CONCEPT ANALYSIS

Online learning in Nursing: Concept Analysis

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Abstract

Online learning in nursing is a controversial idea that is viewed as a hindrance to the holistic learning of an individual, however, it was the only solution to prioritize the safety of students during the COVID-19 pandemic. This concepts aims to give a clear approach to how online learning will occur successfully in nursing education. The method used in intellectualizing the concept was Walker and Avant's approach. The attributes of online learning involve: 1.) platform with the use of devices to create a classroom community; 2.) virtual schooling at home; 3.) entertainment and leisure activity; and 4.) enhanced with synchronous online classes and asynchronous video instruction. Apart from these attributes, the schema of nursing students needs to be addressed and enhanced through the delivery of learning by giving importance to visual, audio, read and/or writing, and kinesthetic learning styles fueled with the right attitude and technological competency.

Keywords: *Online Learning, nursing education, nursing*

Introduction

COVID-19 came like a thief. It steals not only the lives of humans but also sources of revenue. One that is alarming worldwide is the future of the next generation. Schools were forced to shut their doors because of the coronavirus pandemic. The world is facing a generational catastrophe (Green et al., 2022). This led to a sudden shift in methods of teaching. Learning is a continuous process and should not be disrupted; therefore, delivery of learning through online discussion was established. This included nursing education as colleges saw the transition from in-person learning to online discussion. It is a challenge to the field as nursing involves face-to-face discussions with live demonstration. Given the current situation, nursing students should learn to adapt to the new method and acquire knowledge skills, attitudes, and values through different online platforms. At the same time, nursing educators should find the best method to instill the necessary attributes of future health workers in their students. From this, it can guarantee that the students not only meet the academic requirements, but also recognize the current conditions faced by the health services and the needs of simultaneously satisfying the demands of students, parents, brothers, partners, and multiple roles every individual play in their day-to-day lives (Ramos-Morcillo et al., 2020).

Online discussions occur when an instructor uses software to encourage conversations among students and/or instructors via the internet around a specific topic (DoIT Academic Technology, 2021). Students feel that online learning is a classroom community (Burt, 2021) but for parents, it is virtual schooling and online education at home (Klein, 2020). Nero (2021) added that using a platform along with devices comprises a classroom community. Grandparents are generous to help their grandchildren with their education. The number of grandparents raising grandchildren has increased dramatically in the last ten years (Pemberton et al., 2006). Some older adults view online learning as entertainment or leisure activities (Githens, 2007). In nursing education, live classroom instruction, simulation labs, and clinical experiences cannot be replaced by online sessions, but they can be enhanced with synchronous online classes or asynchronous video instructions (Parsh, & Gardner 2016).

In nursing, the majority of students prefers campus-based education (Langegard et al., 2021). The effectiveness of e-learning interventions for nurses in a continuing education context remains unknown regarding how the learning can be transferred to change practice and affect patient outcomes

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(Roeuleau et al., 2019). In addition to their paper that cited Heitzmann (1983) and McGonigle and Mastrian (2009), safe and creative opportunities are a great way to enhance learning. A simulation is a replica of a real-world situation that allows the student to be a working member of a system, set goals, and analyze information. Computer-based simulations of healthcare allow students to be immersed in the experience, while computerized systems allows them to be safely engaged in realistic situations.

Online learning has matured from a basic discussion board in 1997 to virtual classrooms and simulations, and it has grown in enrollment and acceptance. It is especially appealing to nursing students who otherwise might be unable to pursue their education because of family and work demands, or because they live too far from a school to attend classes (Glasgow et al., 2017). Nursing quality education proves fundamental to the profession's long-term outcomes and in nursing. The move to online course delivery took root in the mid-1990s as evidence of its effectiveness emerged and the evidence pointed toward this choice as a viable solution to address the demand for nursing education (Authement & Dormire, 2020). On the other hand, Sinaga et. al (2018) mentions that online learning can be employed to support nursing and healthcare education. However, there is limited appreciation of students' experience and the use of e-learning.

