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Utilization of virtual literature efforts to improve independent learning in the field of nursing science and practice in Indonesia

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Abstract---The utilization of electronic literature data is a handy learning feature for adults and independent students and other researchers. This study discusses the use of technology, especially virtual data, which is part of the independent learning of nursing students in Indonesia. We get supporting data from many publications such as books, health and technology journals, and websites related to the issue of this study. The data and literature that we get cannot answer the problem without first conducting a study that involves a phenomenological approach, a systematic review of a large amount of data to find evidence to answer something phenomenal. Based on the data and discussion, we can conclude that many uses of virtual data allow independent learning to increase among nursing students. They have gained convenience through electronic data services and facilities in the era of all-digital technology. It is hoped that the results of this discussion will support future studies, especially academics in nursing.

Keywords---Utilizing, Virtual Data, Independent Learning, Improving Learning, Technology.

Introduction

It is undeniable that today, academics, researchers, and even the wider community use online information such as text, images, and audio in the form of data content they need (Abich et al., 2021). In particular, scientists such as students use data or literature to encourage their scientific improvement. Writing

and getting data online to complete assignments and essential works, reference materials, and abstract analysis together in a research climate is very common with literature data in virtual or virtual data that enables the school community (Clark & Mayer, 2016). Leveraging data quickly can only be done virtually by finding the data they need for refreshing discoveries. That is why the authors believe virtual and online data support for acceleration and concentrate on writing scientific papers provides the context oriented assets they need to take advantage of virtual data. Instead of going to a library, virtual literature saves time getting literature in the form of books, journal articles, and other content. Getting virtual data continues to grow in the digital era with the encouragement of researchers and students who make it an effective solution for assignments and exams, teaching, and other studies to accelerate learning outcomes in the digital era (Hoffman et al., 2013).

In the era of modern transformation 4.0 that is taking place, the use of the web has begun to form into one of the most famous media on the planet; given the accessibility of the office and the convenience it provides, the web is undoubtedly nothing else (Ajmain et al., 2019). However, behind the development of the use of the web, more and more violations of the data framework are growing. For example, many attempts to obtain data do not belong to them by different methods using data-driven. So with, the development of web media must also be accompanied by advances in data frame security. Data has now turned into a vital product. The ability to access and provide data quickly and accurately turns out to be very basic for an association because business associations of organizations, universities, government foundations, or individuals are essential. This is due to the rapid increase in PC innovation and broadcast communications (Wang & Wang, 2016).

The meaning of online-based information usually makes information easy to find and understand by students and other intellectual parties. The ease of obtaining information is strongly influenced by various motivations that will benefit the information and literature seekers (Coman et al., 2020). For example, much of the information in an association that intellectuals are allowed to know, similar to information about a collection of information (virtual indexes of information), is fundamental. So, users of information or data must know how to apply convenience to information collection structure. It should be seen that the information index has many benefits and advantages for students and other users but also cannot be limited by the so-called inconvenience.

Go by describing the advantages and disadvantages of an information index (Atmowardoyo et al., 2020). Many experts reveal that Gen Z, like university students, has completely different qualities and attributes from the past. Ryan Jenkins, an essayist and master on Generation Z in 2017, revealed that Gen Z has a variety of assumptions, tendencies, and work points of view and is thought to try to associate. Gen Z characters are more diverse, global in nature, and influence most people's way of life and perspectives. One thing that stands out is that Gen Z can take advantage of mechanical changes in various parts of their lives. Their innovations are pretty ordinary as they relax (Ali, 2020).

Students are also marked as age with no limit (limit more minor age). In terms of age, current student genes range from 8-to 23 years old, especially the "useful" age at school/school. With these qualities, of course, school strategists must have the option of blending and crafting appropriate instructive ideas for intellectual Genes. Schools should switch to Intellectual Gene period training, not good training (educators speak before class, and students get the information they need for their lectures by using a computer and other portable technologies (Qashou, 2021).

