IOSR Journal of Research & Method in Education (IOSR-JRME)
e-ISSN: 2320–7388,p-ISSN: 2320–737X Volume 3, Issue 4 (Sep. –Oct. 2013), PP 41-44
www.iosrjournals.org

Web based Vs traditional: A comparison of two instructional methods to teach obstetrical palpation for antenatal mothers among B.Sc(N) II year students

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Abstract: *It is commonly thought that new technologies make a big difference in education. Large educational establishments are responsible for facilitating the uptake, development and implementation of technology in teaching and learning. Quasi experimental Post test only Design was employed. 15samples in each group were selected by lottery method from B.Sc(N) II year. The method of obstetrical palpation is compared between web based instruction and traditional instruction. Post test on knowledge was assessed by Structured Multiple Choice Questionnaire and skill was assessed by Observation checklist with rating scale. Knowledge on obstetrical palpation among students in web based group is effective in the mean score of 8.4 with 1.183 standard deviation and the standard error mean was 0.306 than that of students in the traditional group. Skill on obstetrical palpation revealed that the ability to do the obstetrical palpation skillfully was higher among students in traditional group in the mean score of 27.87 with 5.951 standard deviation and standard error mean was 1.536 but there was no significant difference between the traditional and Web based teaching to teach obstetrical palpation at the level of P<0.01. The combination of these two methods of education may further enhance the students skill acquisition level.*

Keywords: *Antenatal mothers, Instructional Methods, Obstetrical palpation Traditional Web based*

I. Introduction

It is commonly thought that new technologies make a big difference in education. Large educational establishments are responsible for facilitating the uptake, development and implementation of technology in teaching and learning. Development of new learning environments can promote active participation through repeated practice, encourage shared experiences and enhance student motivation. Instructional methods refer to strategies used within a course to convey course content such as providing opportunities for practice or group discussions. In recent times, " Traditional instruction" has been considered a major cause of a dysfunctional and even an out dated in educational system. Using technology and the web helps students get excited about their learning, become more active and involved. Web based instruction is now a rich educational resource that promotes and facilitates student learning and is increasingly being used to deliver course content in nursing.

J. Michael Weber and Ron Lennon had conducted a study to measure and compare the effectiveness of a Web-based course delivery system to a traditional course delivery system. The results indicate that a web-based course is effective and equivalent to a traditional classroom environment. As with the implementation of all new technologies, there are some pros and cons that should be considered. The significant pro is the element of convenience which eliminates the constrictive boundaries of space and time. The most notable con involves the impersonal nature of the online environment. Overall, we found the web-based course delivery system to be very successful in terms of learning outcomes and student satisfaction.

Woochun Jun has been adopted Web-based Instruction (WBI) in many educational systems. However, due to WBI's lack of face-to-face communication existing in a traditional classroom, their effectiveness is minimal. The finding suggested that WBI provides motivation to students.

To enhance the quality of teaching and learning in the classroom non-traditional strategies such as active, cooperative, collaborative and problem-based learning can be utilized.

II. Need for the Study

The purpose of education is not just making a student literate but adds rationale thinking, knowledgeablity and self sufficiency. When there is a willingness to change, there is hope for progress in any field. Creativity can be developed by innovative teaching methods which should benefits both students and teachers. We should convert the education into a sport and learning process has to generate interest in the students and motivate them and to retain the knowledge.

Traditional classrooms are space bound and learning occurs within a physical boundary. The source of content is shift from the textbook and the teacher to a student. The teacher is the sender or the source, the educational material is the information or message, and the student is the receiver of the information. In terms of the delivery medium, the educator can deliver the message via the "chalk-and- talk" method and overhead projector (OHP) transparencies. Traditional approach in classroom is of limited effectiveness in both teaching and learning. In such a lecture students assume a purely passive role and their concentration fades off after 15-20 minutes.

Web Based instruction may be employed to promote experiential learning. It offers a new sensibility and means of learning. Another advantage of web based instruction is that students creates interest and motivated for self learning and active involvement in learning. Since knowledge is no longer an end but a means to creating better problem solvers and encourage lifelong learning. Web based instruction is becoming increasingly popular in educational institutions as a tool to address the inadequacies of traditional teaching. The students are able to learn better since they use multiple sensory modalities, which would make them more motivated to pay more attention to the information presented and retain the information better.

