

SUMMATIVE ASSIGNMENT

ExpertsMind Sample

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Introduction

This summative assignment aims to discuss the aspects of information technologies that help in improving learning skills. Learning skills refer to the skills that help an individual to think, listen, articulate, process thoughts, read, write, and so on. Every individual needs to focus on their learning skills, whether they are of any field (Collins, Azmat, & Rentschler, 2019). This assignment will discuss the aspects of information technologies in terms of the nursing field. The assignment will also discuss some of the learning theories that will enhance the idea of learning more and more. However, the assignment will also include the role of health information technologies for quality services and the safety of the patients.

Information technologies

Information technologies refer to the use of networking, storage, infrastructure, physical devices, computer, storage, and processes that will help in processing, creating, securing, storing, and exchanging all kinds of data that is electronic (Sakurai & Murayama, 2019). Information technologies are basically helpful in telecommunications and computer technologies. With the growing years, the use of technologies has also increased, and so is the use of information technology. Some of the most useful information technologies are content management software, video conferencing equipment, personal computers, and performance management software. However, the use of information technology is apparent in every field of profession in present times.

In the healthcare field, during education, training, or practice, the use of information technologies is helpful. One of the most important and commonly used information technologies is cloud computing that helps in storing all kinds of data (Abdulhakovna & Gulomovna, 2020). However, information technology also helps others in autonomous learning, which makes learners more capable of critical thinking and active learning. The internet is also one of the major examples of information technologies that helps the population of all nations in many ways. However, some other areas where information technology plays a vital role are management of different departments, online activities, social networking, education system, online money transactions, decision-making, implementing innovations, and others.

Role of information technologies in healthcare

Information technologies, as discussed earlier, play a vital role in the improvement and development of different sectors. In the present world, after the spread of coronavirus, it has been noticed that various aspects of the healthcare system have shifted their services to digitalized systems (Javaid *et al.* 2020). Information technology-supported most businesses and medical practices. However, the most important thing innovated and implemented by them with the usage of their learning skills to shift to online services was internet connectivity with 4G and 5G networks. Apart from that, information technology also helps in storing the data of each patient record for the long term without any error.

The healthcare industry has implemented information technologies for various reasons. Firstly, IT helps the medical practice to look for appropriate and accurate information that can assist in personalizing the healthcare service or need. Secondly, it also helps the various healthcare professionals to find important and significant data of the patient and also his/her medical history, earlier treatments, and diagnosis. Access to all these data will help in making a proper treatment plan that will help the patient to cure faster (Aceto, Persico, & Pescapé, 2018). Thirdly, information technology also helps in making faster decisions. The physicians, surgeons, or nurses will be able to make fast decisions at times of risks related to the patient's health. Apart from these, information technologies have also updated billing procedures, insurance verification, and appointment scheduling much easier.

Day by day, the use of information technologies needs to increase in healthcare sectors. Custom-built software shall be implemented that will help the nurses and other staff to easily access the data and personal information of the patient while treating or serving them. With the information technology, the patient does not have to enter his details numerous times whenever he/she visits the hospital. It also helps in saving the time of professionals as well as the patients. The healthcare industry also needs to maintain the confidentiality of the personal information of the patient and ensure everyone their safe and legal usage of technology (Aceto, Persico, & Pescapé, 2020). Technology has been an important element during the time of the pandemic. In the covid-era as well, the information technology role in healthcare sectors has many advantages. It will help in furnishing explicit and accurate information about the patient. It will help in the creation of customized treatment plans and care. It will also assist in fast and improved

communications among the healthcare professionals and also with their patients. It will help in maintaining the safe and clear records of individuals. The central database will assist others to easily access the patient's information. The costs and time will also be saved.

Apart from these, telemedicine is also one of the aspects that have evolved with digital practice. Telemedicine allows healthcare professionals to use telecommunications technology to find, diagnose, and treat patients (Calton, Abedini, & Fratkin, 2020). E-medicine and telehealth are other terms for the same thing. Patients can consult with doctors without having to visit them in person with this system. They make contact with the specialists from the comfort of their own homes. Exams and consultations are also part of this system. The test entails downloading any program or dialling a telemedicine number provided by a primary care physician's office for the purpose of improving health. However, it can be said that digital technology will help in the treatment of the patient at an integrated level to all the patients and specifically to the patients who are at risk and need urgent treatments.