The benefits of the data collection framework can also be felt among nursing and other health students. Students understand the speed and convenience of using online literature data compared to visiting the library, especially when a pandemic requires data to be searched online (Bounaffaa, 2015). Information recovery should be imagined quickly and easily by using the information index. Databases can assemble, sorted, and even be found mathematically. With careful planning, the presentation of information will be done quickly and easily and tied together with control data. Because it is enough to collect information for specific reasons, it is also sufficient to control data in one place. Suppose there is a change in student address data, for example. We do not need to relive all the data in every section; however, we have one information collection (Steger et al., 2021). Additional room continuity. There is a compelling motivation to put boundaries in various places with shared use. However, only one is sufficient, which will save the additional data space guaranteed by the student affiliation of the nursing school.

Accuracy and severe use of data followed by rules of data type, data area, uniqueness of data, the association between data, etc., can help accuracy in data segment/limit required by nursing students. Availability With a database, we can back up data and sort out which data we still need and which data we need to store elsewhere. Increasing an affiliate's trade sometimes requires more significant media storage. They are mostly equipped with clients. Board workplaces are awarded different access awards as indicated by the client and their circumstances. The database can be given a mystery expression to restrict people from accessing it. Data Independence. Expect a program has been carried out, and by chance, there is a change in the substance/structure of the data. So, these movements should be performed at the data level with databases without repackaging the application program (Sukan et al., 2012).

Students view the information index providing a different point of view for each academic. For example, we have data from associations in information retail. Ongoing data are product data, offers, and purchases with the aim that some types of data users need information related to association data. Efforts to control and prevent the transmission of Covid-19 is carried out by limiting collaboration and groups and avoiding each other. This setting affects all areas of life, including the student's educational experience at school. The educational experience is a process of achieving learning goals by students through a series of exercises under the guidance, direction, and inspiration of educators (Allard et al., 2016). The strategy of limiting collaboration and groups means that educators and students are expected to adapt to the circumstances and conditions of the pandemic and carry out educational experiences that do not surprise anyone,

more specifically with eye-to-eye or web-based development frameworks—experience (within the organization).

Isman (2017) interpreted web-based learning as an educational experience that uses web networks in a growing experience (Steel, 2012). Internet learning opens the door for students to learn at their own pace and wherever students and educators are. Students can work with educators using several applications such as homeroom, video meetings, telephone or live talk, zoom, or Whatsapp groups. The experience of web-based education is a realization whose achievement will be significantly influenced by the ability of educators to utilize innovation in delivering learning materials. Writing concentrating on information on the delivery of e-learning materials indicates that not all students will find lasting success in web-based learning (Pape et al., 2012). Information from various studies also shows that barriers that will affect web-based learning outcomes are; the absence of instructors to cooperate, delivery of material that students do not perceive, the inability of guardians to direct their children to study, and the ability of guardians to support spending on the web as a data source.

This is following the assessment, which states that educators who will be successful in implementing web-based learning are teachers who use science and innovation during the time spent delivering material to students. Considering these conditions, it is essential to audit writings related to the use of information and innovation in delivering material, incredibly advanced web-based learning for elementary school students during the pandemic. This study intends to understand what advanced stages are used in most cases in web-based learning (Ma'Ruf et al., 2020).

Method

Next, in the current section, the author will explain the steps in carrying out the study to use online literature to increase independent learning in nursing science majors and practicum in Indonesia (Cheng & Phillips, 2014). To complete this discussion, we obtained digital data from several literature sources such as website books and academic works in journal publications related to virtual literature data when associated with the effectiveness and productivity of learning in the current digital era. After collecting the data, further analysis involves synthesizing data, interpreting it, and analyzing it to get valid data to answer the problems and study hypotheses (Ruggiano & Perry, 2019). This study entirely relies on publications or secondary data, from the beginning in the problem formulation section to the final reporting. The final step is to compile and report the results using a descriptive qualitative design method where we look at this data from the point of view of a technological approach; were to understand a phenomenal problem, we swallow it into a collection of data so that we can answer the problem. These are the steps of this research method from the beginning of the problem formulation to reporting the results data (Ruggiano & Perry, 2019).

Results and Discussion

In the results section, the study will present a report on the study's results, accompanied by a discussion of the relevant data and followed by evidence in the form of field scientific midwives, which we consider relevant for the classification of the data we have studied.

