

## NURSES' VOICE FROM THE FIELD

# Website Innovation for Nursing Student Learning during the COVID-19 Pandemic

Fandro Armando Tasijawa, S.Kep., Ns., M.Kep.<sup>1</sup>

COVID-19 became a severe threat to education (Daniel, 2020) like in Indonesia, resulting in the government issuing policies that institute learning/working from home arrangements. With the anticipation of the virus spreading widely, universities are burdened to innovate their arrangements, such as admissions, learning activities, examinations, and even graduations. The use of online platforms such as Google Meet, Zoom, and CloudX becomes massively utilized to support these policies.

The conversion of conventional learning methods from face-to-face to online has a positive and negative impact on students and lecturers. I found that students and lecturers who carry out various learning activities in front of laptops or smartphones for more than six hours feel the harmful impacts. These impacts include physical, psychological, and socio-economic aspects. The physical impacts— weight gain because of the low physical activity, neck strain due to the poor posture facing the laptop screen, less sleeping time due to the effects of looking at the screen for a long time— are mostly felt. Psychologically, it has also led to increased stress and anxiety. Economically, pockets are easily emptied by merely buying an internet. In fact, the students are required to spend money to buy internet credit – which, when totaled for two weeks, could go as high as IDR100,000,00 - IDR200,000,00 (roughly PHP360- PHP720; USD7-USD14)

Lecturers under this arrangement had to use several media to support learning activities such as WhatsApp, Google Classroom (GCR), Zoom, Google Meet, and other platforms. Lecturers have many responsibilities such as teaching, doing community services, conducting research, and engaging in office work. This can lead to overwhelming tasks on hand. The best way to overcome that problem is to build a teaching management system for lectures that can be accessed through one gate system but connected to various media. Thus, I propose one integrated system to overcome the obstacles of using many platforms.

The web-based media that is very suitable for them are WhatsApp, Zoom, Google Forms, Cloud X, Kahoot.it/quizziz, and other applications connected to the website. This innovation received a positive response from students as a learning medium

during the pandemic. Even though each college has its own website, I recommend a suitable website for the lecturer. Why is this so important? Because with a personal website, the lecturer can fully control and regulate the entire content. These include student consultations, lecture schedules connected to the Zoom platform or Cloud X, real-time examinations using the Kahoot.it/quizziz platform, lecture materials, learning videos, tasks, and books that students can download.

As a developing country, the main question of the lecturers will be "How much would it cost?". Many platforms offer their services for free with the site name's requirement (domain) following the original domain of the web. This, however, comes with many limitations. Thus, this experience I am sharing is a free website.

The individual websites made by lecturers can be linked to the faculty's main website so that students can easily access the lessons in the main portal. This system becomes a breakthrough in faculty lecture management. Nursing lecturers in developing countries can utilize this system most especially now where several media is used and more attention is needed to monitor all activities.

The website "Media Edukasi Keperawatan Jiwa" consists of several menus such as lectures, student grades, examination, teaching materials, learning videos, and member areas that can be accessed through laptops or smartphones. The learning video menu is an innovation in this pandemic because the students can learn independently by playing videos repeatedly to understand these materials (Stuckey & Wright, 2020). The other menus were put in place to help students in the lecture process. Lecturers can set up when the information is published, activate/disable the link, and set a password for a particular class.

As an example, the website "Mental Nursing Media Education" has been accessed 3,607 times by 999 users for the past three months. The site has received both satisfactory and dissatisfactory feedback from students. Nursing students from the mental nursing course were asked to evaluate the site based

<sup>1</sup> Lecturer at the Faculty of Health, Universitas Kristen Indonesia Maluku, Indonesia; fandrotasijawa@gmail.com; <https://orcid.org/0000-0002-0444-3840>  
Scopus Author ID: 57286855300

**Figure 1.** Website "Media Edukasi Keperawatan Jiwa" in supporting mental health nursing lectures.



on its content, accuracy, format, ease of use (user-friendly), and timeliness (Fitriansyah & Harris, 2018). Their responses can range from very satisfied (SP), satisfied (P), dissatisfied (TP) up to very dissatisfied (STP). They were also enquired to give inputs on how to develop the site further based on their expectations as users. Out of 277, only 263 students accomplished the website satisfaction evaluation. Students were assured that their evaluation shall not affect their grades and will remain anonymous to the lecturers.

Students evaluated the website's content in terms of its method of delivery, and whether the site is easy to understand, complete, and clear. For the learning needs, 54.4% were very satisfied, 45.2% were satisfied, and 0.4% were not satisfied. Whereas, in terms of whether the website is easily understandable, 46.8% were very satisfied, 51.3% were satisfied, and 1.9% were not satisfied. Meanwhile, in terms of completeness of the website for learning, 44.1% were very satisfied, 55.1% were satisfied, and 0.8% were dissatisfied. Lastly, in terms of clarity of the content, 47.1% were very satisfied, 51.7% were satisfied, and 1.1% were not satisfied. Overall, students were very satisfied with the method of delivery and were satisfied with the contents being easily understandable, complete, and clear.

In terms of accuracy, students rated their satisfaction level on the correctness and accuracy of the displayed information on lectures (very satisfied 51.7%, satisfied 47.1%, not satisfied 1.1%) and appropriateness of the links showed on the webpage

(very satisfied 55.1 %, satisfied 43%, not satisfied 1.9%). Overall, students were very satisfied in the websites' accuracy.