Jeffries PR. (2001) had conducted a study to compare the effectiveness of both an interactive, multimedia CD-ROM and a traditional lecture for teaching oral medication administration to nursing students. The groups were similar in their ability to demonstrate the skill correctly. Importantly, time on task using the CD-ROM was less, with 96% of the learners completing the program in 2 hours or less, compared to 3 hours of class time for the lecture group

Sherman H, Comer L, Putnam L, Freeman H(2012) had conducted a comparative study between blended versus lecture method on Critical care pharmacology education for the nurses orienting to specialized areas. The findings determined no significant differences in cognitive learning outcomes or learner satisfaction between blended versus lecture format.

Jang KS, Hwang SY, Park SJ, Kim YM, Kim MJ(2005)conducted the study to examine the effects of a Web-based teaching method (versus a traditional lecture method) on undergraduate nursing students' learning of electrocardiography (ECG). No significant differences were found between the two groups in level of motivation or satisfaction with learning. The self-directed, Web-based ECG learning program appears to be effective in helping nursing students to interpret ECG recordings

III. Objective

To determine the effectiveness among two instructional methods namely web based and traditional method

IV. Hypothesis

There is a difference between web based and traditional method of instruction on the knowledge and skill of obstetrical palpation

V. Assumption

Traditional method is widely used teaching method in Schools and Colleges

VI. Research Design

Quantitative approach – Quasi experimental Post test only Design

Samples	Manipulation	Post test
Group I (R)	X1	O1
Group II (R)	X2	O2

Group I – Web based
Group II – Traditional
X1 – Power point and Video related to obstetrical palpation
X2 – Lecture by using black board & chart and demonstration of obstetrical palpation with dummy
O1 – Post test
O2 – post test

6.1. Setting

The study was conducted in Saveetha College of Nursing, Saveetha University and the skill was assessed in Mirsahibpet health centre

6.2. Population

All B.Sc (Nursing) II year students

6.3. Sample

B.Sc(Nursing) II Year students of Saveetha College of Nursing, Saveetha University

6.4. Sample Size

The sample size consists of 15 in each group

6.5. Sampling Technique

Random sampling technique by lottery method

6.6. Criteria for Selection of sample

6.6.1. Inclusion Criteria

B.Sc(N) II year students who were studying in Saveetha College of Nursing

Students who were willing to participate in the study

6.6.2. Exclusion Criteria

Students who were absent on the day of data collection

6.7. Data Collection Procedure

Group I

Lesson plan was prepared on obstetrical palpation and the content was prepared in PPT format along with video on obstetrical palpation and uploaded in the web page. Students had been informed the availability of PPT and Video. 2 hours time was given to go through the content and clarified the doubt through web. One day time was given to watch the video and clarified the doubt

Group II

Lesson plan was prepared on obstetrical palpation and the lesson was taken by lecture method using black board and chart for 30 minutes. Students clarified their doubts and followed by demonstrated the obstetrical palpation with dummy in the OBG lab for 15 minutes.

Post Test

Knowledge was assessed using Structured Multiple Choice Questionnaire for both the groups on the same day and time by 2 different faculties for 10 minutes.

Group I

Knowledge was assessed by using Structured Multiple Choice Questionnaire. It was uploaded in the web page and 10 minutes time was given for the students to answer through web. Skill was assessed after a day at Mirsahibpet health centre using Observation checklist with rating scale by 2 faculty members.

Group II

Knowledge was assessed immediately after the lecture using Structures Multiple Choice Questionnaire and skill was assessed on the next day at Mirsahibpet health centre by 2 faculty members using Observation checklist with rating scale.

6.8. Statistical Methods used

Descriptive Statistics

Mean and Standard Deviation.

Inferential Statistics

Student 't' test to compare the skill in performing obstetrical palpation between web based and traditional method of learning

VII. Results

Group		N	Mean	SD	Standard Error mean	Standard Error difference	Independent t test (2- tailed)
Knowledge	**Web based**	15	8.4	1.183	0.306	0.644	3.104 P<0.01 S
	Traditional	15	6.4	2.197	0.567		
Skill	**Web based**	15	24.33	12.551	3.241	3.586	0.985 P>0.01 NS
	Traditional	15	27.87	5.951	1.536		

This table shows the effectiveness and compares the traditional and web based approached in teaching of obstetrical palpation. Knowledge on obstetrical palpation among students in web based group is effective in the mean score of 8.4 with 1.183 standard deviation and the standard error mean was 0.306 than that of students in the traditional group. Student t test also revealed that there is a significant difference between the traditional and Web based teaching at the level of $P<0.01$.

