Effect_Web-based_Learning_Midwifery_Student_IJHMS_2021-(9).pdf

by

Submission date: 17-Jun-2023 11:29AM (UTC+0700)
Submission ID: 2117655153
File name: Effect_Web-based_Learning_Midwifery_Student_IJHMS_2021-(9).pdf (192.85K)
Word count: 3494
Character count: 19516

How to Cite
Hardianti, S., Syarif, S., Ahmad, M., Niswar, M., Stang, S., & Mastuti, N. L. P. H. (2021). The effect of web-based learning media towards the skills of the second stage of childbirth care practicum in D-III midwifery students. *International Journal of Health & Medical Sciences*, *4*(2), 226-231. https://doi.org/10.31295/ijhms.v4n2.1713

The Effect of Web-Based Learning Media towards the Skills of the Second Stage of Childbirth Care Practicum in D-III Midwifery Students

Sitti Hardianti
Student of Master Midwifery Graduate School of Hasanuddin University, Indonesia
Corresponding author email: hardiantiidian@yahoo.com

Syafruddin Syarif
Electrical Engineering Study Program, Hasanuddin University, Indonesia
Email: Syafruddin.s@eng.unhas.ac.id

Mardiana Ahmad
Midwifery Study Program, Hasanuddin University, Indonesia
Email: mardianaahmad@pasca.unhas.ac.id

Muhammad Niswar
Electrical Engineering Study Program, Hasanuddin University, Indonesia
Email: niswar@unhas.ac.id

Stang
Statistics Study Program, Faculty of Public Health, Hasanuddin University, Indonesia
Email: stangbios@gmail.com

Ni Luh Puti Herli Mastuti
Faculty of Medicine, Brawijaya University, Indonesia
Email: herlimastuti@yahoo.co.uk

Abstract---*The stage of the expulsion of a baby starting from complete dilation until a baby is born is the second stage of labor. The study aims to analyze differences in skills section the second stage of labor care practicum before and after administration of web+demonstrative and conventional learning media control and intervention groups. The researcher used a Quasi Experiment with one group pretest-posttest design and a hybrid method. Purposive sampling is a sampling technique used with 60 samples at Stikes Nani Hasanuddin in April - June. Data analysis used the Wilcoxon test. The results of statistical tests in the intervention group showed skill sections were significantly different, sections 3, 4, 5, and 6 which indicate majority skills increase in sections 3 and 6 with a p-value of Wilcoxon test results (p = 0.005 and <0.001) < (0.05), there is significant difference sections intervention group. The Control group shows skills section is significantly different before and after conventional media learning, section 6 (birth assistance) with p-value = 0.002, means section 6 (delivery assistance) has differences before and after conventional learning, 5 skills sections show no difference. Web-based learning media+demonstrations have a higher effect on improving skills section the second stage of labor.*
Keywords---*learning media, second stage labor care, skills, web.*

ISSN 2632-9433
Submitted: 09 May 2021 |Revised: 18 June 2021 | Accepted: 27 July 2021

Introduction

Technology is inseparable from human life at this time, this is because technology has affected every human life. One form of technology development is the technology of the internet (Saputra et al., 2018). No one can deny that the influence of technology is very useful for human life. Now, almost all countries have sophisticated technology and it is used also by the teachers to make the time more effective in teaching toward the students, and the teachers in the school use web-based learning media. Web-based learning media developed it included on the category is valid, practical, and effective. Web-based learning media effectively to improve student learning outcomes. It is recommended for the school (Principal), further optimize and complete supporting facilities and infrastructure for web-based learning media. For teachers, it should implement web-based learning media on other subjects, to improve student learning outcomes (Saputra et al., 2018).

Nowadays, the learning process is the most important strategy in education. Most educators try to find the best learning process to make the students feel easy in understanding the knowledge which transfers by the educators. Knowledge can increase or increase with the presence of information using various kinds of media (Parsa et al., 2008). The learning process is an activity in educational institutions that aims to provide a better influence on the knowledge and skills of students to achieve the expected goals. In the learning process, it is expected for educators to provide facilities and deliver material that students can understand (Astuti et al., 2017).

