International Journal of Midwifery and Nursing Practice

Tamilarasi B
Principal, Madha College of Nursing, Chennai, Tamil Nadu, India

Kanimozhi M
Vice Principal, Madha College of Nursing, Chennai, Tamil Nadu, India

Jocelyn Jebarathna J
Lecturer, Madha College of Nursing, Chennai, Tamil Nadu, India

Impact of e-training module on students readiness to learn in technology enhanced environment among students in selected college of nursing

Tamilarasi B, Kanimozhi M and Jocelyn Jebarathna J

DOI: https://doi.org/10.33545/26630427.2023.v6.i2b.148

Abstract

Technology Enhanced learning is used to enhance the learning experience and how educators teach. Educators can turn to both analog and digital technologies to help their students learn more efficiently and effectively. A pre experimental one group pre-test post-test research design was adopted for the study and 30 B.Sc. (N) students were selected using simple random sampling technique. A self-developed 3-point Likert scale on student's attitude on readiness to learn and self-developed computer skill observation checklist to assess the level of Attitude and Practice respectively for one hour and e-learning module was administered for 1 hour daily for one week and posttest was done using the same tool. The study findings showed that the pretest mean level of attitude was 40.6 with standard deviation of 9.8 and the posttest mean level of attitude was 54.36 with the standard deviation of 2.74. The paired `t` value was 8.87 which revealed that there was a highly statistically significant difference between the pretest and posttest level of attitude at $p<0.001$. The pretest mean level of practice was 44.7 with standard deviation of 19.56 and the posttest mean level of practice was 85.5 with the standard deviation of 3.87. The paired `t` value was 12.8 which revealed that there was a highly statistically significant difference between the pretest and posttest level of practice at $p<0.001$.

Keywords: E-training module, readiness to learn, technology enhanced environment

Introduction

Learning is a process by which behaviour is either modified or changed through experience or training. Learning is relatively a permanent change in response potentially which occurs as a function of reinforced practice. Readiness for learning refers to the present cognitive level of students in the learning continuum. It implies the degree of inquisitiveness of an individual to learn. Learning readiness refers to how well a pupil is equipped to learn, including circumstantial and environmental factors.

Digital Educational Technologies (DET) have been used increasingly in recent years due to technological evolution. It implies profound changes in teaching practices with consequences in the teaching-learning process in nursing, the use of DET is seen as a resource that is complementary to traditional teaching with increasing use and good results in enhancing nursing students' problem-solving skills.

Computer-based learning has numerous advantages. It gives students the chance to accommodate and solve problems independently, it can increase motivation during the learning process, and it offers students direct feedback. Students will also receive an authentic learning experience and increasing their level of knowledge retention.

Need and Significance in Nursing

The education of nursing students needs the combination of intellectual and psychomotor skills to achieve the required competencies for practice. Intellectual skills include clinical reasoning and decision-making abilities, which demand knowledge of the MS word, MS power point, MS excel, email navigation, adjusting system setting and antivirus software. Nurses employ a variety of patient data to better facilitate situation awareness, including patient diagnoses, an assessment of the data collected, and prediction of potential patient outcomes to help in care planning.

Increasingly technology is becoming an integral part of teaching and learning in educational institutions. One of the critical tasks confronting teachers today is to integrate technology in their classroom to facilitate learning and enhance student achievement.

Corresponding Author:
Tamilarasi B
Principal, Madha College of Nursing, Chennai, Tamil Nadu, India

To accomplish this task, they often develop a technology enhanced learning environment for their students. Technology can be viewed as the tools and related techniques that people use in achieving their aims.

Wafa Ali (2016) [6] has carried out a study on readiness of nursing students for e- learning in El Dawadmee Applied Medical Science, Shaqraa University. A cross sectional, descriptive research design was performed among 113 female nursing students using purposive sampling technique. The results showed that the majority of nursing students revealed total high score level of e-Learning readiness. The subscale of Technology Acceptance was the highest average score and Motivation was the lowest average score. Moreover, the nursing students were ready for e-learning. The researchers recommended for implementation of new technologies with instruction and e - learning can be used as a tool in undergraduate nursing education.

The teaching activity has changed with the internet or devices such as computers, smartphones, and tablets. It is now possible to use other forms of education and different means of learning, which allow technology to focus on education towards teamwork, the critical capacity of students, and the learning of values.

Statement of the Problem
A study to assess Impact of E-Training module on students readiness to learn in technology enhanced environment among students in selected College of Nursing.

Objectives
1. To assess the pretest and post-test level of students readiness to learn in Technology Enhanced Environment.
2. To evaluate the effectiveness of E- training module on Students Readiness to Learn in technology enhanced environment.

Operational Definition
Impact
Refers to the desired outcome on students readiness to learn in technology enhanced environment among students after the E-training Module.