For the format, students graded the website's design with regards to the attractiveness of the color settings (very satisfied 44.1%, satisfied 52.9%, not satisfied 2.3%, very dissatisfied 0.8%), layout's user-friendliness (very satisfied 49, 4%, satisfied 46.4%, not satisfied 4.2%), and easily understandable menu structure and link (very satisfied 56.3%, satisfied 41.8%, not satisfied 1.9%). Overall, students were very satisfied with the user-friendly layout and easy to understand menu structures and link, and were satisfied with the color settings.

Regarding the website's ease of use, students graded it in terms of its user-friendliness (very satisfied 50.2%, satisfied 48.7%, not satisfied 1.1%) and accessibility anytime and anywhere (very satisfied 54.8%, satisfied 43.7%, not satisfied 1.5%). Overall, it showed that most students were very satisfied with the website's ease of use.

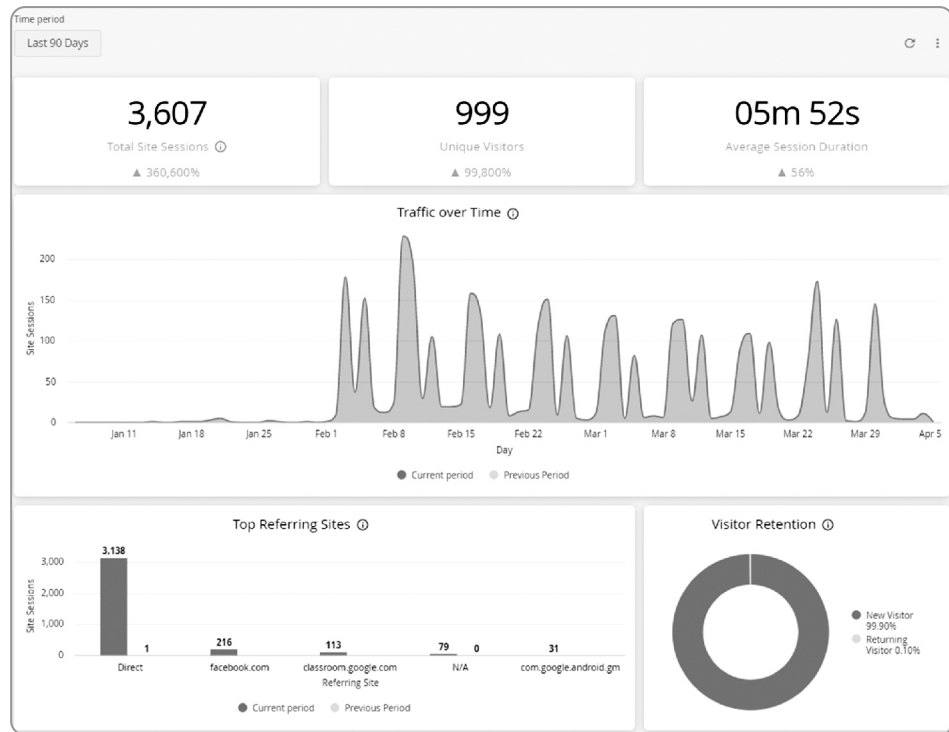
The timeliness of the website was evaluated based on how quickly the lectures were posted (very satisfied 44.5%, satisfied 52.5%, not satisfied 3%) and updated (very satisfied 42.6%, satisfied 54.8 %, not satisfied 2.7%). It revealed that most students feel satisfied with the timeliness of the website.

Overall, those evaluation showed students' satisfaction with the web-based media. In addition to quantitative evaluations, qualitative responses also showed students' satisfaction about the website. Sample responses were *"In my opinion, what we use during the learning process, especially the mental nursing course is very good, and I become happy to learn about the*



**Figure 2.** One of the learning videos at the 3rd meeting of the mental health nursing course

**Figure 3.** Website Traffic on "Media Edukasi Keperawatan Jiwa" for the past 90 days



mental treatment.” and “Thank you for the education nursing education media’s media website, because it was easier for me in the learning process.” Student satisfaction with the website is an illustration that using website is an effective medium in the learning process.

Website development is not without criticisms. One of the responses in terms of receiving technical instructions before using the web-based media was “I have many obstacles when just starting, my advice, [students] must be trained well, or there is a guide to accessing the website.” Other responses included reconsidering design templates or adding images to lessen boredom. Lecturers need to develop an effective, efficient, and exciting website to lessen students’ dissatisfaction.

In addition to evaluating students’ satisfaction, lecturers also found several obstacles during the teaching process. Some obstacles include:

1. Students must be oriented on the website, which requires a considerable amount of time for a first meeting.
2. Most students come from villages that are not familiar with the internet. When taught, however, they can get used to operating it easily, and get new insights related to the use of the internet.
3. The pandemic has made students to return home because of parents’ worries or expensive living costs in the city. Thus, in rural villages they must install an internet network to have access to online learning materials.
4. Using a website is very easy for students in urban areas, but students in rural areas have limited internet connection. The website-based test makes it easy for lecturers to evaluate student cognitive abilities. As an alternative, students who have a connection problem can use an essay collected through the website.

In conclusion, I recommend nursing lecturers in developing countries to be active in continuing education related to distance learning during a pandemic; practice consistently to be able to get used to new platforms; and collaborate with their institutions’ Information Technology (IT) teams in developing efficient and effective learning methods and platforms.

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## ABOUT THE AUTHOR



**Fandro Armando Tasijawa, S.Kep., Ns., M.Kep.** is a Lecturer at the Faculty of Health, Universitas Kristen Indonesia Maluku. His research interests include recovery of schizophrenia, schizophrenia and its relationships, adolescent reproductive problems, violent behavior, and counseling for HIV-AIDS.