Synchronous learning refers to all types of learning in which the learners and instructors are in the same place, at the same time, for learning to take place; while, asynchronous learning is a student-centered teaching method widely used in online learning (Finol, 2020). Synchronous and asynchronous learning are both online learning. However, one must have the other to achieve the quality of information delivery of learning.

Online learning defining attributes involve:

1. Platform with the use of devices to create a classroom community
2. Virtual schooling at home
3. Entertainment and leisure activity
4. Enhanced with synchronous online classes and asynchronous video instruction

Classroom community

The classroom community is where the students virtually meet and share a common objective in learning by using technology such as mobile phones and laptop, which are connected to the internet.

Virtual schooling at home

A student is home-based to learn and meet their teacher in a computer-generated manner.

The technology that connects to the internet using home wi-fi or mobile data will act as the student's classroom. In their classroom, the instructor will give a link for their live discussions.

Entertainment or leisure activity

Online learning can elicit a virtual engagement. According to Nero (2021), online learning can be an entertainment or leisure activity if the clinical instructor will upload appealing learning materials and videos for the students.

Enhanced with synchronous or asynchronous video instruction

Synchronous learning is any type of learning that takes place in real-time, where a group of people are engaging in learning simultaneously (Lawless, 2020). In asynchronous learning, the instructor uploads a video that is viewed by the students at their most convenient time. For example, in a demonstration video, the instructor can film himself guiding the students in a step-by-step manner or he can link related videos for additional information.

The Antecedent

Walker and Avant (2005) (as cited by Brush et al., 2012) define the antecedent as the events or attributes that must arise before a concept's occurrence. Online classes are typically a mix of video recordings or live lectures supplemented with readings and assessments that students can complete on their own time (Friedman & Moody, 2020). Students should have self-discipline, self-motivation, time management, and cognizance to ask for help. Furthermore, from Minnesota Online High School and the Minnesota Department of Education (2020), two key advantages of online learning are flexibility and convenience. Furthermore, the ability of a student should include persistence, effective time management skills, effective and appropriate communication skills, basic and technical skills, reading and writing skills, motivation and independence, and a good study environment. According to Choe et al. (2019), multimedia learning can be satisfying and effective. Students have strong preferences for certain video styles despite their equal learning outcomes.

In online learning, learners with strong personality traits such as agreeableness, conscientiousness, and openness to a new experience outperformed those with strong extraversion and neuroticism (Yu, 2021).

The consequences

Walker and Avant (2005), ss cited by Brush et al. (2011), consequences are those events or incidents that can occur as a result of the occurrence of a concept and that can often stimulate new ideas or avenues for research about certain concepts.

With the growth of technology and the Internet, e-learning has secured a good position in the academic world (Baber, 2020). He also learned from Bernard, Borokhovski, Schmid, Tamim, and Abrami (2014) that in online learning, students do much better than in traditional learning, and this can be seen through the increasing rates of course completion, student satisfaction, and their motivation levels to acquire more knowledge from online learning. According to Berger et al. (2019), proponents of virtual education point to several ways in which online learning could provide higher-quality education for students as compared with traditional classroom settings. Numerous studies reported that online learning could increase student participation, improve discussion quality, and foster online interactions (Yu, 2021). In the study by Ali et al. (2020), they concluded that there was a positive impact of the online education system on the learning process for nursing students except that the students were not able to decide that the remote online education system can replace in-person learning. Moreover, the study by Chan et al. (2021) suggests that perceived learning satisfaction predicts learning engagement among nursing students in this online learning course. In contrast to the study of Ramos-Morcillo et al. (2020), online teaching has allowed substituting the teaching of theory, although face-to-face teaching is preferred. At the same time, it has shown that clinical practices are indispensable for the training of the nursing students

Model case:

A 19-year-old nursing student woke up in the morning, cooked, and had her breakfast at 6:00 AM. She has a virtual duty to attend at 7:00 AM. After her breakfast, she sent a message through a social media platform in their group chat with her friend who enrolled in the nursing course. She asked her if she entered the link given by their teacher and her classmate replied affirmatively. She opened her laptop and waited for it to boot. She saw her friend in front of the screen and while waiting for their teacher, she asked again her friend, who is online, if what would be their activities for that day. The teacher's name popped on the student's screen and they composed themselves. While the student is sitting on their couch with a coffee on her right side table, the teacher gave a startup discussion on a patient who had undergone normal spontaneous delivery (NSD) and cauterization of genital warts through the virtual classroom showing them the pathophysiology of the given situation and the disease through a presentation. After the discussion, the teacher continues to give instructions about a video that she will upload. Then, all of the class who entered the virtual duty said their goodbyes and logged out. Before she clicked the hand washing video made by her teacher, she looked for the procedure of doing handwashing. Before, she reads her searched procedure. After which, she advances to reading the procedure while watching the video of handwashing. The handwashing procedure is appealing to her because it is one of the COVID-19 protocols that she can teach to her family members as well as the added graphics made by her instructor. While watching the surgical scrubbing from a link, posted in their classroom, an electronic mail (e-mail) popped out containing information that their teacher posted additional reading materials about current trends on handwashing and surgical scrubbing.

From the attributes of online learning, the teacher delivered her topics through synchronous learning, and gave asynchronous learning by uploading a demonstration video about handwashing as well as a link for surgical scrubbing on the course site. The communication of the nursing student to her friend is reflected as using the platform with the use of devices to create a classroom community. While on a couch and having coffee on the bedside table reflects that the student is learning at home. Visually appealing graphics incorporated in lecture videos, created by the Clinical instructor, made it an entertaining learning experience for the students.

Related case:

The student woke up in the morning, ate her breakfast, went to duty wearing her student nurse uniform at the institution's delivery room, and arrived before 7:00 in the morning. When their teacher arrived and while waiting for their case, the teacher created a classroom on an online platform via her cellphone. She gave the link to her students via social media platform in a form of group chat and uploaded a video as well as the procedure of the surgical scrubbing and draping of a mayo table to prepare them if a patient arrives.

The related case does not include all attributes but they are similar to the case model (Yazdani et al., 2016). The student and the teacher were on face-to-face learning in combination with the use of technology through their cellphone that is connected to mobile data or wi-fi to upload videos. This reflects blended learning. Blended learning is an approach to learning that combines face-to-face and online learning experiences (Teach Thought, 2021).

Contrary case:

The student woke up in the morning, ate her breakfast, and went to school wearing her university uniform. She arrived in room 203, their room assignment for their maternal and child lecture. The student arrived before the time of schedule for their discussion. The teacher came in with her laptop and projector. Her slides contain the nursing interventions during normal spontaneous delivery projected to the whiteboard in a dimmed room. She entertained questions as they go on with their discussions until the end. The student and the teacher said their goodbyes. The teacher went out of the room and the students waited for their next subject teacher.

The contrary case is a clear instance of "not the concept" (Yazdani et al., 2016). The contrary case is an example of face-to-face learning, which is a common method of delivering knowledge in the Philippines. There is a use of technology, however, no connection to the internet. Learnings are coming to the teacher with discussions and clarifications. Traditional (Face-to-Face) teaching focuses on several elements, including lectures, capstones, team projects, labs, studios, and so forth (Iowa State University, 2022).

Borderline case:

A 19-year-old nursing student woke up in the morning, cooked, and had her breakfast at 6:00 AM. She is having her coffee in their living room. She needs to read her modules given by her subject teacher and brought home by her mother. The interaction with their teacher on a given social media platform is limited only to questions regarding their modules. For those who have a poor internet connection, the students need to call their teacher via her cellphone number. Her mother will send modules after the student is done reading and answering before the deadline.

The borderline case is an example that contains most of the defining attributes of the concept, but not all of them (Yazdani et al., 2016). In the given case, it portrays the use of platforms alongside devices to create a classroom community wherein a group chat is formed for them to interact but solely for classroom inquiries and clarifications. In the absence of an internet connection, learning can also come from printed modules. Learning is everywhere. It is not limited to the four walls of a classroom or the four corners of laptops and cellphones.