One of the learning processes which are applied by educators is web-based learning media (Bizer et al., 2009; Grosseck, 2009; Gruber, 2008). The educator assumes that web-based learning media is one of the efforts to encourage student's interest in learning. Web-based learning media is computer-based electronic learning as a simulation medium to support a conventional practicum system consisting of text, hypertext, images, sound, animation, video, and graphics (Hermansyah et al., 2017; Mahnun, 2012; Khoiriah, 2016; Utami et al., 2017). In addition, Leod assumes that this is consistent with the research which found that media such as videos and animations help students get more detailed information so that the capacity to be stored in brain memory also increases. Furthermore, Mahun and Toffano emphasize that learning media is used to connect the sender's message toward the receiver, so it can stimulate the thoughts, feelings, concerns, and the interests of students to learn.

Web-based learning media that makes use of information and communication technology, greatly helping teachers in carrying out the activities by learning. In addition, students can also be helped by easy access and learning activities using the internet (Suarsana et al., 2018; Zhang et al., 2015; Dabbagh & Kitsantas, 2012). so the tools in the form of modules, job sheets, models, or other learning tools can be put into E-Learning, to help students understand the lessons easily and can be learned by students whenever and wherever (Dewy et al., 2016). In learning media one of the most renowned is hybrid learning or blended learning. This learning media is used by combining two learning methods between electronic learning and face-to-face learning. The term "blended learning/hybrid learning" was initially vague, encompassing a wide variety of technologies and pedagogical methods in varying combinations (some making no use of technology whatsoever). In 2006, the term became more concrete with the publication of the first *Handbook of Blended Learning* by Bonk and Graham. Graham challenged the breadth and ambiguity of the term's definition and defined "blended learning systems" as learning systems that "combine face-to-face instruction with computer-mediated instruction (Bonk, 2006).

Blended learning is highly context-dependent, therefore a universal conception of it is difficult (Moskal et al., 2013). While Oliver and Trigwell claim that some reports have claimed that a lack of consensus on a hard definition of blended learning has led to difficulties in research on its effectiveness. Furthermore, Charles, Wendy, and Buckley explain a well-cited 2013 study that broadly defined blended learning as a mixture of online and in-person delivery where the online portion effectively replaces some of the face-to-face contact time rather than supplementing.

Based on the three explanations above, the researcher concludes that blended learning is one of the learning methods to improve the student's skill in understanding a learning material. By this learning method, the students can stimulate their brain to understand deeply and to the difference between electronic learning and face-to-face learning.

In the end, Hybrid Learning or also known as Blended Learning is a combination of e-learning based learning methods (electronic learning) with face-to-face learning methods or conventional methods (Baragash and Al-Samarraie, 2018; Fauzan, 2017). Ana Sutisna suggests that Hybrid learning is a learning method that combines two or more methods and approaches in learning to achieve the objectives of the learning process (Sutisna, 2016).

The second stage is also called the expulsion stage because of the strength and force of the mother pushing the fetus out until it is born. Learning is done through the practicum to equip students with skills that can be used in the field (Bahr et al., 1997; Wanzel et al., 2002). Practical learning aims to give students a learning experience in terms of applying theory as training material and preparation for the application of clinical practice, bringing students to the formation of attitudes, skills, ability to work together, and creativity in receiving knowledge. During clinical

practice, midwifery students apply theory, develop skills and build their competencies and develop professional identities (Burns & Paterson, 2005; Khomeiran et al., 2006; Puspitasari, 2018; Ulrich, 2004). Based on the description above, the researcher wanted to know the difference between the Skills of the Second Stage of Childbirth Care Practicum before and after the provision of Web-Based Learning Media + demonstration and conventional media in midwifery D-III students.

Research Methods

The research was carried out in April-June 2021 with ethical approval recommendations number: 3856/UN4.14.1/TP.02.02/2021 with the research location at the Laboratory of Midwifery Study Program D-III Nani Hasanuddin Makassar. The research method used in this study was a Quasi-Experimental design with a non-equivalent control group design. The Researcher analyzed the differences in the practical skills section of the second stage of childbirth before and after being given treatment between the intervention group and the control group. The research was carried out from April to June 2021. The sample in this study was midwifery DIII students in the fourth semester at Stikes Nani Hasanuddin Makassar, sampling using the purposive sampling technique. The data obtained were collected using a checklist as an observation sheet when performing the second stage of labor skills such as name, id student number, class, and grades when carrying out the second stage of childbirth care practicum, then data analysis was carried out using the *Wilcoxon* test.