Skill on obstetrical palpation revealed that both the group have their ability to demonstrate the skill but the ability to do the obstetrical palpation correctly was higher among students in traditional group in the mean score of 27.87 with 5.951 standard deviation and standard error mean was 1.536 but there was no significant difference between the traditional and Web based teaching to teach obstetrical palpation at the level of $P<0.01$.

The self directed web based teaching was effective in helping nursing students to gain knowledge on obstetric palpation but not much effective to teach skill because students may not get the feeling by sense of touch to identify the fetal parts but they have the exposure to read the content and watch the video again and again.

VIII. Discussion

The purpose of this study was to compare the effectiveness of Web-based and traditional instruction to teach the knowledge and skill of obstetrical palpation among basic B.Sc(N) II year students. The main difference between the two instructional methods was that students in the web based group were received the lesson in the web for that lesson plan on obstetrical palpation was prepared in PPT format along with video on obstetrical palpation and uploaded in the web page. The students in the traditional group received the same lesson by lecture method using black board and chart followed by demonstration of the obstetrical palpation with dummy in the OBG lab. The results indicated that knowledge on obstetrical palpation among students in web based group is effective than the traditional group students. These results are consistent with previous research; Jang KS et.al (2005) who had conducted the study to examine the effects of a Web-based teaching method versus a traditional lecture method on undergraduate nursing students' learning of electrocardiography (ECG). The self-directed, Web-based ECG learning program appears to be effective in helping nursing students to interpret ECG recordings. Students in the web based group had the opportunity to read and understand the content by themselves and feel free to clarify the doubt but whereas in lecture method students may hesitate to ask doubt in front of others. The duration of student and teacher interaction is less in lecture method instead in web based the student - teacher interaction is more.

Skill on obstetrical palpation revealed that ability to do the obstetrical palpation skillfully was higher among students in traditional group than the web based group of students but there was no significant difference between the traditional and Web based teaching. The students had the opportunity to watch the video again and again which help to register the steps of palpation in their mind but that may not get the feeling by sense of touch to identify the fetal parts whereas in lecture method the teacher witnessed the fetal parts which enable the students to understand better.

IX. Conclusions

This evaluation and assessment was an initial effort to compare the new teaching methodologies related to obstetrical palpation. The combination of these two methods of education may further enhance the student's skill acquisition level.

References

[1] J. Michael Weber and Ron Lennon, Compare the effectiveness of a Web-based course delivery system to a traditional course delivery system, The Journal of Educators Online, July 2007, Volume 4, Number 2,

[2] JeffriesP.R. , Computer versus lecture: a comparison of two methods of teaching oral medication administration in a nursing skills laboratory, The Journal of Nursing Education. 2001 Oct;40(7):323-9

[3] Sherman H, Comer L, Putnam L, Freeman H, Blended versus lecture learning:outcomes for staff development, Journal of Nurses Staff Development. 2012 July;28(4):186-90

[4] Jang KS, Hwang SY, Park SJ, Kim YM, Kim MJ, Effects of a Web-based teaching method on undergraduate nursing students' learning of electrocardiography, The Journal of Nursing Education. 2005 Jan;44(1):35-9

[5] Keegan RD, Brown GR, Gordon A, Use of a simulation of the ventilator-patient interaction as an active learning exercise: comparison with traditional lecture, Journal Medical Education. 2012 Winter;39(4):359-67.

[6] Reime MH, Harris A, Aksnes J, Mikkelsen J. The most successful method in teaching nursing students infection control - E-learning or lecture, Nurse Education Today. 2008 Oct;28(7):798-806.

[7] Bloomfield J, Roberts J, While A, The effect of computer-assisted learning versus conventional teaching methods on the acquisition and retention of hand washing theory and skills in pre-qualification nursing students, International Journal of Nursing Students. 2010 Mar;47(3):287-94.

[8] Engum SA, Jeffries P, Fisher L., Intravenous catheter training system: computer-based education versus traditional learning methods. Am Journal of Surgery. 2003 Jul;186(1):67-74

[9] Anderson ET, Mercer ZB, Impact of community health content on nurse practitioner practice: a comparison of classroom and web-based teaching. Nursing Education Perspectives. 2004 Jul-Aug; 25(4):171-5