Advantages of online resources and data to support study

One of the advantages of data used by the nursing world online is the report by the World Health Organization (WHO) or the World Health Organization that has declared COVID-19 as a global pandemic in mid-March 2020 (Khubchandani et al., 2022). This certainty is very reasonable considering that the spread of cases has reached 118,000 in 114 countries. As we know that COVID-19 was first discovered in Wuhan City at the end of December 2019 and then became a horrendous episode (Schwerdtle et al., 2020). In Indonesia, the leading case occurred in mid-2020, which was transmitted through human-to-human transmission.

Since then, the deflection in the number of cases has grown more robust, and so far, there is no indication of a skewed turn where currently, there are 506,302 patients who have been declared positive, 425,313 patients have been declared cured, and 16,111 patients have been declared dead. The outbreak of COVID-19 is affecting various fields, including the economic, social, travel industry, and the field of schools. During the COVID-19 episode, the implementation of the educational experience underwent significant changes. In many areas in Indonesia that have been affected by COVID-19, education is done entirely on the web, and some are done semi-on-web. This is done to suppress the spread of COVID-19. So surprisingly, the solution directed by government policy is the virtual use of data which has proven to be very helpful among nursing students and teachers in Indonesia (Renoud et al., 2020).

Utilizing learning on the web or the internet is difficult for each learning unit affected by the Covid-19 outbreak (Churiyah et al., 2020). Learning units need to choose and understand how to use web-based learning stages that can be used by students and educators, not only wise and reasonable in terms of costs but also easy to understand, making it easier for educators, students, and administrators to use them. Moreover, that is no less important; more specifically, it has a total highlight to support the implementation of web-based advances ideally (Churiyah et al., 2020). One of the stages of internet learning that is free, easy to understand, and fully highlighted is Nursing E-Learning. Nursing and practice E-Learning is a web-based learning application planned by the Directorate of Student Institutions and Facilities, Ministry of Health of Indonesia (Abuatiq et al., 2017). This app is intended to help the evolving expense in nursing health by being more organized, charming, and intelligent. To date, 29,503 Nursing students are using Nursing E-Learning applications, with details of 23,813 schools using nursing servers and 5,690 nursing schools using focus servers. The number of students is 1,615,173, with details 1,253,263 students using nursing servers and 361,910 students using focus servers. The number of educators who use this application is 182,058 teaching staff, with details of

134,843 educators using the server and 47,215 teaching staff using the focused server, for online classes that have been made as many as 308.007 internet-based classes with details of 268,967 web-based classes using servers and 39,040 web-based classes using focus servers (Riantini et al., 2019).

Nursing students utilizing E-Learning resources

Nursing E-Learning has six access jobs: access jobs for nursing school administrators, subject instructors, Counseling Guidance instructors, practicum instructors, and Nursing managers (Ramos-Morcillo et al., 2020). The entry job as a madrasa administrator has several menus, including The Dashboard menu displays a rundown of student information and practical exercises as a measure, for example, the number of web-based classes that have been created, the number of students, the number of instructors and the number of leaders that have been entered into the application. Then, at that moment, the continuous login job report was displayed. The backup and Restore menu strengthen the information base to avoid information misfortune and rebuilds the results of strengthening the data set. The synchronization menu is used to synchronize students, teachers, and heads of a large number of information sections and to synchronize nursing profile information. The academic Calendar menu, the input of madrasa events or exercises every semester, for example, at the beginning of the nursing entry, was an essential part of the nursing school (Lahti et al., 2014).

The nursing School Profile menu displays the name of the school, the School Statistics Number, and the nursing school logo. Changing information must be completed through the nursing e-learning gateway. Master Data Menu (Byrne et al., 2018). This menu has two sub-menus, namely Class and Subject. The Homeroom Sub Menu is effective in adding a study room, changing, or deleting a study room that has been created. At the same time, the Sub Menu adds a subject and changes or deletes a subject. The User Management menu effectively changes or deletes student information, subject educator information, teacher information, homeroom information, and leadership information. Supervisors can add information physically one by one, or they can add all of them together by entering the information using the given success layout. Class Upgrade Menu is used to move students who are declared advanced to the class above it. The head can do this in 2 ways—direct exchange students per class, assuming that all students in the class are declared advanced to class. The following way is to transfer students individually with the assumption that at least one student in the class is announced to be absent from class. This menu is only used in even semesters in nursing schools (Hayter et al., 2012).