Empirical Referents

As cited by Garnett et al. (2018) from Walker and Avant (2011) empirical referents are "classes or categories of actual phenomena that by their existence demonstrate the occurrence of the concept itself." Besides, the empirical referents relate directly to the defining attributes, though not directly to the concept itself, and are used to measure the defining attributes and provide indirect evidence that demonstrates the occurrence of the concept in a practice setting. Online learning attributes that involve classroom community, virtual schooling at home, and entertainment and leisure activity are measurable through the subjective experience and feelings of the students. Additionally, the classroom community is quantifiable objectively by matching the list of students to those who were currently online. Other online attributes include enhanced synchronous online classes and asynchronous video instruction. Asynchronous discussion forums and virtual classrooms are measured through objective assessment. The teacher can give pre-tests and post-tests, surveys, questionnaires, or evaluations after discussing a topic in a form of quizzes via online platforms.

Research suggests that online learning has been shown to increase retention of information, and take less time, meaning the changes coronavirus has caused might be here to stay (Lalani & Li, 2020). Despite the Philippines' situation, Filipino students need to try online learning rather than stop and become part of a generational catastrophe. Contrary to the situation in the Philippines, Mirahmadizadeh et al. (2020) said that despite the imposed situation, students showed enthusiasm toward learning and schools.

Among those identified attributes for online learning, a student must adapt to the new normal to cope with the current situation of this pandemic. According to Cherry and Gans (2020), Piaget believed that children take an active role in the learning process, acting much like little scientists as they perform experiments, make observations, and learn about the world. Among the negative comments brought about by shock and abrupt alteration from face-to-face learning to online learning, a student can still achieve quality education in relation to Piaget's theory alongside visual, auditory, reading/writing, and kinesthetic learning styles or VARK learning styles. Visual learners can study through charts or graphic depictions of meaningful symbols while auditory learners can absorb knowledge through hearing information presented to them vocally ("*4 Different Learning Styles You Should Know: The VARK Model", 2020*). Reading/writing learners can acquire knowledge through written information, such as handouts of PowerPoint presentation slides presented in class, and completion of written assignments that also serve as opportunities to synthesize course content. Therefore, they are encouraged to take copious notes during lectures to help them both process information and have an easier time recalling it later. Whereas, kinesthetic learners are hands-on participatory learners who need to take a physically active role in the learning process to achieve their best educational outcomes. With the VARK learning styles, students need to identify their strengths in those styles so they can use them in acquiring knowledge through online learning effectively. In Piaget's theory, she defined schema as a basic building block of an intelligent behavior-a way of organizing knowledge and as a set of linked mental representations of the world, which we use both to understand and to respond to situations. Another study emphasized the importance of schemas in cognitive development and described how they were developed or acquired (Mcleod, 2020). How a person perceives cognitively and how he responds to circumstances, as what schema means, then a student can push through with the online learning amidst this pandemic if learning materials correspond to the pattern of the VARK model to address learning styles per student.

Nursing Implication

Online learning can be achieved by positive attitudes of the student such as self-discipline and self-motivation, time management, and cognizance to ask for help. Furthermore, as mentioned above by Minnesota Online High School and Minnesota Department of Education (2020), the ability of a student should include persistence, effective time management skills, effective and appropriate communication skills, basic and technical skills, reading and writing skills, motivation and independence and a good study environment. A positive attitude amidst this pandemic is much needed by the students. Moreover, strong personality characteristic is essential with this online learning such as thoughtfulness, diligence, and honesty in a new experience.

Furthermore, the exposure to the use of technology in the learning of nursing students will also correspond to technological competency. This is a preliminary start to saturate in the use of technology before entering the world of nursing. As cited by Locsin and Purnell (2015) from Locsin (2005) wherein there is a need for critical nurses to further realize the significance of being human in intense technological environments and to enter into the sphere of influence of the theory of Technological Competency as Caring in Nursing.

Conclusion

Online learning is possible to meet, accept, and get through as a new mode of delivery of learning. However, support from families is also vital. Loved ones must be understanding and patient during these trying times. Students and families struggle with the adjustments, wherein the former must submit all school requirements and the latter need to meet the day-to-day needs of their families. Good things are worth every endeavor. To achieve quality education through online learning the cognitive development of a student is essential coming from their schema, combining the VARK learning style with the right attitude and competency in technology.

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