E- Training Module
Refers to the computer based training which comprises of practice skills in MS Word, MS Excel, MS Power point, System setting operation, Email Navigation and Handling Antivirus software for the duration of 1 hour daily for one week.

Students Readiness to learn in technology enhanced environment
Refers to the learning ability of students in computer based education in terms of attitude and practice as measured by self-developed 3 point Likert scale on student's attitude on readiness to learn and self-developed computer skill observation checklist respectively.

Students: Refers to the individuals studying III year B.Sc Nursing in Madha College of Nursing.

Hypothesis
H1: There is a significant difference in the pretest and post-test levels of attitude and practice on Students Readiness to Learn in Technology Enhanced Environment after e-training module.

Delimitations
▪ The study is delimited to 30 III Year B.Sc. Nursing Students.
▪ The period of data collection is delimited to one week.

Methodology
Quantitative research approach was adopted for the study. Pre experimental one group pretest posttest design was selected. The study was conducted in Madha College of Nursing in Kundrathur at Chennai. Population consists of students pursuing B.Sc. Nursing III year. The sample of 30 students who fulfilled the inclusion criteria was chosen using simple random sampling method. The tool used for the study was a self-developed 3-point Likert scale on student's attitude on readiness to learn and self-developed computer skill observation checklist to assess the level of Attitude and Practice respectively.

Student's attitude on readiness to learn
It consists of 20 statements and scored as 3-Agree, 2-Somewhat Agree, 1-Disagree.

Scoring interpretation
Unfavorable Attitude - 1 to 20.
Moderately Favorable Attitude- 21 to 40.
Favorable Attitude - 41 to 60.

Computer skill observation checklist
It consists of 45 statements and scored as 2-Fully confident in this area, 1-Some skill, 0-Little / No skill.

Scoring interpretation
Inadequate Practice - 0-30.
Moderately Adequate Practice- 31-60.
Adequate Practice - 61 to 90.

After obtaining the consent from the College and the students, the data collection procedure was started. The attitude and practice was assessed using the student's attitude on readiness to learn scale and computer skill observation checklist respectively for 1 hour. After the pretest, e-learning module was administered for 1 hour daily for one week and posttest was done using the same tool.

Results and Discussion
The data collected was analyzed using descriptive and inferential statistics. The demographic variables of students showed that majority 13 (43.3%) were in the age group of > 21 years, majority 22(73.3%) were females, all parents 30 (100%) were non-IT employees. majority 22 (73.3%) had prior knowledge.

The first objective of the study was to assess the pretest and post-test level of students readiness to learn in Technology Enhanced Environment.

