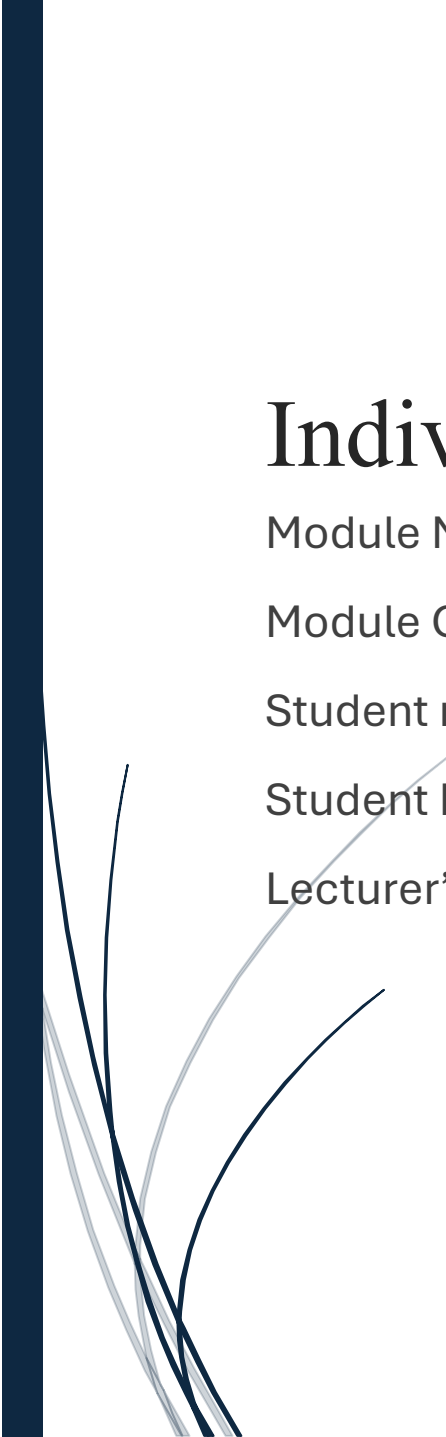




Individual Report

Module Name: Digital Skills and Research Methods

Module Code: LCHS 4007

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Section 1: Introducing the Research Paper and Topic Development

1.1 Paper Details. This report is an extract of the research paper A cross-sectional study about discipline-based self-perceived digital literacy competencies of nursing students.

The primary subject or issue that the paper is dealing with. In this research, we focus on the digital literacy skills of nursing students. The researchers examined students' self-assessments of digital skills across five areas. These included skills such as information literacy, digital research, digital communication, digital learning, digital innovation, and wellbeing. Students also reported lower levels of confidence in information literacy than in digital research and digital innovation. According to the researchers, this is important since healthcare and nursing education programs are increasingly reliant on digital technology (Martzoukou et al., 2024).

(Written by Konstantina Martzoukou, Errol Sadullah Luders, Jane Mair, Petros Kostagiolas, Neil Johnson, Fiona Work and Crystal Fulton. The paper was published in the Journal of Advanced Nursing in 2024. The article was received in December 2022, revised in May 2023 and accepted for publication in July 2023 Martzoukou et al., 2024).

1.1 Main Topic or Problem Explored in the Paper

The study focused primarily on nursing students, whilst other health-related courses were also involved. An online survey of 182 students was used to collect responses. Rationale of the study: A digital skills questionnaire examines students' advantage in their studies and successfully supported career experience for the next generation (Martzoukou et al., 2024).

1.2 Who Is the Research About?

Digital literacy is important in the UK's health and social care sector since healthcare professionals make use of digital technology both when they are studying and in their future careers. It is necessary for nurses to be able to locate reliable health information and to use digital technology properly. According to McCarthy et al. (2018) improving digital literacy among nursing and midwifery students can assist them in acquiring the skills needed to apply evidence in their future practice.

Digital literacy is therefore a vital skill for nursing students and for those who will become healthcare professionals.

1.3 Why Is This Topic Important in UK Health and Social Care?

Digital literacy is important in UK health and social care because healthcare professionals use digital technology in their studies and in their future work. Nurses need to be able to find reliable health information and use digital technology correctly.

McCarthy et al. (2018) found that improving digital literacy in nursing and midwifery students can help them develop skills for using evidence in their future practice. Therefore, digital literacy is an important skill for nursing students and future healthcare professional

Section 2: Understanding the Purpose and Research Question

2.1 Research Question(s) or Objectives

Study purpose The primary objective of the current study was to investigate the digital literacy skills among students, with a particular focus on nursing students. The researchers were interested in how students' digital skills differed by both age and course type.

“1. To repurpose, with the input of academic staff/students, an existing general self-assessment digital competencies survey tool (Martzoukou et al., 2020) in a way that reflects digital skills needs in specific disciplines. 2. To explore the digital competencies of students in different discipline areas, by means of administering the repurposed survey tool, identifying demographic and course-related differences. 3. To critically discuss with students their experiences of developing digital skills and the challenges they encounter, particularly those related to lower levels of self-reported digital competencies. 4. To make recommendations for a discipline-specific approach that relates to the development of students' digital competencies and collate useful digital literacy training resources”

Section 3: Understanding the Research Methods

3.1 Overview of Quantitative, Qualitative, and Mixed-Methods Research

Three common types of research methods that you will come across are quantitative, qualitative, and mixed-methods research. They each have a specific purpose of use in health and social care.