The Settings menu in Nursing schools is used to set the academic year and semester, enable or disable real-time notifications and local zones, and delete teacher information and online classes that have been created (Loftin et al., 2013). Version Control Migration Menu, move information if there is a shape change in the app. The E-Learning Activity Menu displays the exercises that have been completed in the application by leaders, educators, and students continuously. The entry job as an instructor has several menus, including the Teacher Profile menu, which effectively displays individual information and

updates it if there is a change or changes it if there is an error such as name, NUPTK, orientation, place, and date of birth and school of Nursing.

In addition, educators can also change their profile photos in this menu. The Nursing School Forum menu also functions as a home menu because this menu will be the initial display when educators enter the application (Kimura et al., 2017). Educators can make statements or discussions recorded as hard copies in this menu with madrasa residents, students, and different instructors. Online Class Menu effectively creates online classes. Educators can create a new web-based class by pressing the "Create Online Class" button and filling in class information, such as grade, group, class name, class description, subject, and several planned meetings in 1 semester. Online classes that have been created will be displayed under the "Create Online Class" button and then displayed in the left bar. The calendar menu displays the learning schedule that has been made by nursing management (Nash & Rice, 2018).

The communication menu, talking to different educators, and the instructor can decide to send messages to the required educators (Hill & Hollis, 2012). The notification menu effectively shows all alerts connected with educators (Sezer & Sezer, 2019). For example, there are notifications when nursing students are working on assignments/tests given when teachers or students comment on data/statements they have compiled. In addition, there are several other unique things, such as Teacher Attendance, where the instructor can measure participation online and can be checked by the madrasa principal. In addition, there is an Online Student List and an Online Teacher List, including the ability to indicate a student or educator who is continuously online. To enter and carry out classroom learning, educators can do so in the Online Class Menu by tapping on the perfect web-based class name. Then, educators will be coordinated to internet-based classes. Inside there are some basic menus. Among them is Class Timeline Menu; its capacity is like the Nursing School Forum menu. What is essential in this menu is that educators can discuss what is recorded in hard copy with nursing students in one class (Maughan & Adams, 2011).

Online support facilities to improve students' learning

The Competency Standards menu is used to enter Core Competencies and Basic Competencies for the subjects indicated by class and semester for the Nursing Knowledge and Practice Skills Minimum Mastery Criteria Menu; the capacity includes specific Competency subjects per class and semester (Ogurtsova et al., 2022). The number of credits follows the number of Knowledge weights inputted by educators in the Competency Standards Menu. The lesson Plan menu can be used to make Lesson Arrangements. To make it, educators must fill in several things such as the date of the lesson, hours, meetings, materials, learning targets, techniques, media, learning exercises, and evaluations (Campillo-Ferrer et al., 2020). The Teaching Materials menu distributes subject teaching materials to students: word, success, PowerPoint, pdf, or image. Merged Student Data Menu is used to enter students into subject classes. Educators can enter students into their subject classes by pressing the "Welcome Students" button and pressing the "Consolidate All Students" button. Naturally, all students in the group enter the subject class. Students who have entered classes for this subject

will be shown in this menu. Class Attendance Menu effectively shows student participation per class, every month, or meeting. The Teacher Journal menu records each episode students complete while the instructor is teaching. Each episode made by the instructor can be directly observed by the homeroom teacher, Nursing educators, and practicum (Klenke-Borgmann et al., 2020).

Knowledge Assessment Menu is used to raise issues/undertakings as a type of day-to-day evaluation that can be a composed test, an oral test, or a task. Composed tests can be given different decision questions, paper questions, genuine bogus inquiries, matchmaking, etc. Oral Tests can be given through quizzes or Q&A in class (Piron et al., 2010). At the same time, tasks should be possible by giving tasks to understudies both separately and in gatherings. Skill Assessment Menu, its capacity is like Knowledge Assessment Menu. The thing that matters is that this menu quantifies understudy abilities, so the evaluation procedures utilized are unique. Appraisal strategies for abilities evaluation can be execution or practice, activities, portfolios, or items. The final Semester Assessment menu can show PAS and Final Scores. The PAS scores in this menu can be handled physically or consequently coordinated from the CBT test. Report Recap menu effectively shows the Final Value Recap of Subjects for both information worth and ability esteem (Haselkorn et al., 2015).