Role of information technologies in the field of education

Information technology has shaped the education for students to gain education from wherever they want. It also helps in promoting various opportunities for the students. However, accurate and right teaching is necessary for the learners to acquire effective learning. Technology helps a lot in the field of education. Firstly, it helps the students as well as the teacher to gather the right information and analyze it (Fritsch & Wyrwich, 2019). Secondly, it helps to create new ideas and transmit the information accurately after evaluation. In the field of education, it is helpful in making the students enhance their critical literacy and critical thinking skills. It is very helpful in the collaboration of students with the teachers (Mancini, Lombardi, & Tavana, 2021). Technology helps modify the lessons as per the learning skills of the students.

Apart from it, information technology is also helpful in benefitting the students with autonomous learning. Every discipline of education encourages autonomous learning. However, autonomy refers to the decision taken by oneself for specific things. Autonomous learning refers to the learning where an individual takes all his decisions on his own related to his learning. Information technology is very helpful in autonomous learning as it provides all sorts of information related to the course (Angelov, Gu, & Principe, 2017). However, an autonomous

learner remains self-aware, skilled in seeking, motivated, flexible. Disciplined, creative, interdependent, persistent, and so on. Many of the skills of the students are also enhanced. The instructor, while acquiring this learning, is not a teacher but a facilitator. The learning environment is more flexible with the usage of information technology. The flexible learning environment is very important in learning anything in an easier way can be evidenced with one of the social learning theories.

Constructivist learning theory states that learning is an active process. When knowledge regarding anything is acquired in a contextualized process, it is more helpful (Fernando & Marikar, 2017). Knowledge can be gained in an enhanced way with constructed experiences and familiar environments. An individual can learn by seeing, feeling, thinking, and hearing. The usage of information technology is helpful in learning with all four learning styles. Technology has the power to make learning innovative teaching.

In the field of nursing education as well, information technologies play a vital role. It helps in online education, simulated learning, mobile technology, and so on. As discussed, online education or autonomous learning offers programs that are flexible in nursing education and attain a degree (Singh & Masango, 2020). Different software is used to deliver the teaching content, handle the registrations of the courses, reporting, and track the whole course. The nursing programs are easily accessible with different systems that offer various benefits and features. Simulated learning is also helpful in delivering the nursing students the vital symptoms and signs. It also provides a secure environment for them to think properly and make decisions. In short, it is helpful for nurses to make critical decisions.

The healthcare sector has implemented most of the services that include the usage of information technology. The nurses, during their course of learning, shall also be taught to practice efficiently. They shall also be taught the advantages as well as the disadvantages of excess usages of information technology. If they are not taught these aspects properly, then later during the practice, it may create difficulties. The knowledge regarding mobile technology shall also be taught to the nurse as it will help in better staff coordination, easier access to EHR, and enhanced communications with patients (Alves *et al.* 2020). Mobile technology helps nurses

access the references of the medicines, medical textbooks, and diagnosis records of the patients. In short, it can be said that information technology is very helpful in the field of education.

Role of information technologies during nursing training

Information technologies are also as useful in nursing training as in nursing education. The technologies or informatics are helpful for nurses in training and experiences, gaining knowledge on primary functions and technological applications, career development, and in the identification of appropriate work environments. During the training, the nurses are also taught for registering health information, medical coding and billing, and health informatics (Singh & Masango, 2020). The nurses are also trained for chronic care, personalized health care, consumer empowerment, electronic health records regarding confidentiality, quality, the connection between clinical care and population health, and privacy and security. The telemedicine technologies, PHC services improve epidemiological surveillance, better pregnancy management, maternal morbidity, and increased efficiency during service care.

