collected via an online survey tool. The imposition of e-learning sets limitations for older students, Students expressed concern about what an interruption in their nursing education would mean for their future careers as Registered Nurses. Many students in clinical placements were in their final focus clinical practicum, and thus close to successfully completing their program. Some learners were only one or two courses away from completion of their Bachelor of Nursing degree. In addition to canceling their current clinical placement, they had concerns about progressing in the rest of their program.*

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## I. INTRODUCTION

The unparalleled emergence of COVID-19 has thrown into disarray education and has led to the rise of e-Learning knowledge. The shift from conventional delivery of education to online mastering brings about various perceptions that necessitate attention and exploration. Complete instructional machines are taking all essential steps to ensure that we're organized well to stand the mission and threat of COVID-19. This observation aimed to look at nursing college students' attitudes towards e-learning.

This fitness crisis influences no longer the simplest frontline staff and scientific leaders but all systems and groups. COVID-19 has also already disrupted universities and academic establishments. Inside the health discipline, faculties of nursing are bracing for precise demanding situations associated with our function in helping expand the next technology of care providers. This article specializes in the unique desires and concerns of nursing educators and nursing students in the face of the COVID-19 pandemic.

According to Saudi national statistics, approximately 1,353,619 students are enrolled in 28 governmental and 34 private higher education institutes. Moreover, there are approximately 5000 schools in the Kingdom that provide secondary level education; these include both public and private sector institutions.

Electronic learning (e-learning) is not new in the Kingdom. Its first decade (1990-2000) in Saudi Arabia's education system was supported well by the evolution of computer technology and the World Wide Web. By 2002, Saudi Arabia had established a national school e-learning platform with tailored electronic lessons. The following years witnessed expansion and enhancement of e-learning in collaboration with international partners. In 2017, as part of Vision 2030, the Ministry of Education (MOE) established the National Centre for e-Learning. This center serves to supervise and support eLearning in Saudi Arabia. The current COVID-19 pandemic poses immense challenges to maintaining the continuity of educational services across the Kingdom. This challenge was most evident in the health education sector due to the absence of a standard and unified method of eLearning and because educational methods depend on patient interactions.

It is already known that major universities in the Kingdom such as King Saud University, Taibah University, King Khalid University, Qassim University, Islamic University of Madinah, University of Bisha, Al-Baha University, and King Abdul-Aziz University are the most active e-learning university partners in the Kingdom. However, higher education institutions were challenged by the COVID-19 situation to continue tutoring and assessment of technical skills. Hence, universities offered different methods of e-learning support depending on the course requirements and interim assessment needs.

Later, the Minister of Education congratulated higher educational institutes on their successful shift to distance learning since the COVID-19 outbreak. The universities reported that collectively, 1.2 million users were conducting 107,000 hours of web-based learning in more than 7600 virtual classes. The MOE also directed higher education students and faculty to its website “Shams,” an open education resource.

## II. METHODOLOGY

This study aimed to examine nursing students’ attitude toward e-learning and the importance of artificial intelligence. This study utilized a descriptive cross-sectional design with 50 nursing students as study participants. Data were collected via an online survey tool.

On March 12<sup>th</sup> our academic nursing program made the difficult decision to remove students from clinical practicums. In the days preceding this decision, numerous questions and concerns were shared in online meetings. Our University offers a Bachelor of Nursing program. Students in this program must complete in-person clinical placements to fulfill the Bachelor of Nursing degree requirements. The educational system did not experience the same challenges that other academic institutions faced with the quick pivot to distance learning in a digital environment. However, the serious concerns related to learner safety and artificial intelligence were at the forefront of this decision.

We all had to consider the value of education against the risk and strain to the learner personally and professionally. Most of our students are nurses in their respective communities across to pursuing their educational commitments, including theory and clinical courses. Students often travel hundreds of kilometers from their home province to complete clinical courses. When rates of COVID-19 increased, there were concerns from both faculty and students on the possible restrictions or limits to travel within KSA. Concerns regarding traveling focused on the possibility of transmission.

Students expressed concern about what an interruption in their nursing education would mean for their future careers as Registered Nurses. Many students in clinical placements were in their final focus clinical practicum, and thus close to successfully completing their program. Some learners were only one or two courses away from completion of their Bachelor of Nursing degree. In addition to canceling their current clinical placement, they had concerns about progressing in the rest of their program. We did not have all the answers or solutions at the time the decision was made, and are still working through the immediate safety concerns and implications for future clinical placements and exposure of artificial intelligence in clinical learning. Our approach with students has been to reassure them that the worries regarding their academic path are valid and taken seriously.

Amid panic and crisis, it is challenging to continue planning for an uncertain future. However, universities and educators have a societal obligation to think long-term. How will we recover from the pandemic? Will we be able to sustain and maintain a program if the crisis extends long term? At this moment, we have more questions than answers, but sharing these concerns allows for collective action and collaboration. We hope that by disclosing these concerns, we can help frame the academic discussions that all nursing programs will have to face. With all the fear and anxiety, there are lessons in hope. Students’ main concerns have been the health of patients and communities. In the week following our removal of students from clinical, we have continued student learning online. In discussion forums, students have shared insightful, articulate, and honest thoughts on the impact of this pandemic worldwide. Online clinical education was implemented through our blackboard system - virtual learning. Their responses have been one of the factors that guided us through this crisis. We have also witnessed globally the recognition of the dedication, roles, and significant contributions that nurses play in the health care system. For the students to enter academic programs in the future, they will begin their education aware of risks and challenges that no other cohort could have ever imagined.

## III. RESULTS

We discuss the concerns that have been shared by students. We question how we will continue to educate nurses in a society facing social distancing, isolation, and quarantine measures, while also needing nurses at the frontline. Results indicated that the majority of nursing students had intermediate computer competency (94.8%) and a somewhat stable internet connection (75.1%).

They generally had negative (10.0%) and ambivalent attitudes (30.6%) toward e-learning positive attitude (59.4%). As an academician feeling of virtual learning results to be less student-teacher interaction (75.66%). Positive attitudes seem to dominate nursing students’ attitudes toward e-learning in times of pandemics. Although it remains a challenge, nursing schools must carefully plan and take measures to improve the experiences of students in the virtual learning environment to ensure that effective learning is uncompromised in the midst of pandemics.

## IV. CONCLUSION

The pandemic teaches us to face the challenge in the midst of any pandemic like this, it is a real-time lesson in equity, leadership, social justice, ethics, and patient care. This pandemic will forever shift the educational landscape.

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