Student Activity Monitoring Menu effectively shows understudy exercises in 1 class. The class Calendar menu effectively shows the timetable for executing tests/tests/tasks that the subject instructor has made (Mayer, 2016). The class Settings menu changes class information if there is an information blunder while making a web-based class. The entrance job as an understudy has a few menus, including the Student Profile menu, which sees individual information and updates it if there is a change or changes it if the Class Timeline Menu, work is to see data has been made by subject instructors and remark on it. The Video Conference menu goes to the eye-to-eye gatherings. This menu shows a table containing a rundown of gatherings the subject instructor has made. Understudies can join the gathering by tapping the "Join" button. The competency Standards menu effectively shows a rundown of center capabilities and essential skills of subjects that subject instructors have made (Gajos & Chauncey, 2017).

Technology in digital tools to support students learning competency

The Minimum Completeness Criteria (MCC) menu effectively shows the MCC an incentive for each subject that the subject educator has made. Lesson Plan Menu shows example designs that subject educators have made. The Teaching Materials menu shows instructing materials that have been made and sent by the subject educator (Oermann et al., 2018). Understudies can download the material. Merged Student Data Menu effectively shows a rundown of understudies who have joined the subject class. Recap the Attendance Menu shows a recap of the participation of every understudy every month that shows a rundown of tasks/tests made by subject educators. This menu shows data about fundamental abilities, models/sorts of tasks/tests, execution time, grades, input, etc (Juve-Udina, 2013). Understudies can tackle tasks/tests if they have entered the time determined by the subject educator, showing a rundown of tasks made

by subject instructors. This menu shows the essential capabilities of tasks, plans, execution time, grades, input, and others. Understudies can chip away at tasks assuming that they have entered the time indicated by the subject educator. Computer Based Test menu shows a rundown of tests that the subject educator has made. It shows the kind of replay, the execution time, and the button to do the replay (Herres, 2020). Students can do the test assuming it has been entered when the subject instructor does not entirely settle.

Nursing schools build cooperation with internet providers.

The Recap the Values menu effectively summarizes understudies' scores for both information and abilities and the last scores for the two viewpoints (Knols et al., 2020). The class Calendar menu shows the timetable for executing tests/tests/tasks that the subject educator has made (Siler et al., 2015). After seeing the highlights and menus in the Madrasah E-Learning application above, both for heads, educators, or understudies, we can presume that this application has full highlights, so educators can uninhibitedly get ready learning models, questions, or tasks. That will be given to understudies. The application with the witticism "Along with E-Learning Nursing School, Ready to Meet a Glorious Future" can likewise utilize an Android-based cellphone, making it more straightforward for instructors and understudies to use it. Hence, this application can be the right and savvy answer for madrasahs to complete internet learning, particularly during the ongoing Covid-19 pandemic (Festiawan et al., 2021).

At the end of this paper, the creator might want to give ideas. Hence, the presence of this excellent application is not excess, implying that this very much planned application should be utilized ideally by the instruction unit (Yang et al., 2021). Here are some ideas from the creator to streamline Madrasah E-Learning applications: The Ministry of Religion. For this situation, the Directorate of Institutional and Student Facilities Curriculum guarantees that each educator in every schooling unit gets it and has adequate abilities to utilize the application. This should be possible by holding preparing or in-house preparation or the like for madrasah administrators. Then, madrasah administrators who have gone to the preparation are expected to give preparation to educators and understudies in their particular Nursing school (Laberge, 2020). The Ministry of Health, for this situation, the Director-General of Health Education registers the Nursing E-Learning application with the goal that it tends to be gotten to involving a financed learning share because of the MoU between the Ministry of Health and Operators (Telkomsel, Indosat, XL Axiata, Tri and Smartfren). As is known in the MoU, the Madrasah E-Learning application is excluded from the rundown of 19 learning applications that can be gotten to through the financed concentrate on the amount (Djawad et al., 2019).