Nursing training includes information technology in the form of online training, simulated learning, mobile technology, and so on. The knowledge on different software will be delivered on handling the registrations of the courses, reporting, and tracking the whole course. The nursing training will also include simulated training that will help them in the identification of vital symptoms and signs. The training will also include the identification of mobile technologies. Apart from these informatics, the nurses are also trained in soft skills. They are trained on making good relationships with the patient and providing them immense care (Alves *et al.* 2020). They are also trained for enhancing their communication and patience skills. The nurses are also trained to use the technological devices used to treat patients in different wards. Most importantly, they are trained to provide immense love and care to the patients. On the basis of their good training, they are appointed to practice in the healthcare sector. Nurses are hired on an emergency basis, and hospitals are unable to provide enough training and documentation outlining their roles in the company. Nurses frequently make mistakes as a result of a lack of training and information, which can negatively damage their image and professionalism.

Health information technology

Health information technology (HIT) is the usage of information processing in healthcare that helps in dealing with the different software, decision-making, and storage and retrieval of the data. Health information technology helps in improving the quality of care, expanding access to treatment at a reasonable rate, preventing medical error, reducing paperwork, decreasing the costs of healthcare, and enhancing administrative efficiencies (Gardner *et al.*, 2019). HIT also helps in the identification of infectious illness, evaluating the care provided in the hospitals and clinics, and tracking the improvements in the chronic illness. The different types of technologies used in the healthcare sectors are electronic medical records (EMR), bar-coding at medical dispensing (BARD), clinical decision support (CDS), computerized physician order entry (COPE), automated dispensing medicines (ADM), and so on. The technology also holds some limitations, such as lack of guidelines, wrong dose errors, and others that are needed to be identified by the professionals.

Importance of health information technology in our clinical setting to improve patient safety and quality services

Information technology is one of the most advanced technologies that can connect several databases and interfaces with people and provide necessary information to them (Alam, 2021). Information technology not only helps in providing necessary information to patients and health care members but also provides online transaction facilities to make the treatment process faster. Online websites, journals, social media, and sites are a few of the important parts of information technology that can help the organization to develop its strategy and provide training to the nurses. With the improvement of globalization and information and technology, the hospitals have also been trying to improve and modify infrastructure to adopt this technology.

Importance of scholarly websites

In many cases, nurses are appointed on an emergency basis, and the hospitals can hardly provide proper training and documents regarding their work in the organization. Due to lack of training and information, nurses can often make mistakes that can impact the impression and professionalism. In this case, they need well-documented prospectus, articles, and journals from where they can gain knowledge about their operation. Google Scholar is one of the most famous and well-designed online search engines that contains numerous articles, journals, and research papers written by famous authors worldwide (Martín-Martín, Orduna-Malea, Thelwall & López-Cózar, 2018). The research papers and journals can provide necessary knowledge and techniques for the nurse that is required for them in a hospital to carry out their duties with discipline.

Google Scholar is a smart engine where the user can set the range of time of Publication (Martín-Martín, Orduna-Malea, Thelwall & López-Cózar, 2018). The users can also search journals and articles by their names, time, peer review numbers, and authors. This interface can also provide interactive contents that can improve innovative skills and develop innovative ideas for the nurses. The readers can also find important statistics, data, and organizational charts that can help to develop the perception and understand the environment of the healthcare sector. It also helps in self-learning. The user can also search by typing the keywords in the search engine. This is also one of the simplest interfaces where the users can find several journals related to their topics. The users can also download the field for further information. Hence, informational technology provides an ample opportunity for the nurse to learn from the online sites and develop the skills to provide better facilities to the patients.

Importance of Centers for Disease Control and Prevention websites (CDC)

CDC or Centres for Disease Control and Prevention is a national public health agency in the United States (CDC, 2021). It is a federal agency that comes under the Health and Human service. The main work of this organization is in clinical practices and human health-related improvements worldwide. It also publishes journals regarding the health crisis and medicines that are significantly important for society. It publishes health-related guidelines and scientific improvement in the medical area. It also published guidelines regarding covid-19, and its protocols to stop these guidelines can also help the medical sectors for improving their skills in order to provide better services and treatment to the patients (Probst, Lee & Bazzoli, 2020). The responses from CDC help the Healthcare organizations in improving their structure and maintaining the guidelines. Hence the role of the CDC is critically important in maintaining the safety of patients and improving the clinical settings.