Quantitative research, on the other hand, collects and researches information through numbers and statistics. This can be a measure of something or helps compare results across groups. For instance, using a questionnaire to assess patient satisfaction with a

GP service and using the data to compare different groups of patients (Creswell and Creswell, 2018).

Qualitative research deals with how humans behave. Usually researchers collect data from interviews, focus groups or observations. As an illustration, a researcher might speak with patients about their experiences of being cared for by nurses. This can provide more in-depth context about people's experiences (Creswell and Creswell, 2018).

Mixed-methods research combines both quantitative and qualitative approaches in a single study. This means the researcher collects numerical data and people's opinions or experiences as approved. For example, one could assess patient satisfaction using a questionnaire and then conduct interviews with some of those patients to delve deeper into their experiences (Creswell and Creswell, 2018).

In other words, quantitative research mainly uses numbers, qualitative research focuses on experiences and opinions, and mixed-methods research brings both approaches together. The choice of the method is dictated by scientists' needs.

3.2 Research Methodology Used in Your Chosen Paper and Why

This research paper employs a quantitative cross-sectional research design. The researchers conducted an online survey to assess digital literacy skills among students in the main nursing student. The questionnaire covered specific areas of digital literacy: information literacy, digital research, digital communication, digital learning, and digital innovation and wellbeing (Martzoukou et al., 2024). The study design described by the authors is a cross-sectional quantitative study.

This survey was conducted online between November and December 2021. The questionnaire was answered by 182 students. This is acceptable for online surveys, since many students were learning through a hybrid system during the COVID-19 pandemic.

This background information was strong enough to prove that, for this research, the qualitative method is suitable. The questionnaire generated numerical data that could be analyzed using statistics. The researcher applied descriptive statistics (frequencies, percentages, means, and median mode). They used the Mann–Whitney U test and the Kruskal–Wallis H test to compare groups on age and registration status.

This approach allowed the researchers to identify patterns and disparities in students' digital competencies. Findings included lower self-reported competencies in information literacy in research and digital research & innovation.

The researchers also added a few open-ended questions in the survey. Thematic analysis was used to analyze these responses. Nonetheless, the study's main approach was quantitative, as most of the data collected and analyzed were numerical.

3.3 Primary and Secondary Data: Definitions, Differences, and Application to Your Paper

Primary data is the data that researchers collect themselves during their visits. Data is collected to address the questions of a given study. Primary data are the data you collect, such as questionnaires, interviews, observations, and measurements.

Secondary data has already been collected by other people or organizations and is used in another research study. These might include published articles (with or without peer review), government statistics, and existing reports. The difference is that primary data is collected specifically for the current research, while secondary data already exists and is used again.

The researchers in the selected research paper primarily utilized primary data. Between November and December 2021, they gathered information directly from students using an online questionnaire. The survey was completed by 182 students. In the same sense, students responded to a questionnaire with items representing their level of digital literacy across different domains, such as information literacy, digital research, digital communication, and using technology to participate innovatively.

They ensured respondent anonymity and informed consent during the survey. This research project was approved by the relevant ethics committee.

These data were then subjected to different statistical analyses. The results were described using frequencies, percentages, means, medians and modes. Group comparisons and identification of statistically significant differences were performed additionally using the Mann-Whitney U-test and Kruskal–Wallis H-test. Responses to the qualitative, open-ended questions were analyzed using thematic analysis.

In general, the data used in this research are primary data since the researchers directly conducted an exploration of data from students for this study. This enabled them to learn how students perceived their digital literacy skills.

Section 4: Conclusion

This Reading has helped me because I now see how research is conducted in Health and Social Care. The selected article examined the digital literacy skills of nursing students using a quantitative cross-sectional research design. Using an online questionnaire, the researchers obtained primary data from 182 students. It was then analyzed using

statistical methods to examine the students' answers and compare groups (Martzoukou et al., 2024).

While doing this work, I realized that there were many research methodologies, each with a different purpose. Quantitative research is numbers and statistics-based, but qualitative research tends to be very people-focused. I also found that mixed-methods research combines the two. A key thing I also learned was the difference between primary and secondary data. Primary data is information collected firsthand, while secondary data has already been collected and serves a different purpose.

I also found out that the study is based on data collection and helping people in a convincing manner. Also, this will improve my future studies in Health and Social Care by giving me a clear understanding of how research is conducted. As a future healthcare provider, I would need to understand research and evidence, as they can serve as the basis for decision-making and enhancing patient care delivery. In summary, this assignment taught me about research skills and how to use them in health care.

References

- O'Connor (2020) — secondary data analysis en nursing research. Es un artículo publicado en Clinical Nursing Research
- Nes et al. (2021) — technological literacy in nursing education; publicado en Journal of Professional Nursing.
- Brown et al. (2020) — digital literacy de nursing students
- Martzoukou - A cross-sectional study of discipline-based self-perceived digital literacy .pdf
- Booth et al. (2021)
- Journal of Advanced Nursing - 2023 - Martzoukou - A cross-sectional study of discipline-based self-perceived digital literacy.pdf
- Creswell/Creswell