The pretest level of attitude revealed that majority 19 (63.3%) had favorable attitude, 11 (36.7%) had moderately favorable attitude and none of them had unfavorable Attitude. The posttest level of attitude revealed that all 30 (100%) had favorable attitude and none of them had either moderately favorable attitude or unfavorable Attitude.
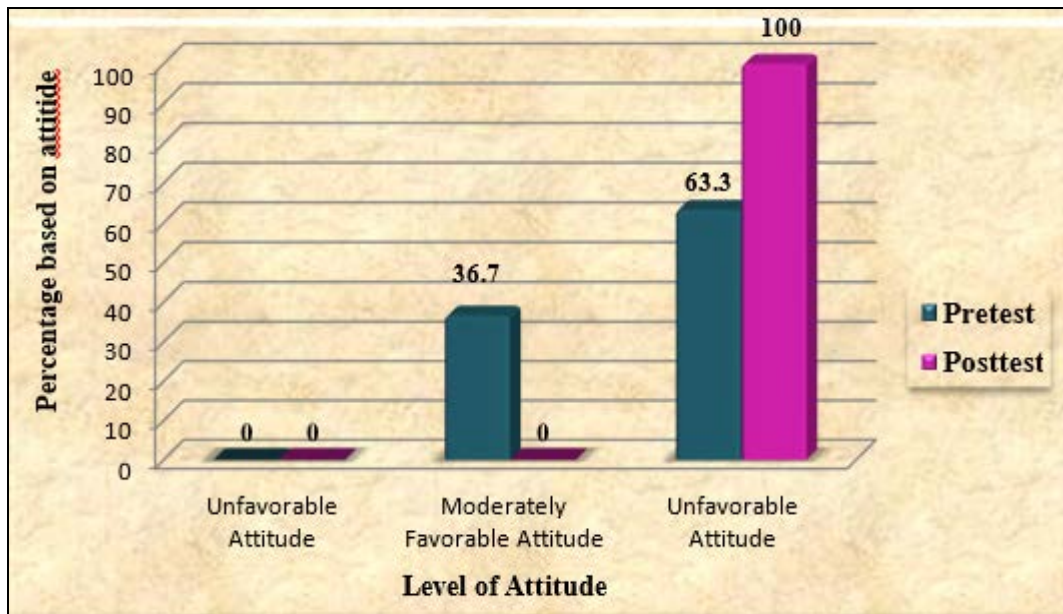
Fig 1: Frequency and percentage distribution of pretest and posttest level of attitude on readiness to learn in technology enhanced environment among students
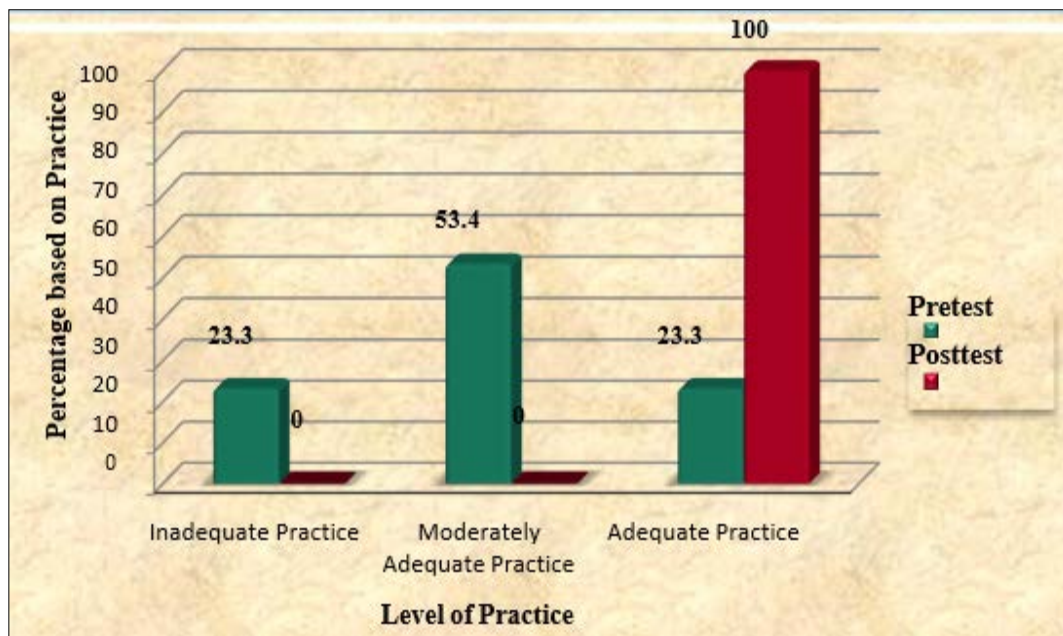

Fig 2: Frequency and percentage distribution of pretest and posttest level of practice on readiness to learn in technology enhanced environment among students

The pretest level of practice revealed that majority 16(53.4%) had moderately adequate practice, 7(23.3%) had adequate practice and 7(23.3%) had inadequate practice. The posttest level of practice revealed that all 30(100%) had adequate practice and none of them had either moderately adequate practice or inadequate practice.

The second objective of the study was to evaluate the effectiveness of E- training module on Students Readiness to Learn in Technology Enhanced Environment

Table 1: Mean and standard deviation of pretest and posttest level of attitude & practice on readiness to learn in technology enhanced environment among students (N=30)

Variable	Pre-test		Post-test		
	Mean	SD	Mean	SD	Paired T-Test
Attitude	40.6	9.8	54.36	2.74	8.87
Practice	44.7	19.56	85.5	3.87	12.8

The mean level of attitude in pretest was 40.6 and in posttest was 54.36 with the standard deviation in pretest was 9.8 and in posttest was 2.74. The paired `t` value was 8.87 which revealed that there was a highly statistically significant difference between the pretest and posttest level of attitude at $p<0.001$.

The mean level of practice in pretest was 44.7 and in posttest was 85.5 with the standard deviation in pretest was 19.56 and in posttest was 3.87. The paired `t` value was 12.8 which revealed that there was a highly statistically significant difference between the pretest and posttest level of practice at $p<0.001$. Hence it showed the effectiveness of E- training module on students readiness to learn in technology enhanced environment.

Conclusion

The present study was conducted to assess the Impact of E –

Training Module on Students Readiness to Learn in Technology Enhanced Environment among students in Selected College of Nursing. The study findings showed that there was an increase in the level of attitude & practice on readiness to learn in technology enhanced environment among students.

Conflict of Interest
Not available

Financial Support
Not available

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How to Cite This Article
Tamilarasi B, Kanimozhi M, Jocelyn Jebarathna J. Impact of e-training module on students readiness to learn in technology enhanced environment among students in selected college of nursing. International Journal of Midwifery and Nursing Practice. 2023;6(2):87-90.