Importance of Lancet and other online libraries

Online libraries are the platforms where different books, journals, and research papers are stored with proper Publication dates. Online libraries can also provide e-books to the learners that can help the learner to improve their conceptions and develop proper ideas about the topic (Medina Serrano, Papakyriakopoulos & Hegelich, 2020). Online libraries also contain research data that can help in scientific research as well as medical practices to improve the knowledge in solving critical issues in the organization.

In the medical sector, the online libraries can provide necessary case studies for the nurses and other healthcare staff members to understand the situation of the healthcare organization and provide necessary data that can develop the concept. This also helps in the decision-making process and deal with the risk factors that can impact the operational capabilities of the nurses.

The Lancet is a famous Peer-reviewed Medical Journal published weekly (About, 2021). It is one of the oldest forms of medical journals available on the internet. The Lancet was founded in 1823 by Thomas Wakely, who was an English surgeon. The word length refers to a surgical instrument used for medical purposes in the Health Organization. Hence, the name is properly justified. It can help doctors and nurses to know about recent diseases, clinical threats,

and scientific innovations in the field of medicine and surgery. The doctors can also take the help of this website in prescribing medicines to the patients. Besides providing medical information, this journal also highlights the required medical practices and ethics that should be followed by the medical organizations and healthcare members. Patients' safety concerns are also an important topic that this journal discusses. Hence, this plays an important role in improving the medical structure.

Role of the electronic learning platform

The role of the electronic learning platform and social media can also play a great role in improving patient safety and clinical settings (Vermeer, Araujo, Bernitter & van Noort, 2019). Facebook, YouTube, Google reviews and Google meet some of the most important and interactive electronic platforms from where the patients and healthcare staff members can get the necessary information. YouTube is a digital platform where the creators and other organizations can publish their videos regarding tutorial introduction description and related to other aspects. There are many tutorials and introduction videos on YouTube that can help nurses in developing organizational practices. The videos can help a novice learn and develop skills easily. It also helps different creators to express the findings and share them with the community through a video. It also helps to highlight other significance related to different aspects of the medical sector.

Facebook is a social media platform where anyone can write blogs and represent their opinion on different aspects (Wu *et al.*, 2019). It can also help the organization to connect with patients. It can also be used as a platform for receiving feedback from patients. This can improve Patient Safety and organizational skills that are required to maintain the dignity of an organization. It can be accessed with a mobile phone, computer, and tablet. The healthcare organization can also reach different people through this social media platform. It also helps to spread awareness in the society and maintains Patient Safety improving organizational skills and behavior. Nurses and other organizational members can also interact with patients through social media platforms and solve their queries. It can also enable the organization to provide admission links, addresses, and locations through the interface of this platform.

Recommendations

Despite having several scopes of learning and developing skills from the online platforms and journals, there is also a need to improve the infrastructure of the hospitals so that these

technologies can be accessed easily by the healthcare staff and other members. With the emergence of modern facilities and technology, it is also important to develop and modify the infrastructure to cope up with the situational change within the organization. Information Technology can also be used for providing necessary training, online classes, online laboratory facilities, and conducting medical examinations. This can also improve the clinical settings and can encourage newcomers to perform better in the workplace (Glasgow, & Estabrooks, 2018).

Hospitals can use information technology in keeping the records of the patients, medicine, health conditions of patients, availability of beds, Intensive Care units, oxygen cylinders, available doctors and nurses. This can also help in the transaction facilities to maintain social distance in the organization during covid 19 (Andreadakis *et al.* 2020). It may also help in reducing threats and concerns for the patients and their families. The operations of the management can also be modified using Information Technology and artificial intelligence. It can also be used in managing queues, downloading invoices, and prescribing medicines to the patient.

Conclusion

Learning skills provide a better opportunity for a person to develop their skills and knowledge by learning different things from the situation, personal experience, book, online journals, online platforms, and social media. In the Healthcare organization, it plays a great role in improving the clinical setting and decision-making abilities of nurses. Google Scholar and the Lancet are some of the most important online platforms and journals that can help nurses in improving their abilities and learning skills to provide necessary treatments to the patients in the organization. Hence, autonomous learning also has an important contribution in developing the skills of nurses.

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