Every educator should know that this application is intended to help the growing experience, so it is more organized, fascinating, and intelligent as per what has been planned by the Directorate of Institutional and Student Facilities Curriculum of the Indonesian Ministry of Health (Salehudin et al., 2021). Hence, each instructor has the energy to utilize this application, not even making it a weight since adding work is thought of. Research directed by (Fonseca Braga et al., 2016) applies distance advancement by including last-level nursing

understudies planning to satisfy Neonatal particularity abilities. The learning material utilized is recreation innovation for e-Baby nursing activities. This innovation utilizes SRNPT, which incorporates reenactment exercises. The innovation utilized in this study is likewise automated and can be gotten to from a distance. Besides, this study expressed that nursing understudies' mental scores were higher in the gathering than in pre-owned recreation innovation in their clinical practice (Agustina et al., 2019).

As opposed to past research, research led by Croft et al. (2010). Indonesia isolated respondents into three gatherings to analyze distance learning, up close and personal learning, and mixed realizing, consolidating distance learning eye to eye straightforwardly. The consequences of this study demonstrate that the mental worth seen from the TOEFL score is higher in the gathering with the mixed learning technique. This learning permits understudies and the training group to interface more when eye to eye. Notwithstanding, understudies can deal with tasks all the more deftly through distance, getting the hang of utilizing modules made by the instructing group. Stell et al. (2018) led an investigation of 75 nursing understudies in Canada utilizing the SMART eMAR framework, an instructive game application (Chachula et al., 2015).

The material in this application permits understudies to attempt the means of giving pharmacological treatment to patients essentially. This study's consequences expressed a diminishing degree of tension in understudies prior to the immediate treatment of genuine patients. It was expressed that there was an expansion in recurrent abilities and admittance to mastering (Andersen & Papazoglou, 2015). This study presumes that virtual nursing practice permits understudies to have better genuine abilities. In Spain, one more review led by Vizcaya-Moreno and Pérez-Cañaveras (2020) corresponds to web-based entertainment with learning strategies suitable to the respondents' personalities. Respondents have a place with Generation, who is presented with innovation favor and mentorship learning techniques, online instructional exercises, sound visuals, intelligent games, and virtual learning.

Diab & Elgahsh (2020) expressed that learning results expanded altogether by utilizing advanced learning materials. This concentration also expressed an expansion in self-viability in improving the global gathering. In any case, there is no massive contrast for learning results as estimated by the last score of the subject (Roy, 2019). The five articles can outline the execution of distance learning in nursing training and its impact on the development of a structure of reasoning and clinical capacities. This should be visible from the expansion in subject scores, self-viability in completing undertakings, and the clinical capacity of understudies. The execution of distance learning has been displayed to influence mental, full of feeling, and psychomotor perspectives (Silvana et al., 2021).

Conclusion

We repeat that this study aims to collect scientific evidence supporting the use of technology and online literature to improve the quality of nursing school learning and practicum quality. So, we can conclude the essence that we believe has

answered the issues of learning problems in the era of digital technology and its benefits for the world of education, especially nursing faculties and schools; the use of supporting nursing learning, including online resources, is very helpful for students, especially during the pandemic where academics and practitioners prioritize getting all resources through online materials because they respond to government policies to minimize face to face while responding to the pandemic. Another theme is how students use e-learning to support learning and practicum on various assignments given on campus. They cannot travel from school and have limited time to find learning resources manually.

Furthermore, how online support facilities improve learning in nursing schools when they strengthen learning and field practice where an online resource has provided convenience both in learning and field practicum. Likewise, digital tools have been proven to support the achievement of nursing student learning competencies. With the ease of technology, it can provide instant and convincing services where students are helped. The academics make learning activities and practicums easier to run effectively, even during the pandemic.

We also explain how nursing schools build collaborations with internet providers to launch academic services, especially electronic learning data, to support learning in schools. With collaborations such as Telkomsel and other provider companies, it has been proven that various services can be run with few problems because technology sometimes provides weaknesses. However, it has been proven that innovation and technological support, especially virtual data and electronic learning, have become solutions that positively impact learning in nursing school.

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