Result and Discussion

Table 1
Differences in the skills section of the second stage of childbirth care practicum before and after the provision of conventional learning media to midwifery students

Skills Section	Pre-post	n	*p-value**
1. Mention the Signs and Symptoms	Decrease	0	1.000
	Increase	0	
	Stay	30	
2. Preparing for Help	Decrease	3	0.739
	Increase	3	
	Stay	24	
3. Ensuring Complete Opening and Fetal State	Decrease	3	0.206
	Increase	7	
	Stay	20	
4. Preparing Mother and Family	Decrease	4	0.705
	Increase	3	
	Stay	23	
5. Preparation for Childbirth	Decrease	3	0.366
	Increase	5	
	Stay	22	
6. Childbirth Assistance	Decrease	0	0.002
	Increase	10	
	Stay	20	

Wilcoxon test

Table 1. Shows the results of the Wilcoxon test in the control group with several skills sections having a value (p>0.05), namely in sections 1, 2, 3, 4, and 5 tend to show there is a difference between pre and post but not significant. Only section 6 (Aid for childbirth) shows that the minority experienced an increase in skills.

Table 2
Differences in the skills section of the second stage of childbirth practicum before and after giving web-based learning media to midwifery students

Skills Section	Pre-post	n	*p-value**
1. Mention the Signs and Symptoms	Decrease	0	1.000
	Increase	0	
	Stay	30	
2. Preparing for Help	Decrease	4	0.090
	Increase	10	
	Stay	16	
3. Ensuring Complete Opening and Fetal State	Decrease	3	0.005
	Increase	15	
	Stay	12	
4. Preparing Mother and Family	Decrease	1	0.034
	Increase	7	
	Stay	22	
5. Preparation for Childbirth	Decrease	4	0.033
	Increase	12	
	Stay	14	
6. Childbirth Assistance	Decrease	0	<0.001
	Increase	18	
	Stay	12	

Wilcoxon test

Table 2. This shows that the parts of skills that are significantly different before and after giving web-based learning media + demonstration with test values ($p < 0.05$) are sections 3, 4, 5, and 6 which indicate there is a significant difference between giving web media + demonstration to the second stage of labor skills.

Discussion

Learning achievement is proof of learning success or a person's ability to carry out learning activities following the weights achieved. According to Maksudi et al. (2016), learning outcomes are the results shown from an interaction of learning acts and are usually indicated by the test scores given. Assessment of learning outcomes is expected to reflect changes in behavior, both with dimensions of creativity (cognitive), taste (affective), and intention (psychomotor) (Yuliati et al., 2011). The results of statistical tests in the control group showed that the skills section that was significantly different before and after conventional media learning was only part 6 (birth assistance) with the p-value of the Wilcoxon test result being 0.002, meaning that only part 6 (delivery assistance) had differences before and after learning. Conventionally, 5 sections of skills showed no difference between pre and post with values ($p > \alpha$ 0.05). This was because the control group was only explained without any given modules that could be re-learned before performing skills in the second stage of labor. The test results in the intervention group showed that the skills section that was significantly different before and after learning web media and demonstrations were sections 3, 4, 5, and 6. $p=0.005$ and $<0.001) < \alpha$ (0.05) so that there are significant differences in the parts before and after learning through web media and demonstration methods.

Based on the results of the research conducted, it is known that the control group using conventional learning media got a value ($p>0.05$), which means that there was no significant difference in the skills of the control group students before and after the provision of conventional learning media (Roberts & Hanson, 2007; Albers et al., 2005; Leveno et al., 2016). This is caused by the control group who was only explained without any given modules that should be learned before doing the skill performance in the second stage of childbirth. Meanwhile, the students who use web-based learning media + demonstration got the test score ($p<0.05$), which means that there was a significant difference in skills before and after the provision of web-based learning media. It can be described that the intervention of web-based learning media influences improving the second stage of care skills. This study is following the results conducted by Maksudi et al. (2016); Rahmatullah (2011); Priyanto (2009); Sugiyanto et al. (2018), which state that learning using animation and video is better than classes that do not provide technology-

based learning media. The researcher assumes that web-based learning media can be used to improve the student's skills because it can make it easier for students to learn the procedures before performing in the midwifery laboratory. In addition, having an image display in accordance with work procedures and audiovisual components is very helpful for students to learn, remembering the lessons that have been seen and given. In line with the results of research conducted by Lisa et al. (2019), showed that there were significant differences in delivery care skills in the provision of web-based learning media with conventional learning media.

Conclusion

This study concludes that web-based learning media and demonstration methods for the second stage of labor can improve the skills section of the second stage of labor in midwifery DIII students.

Acknowledgments
The researcher would like to express her thankfulness to all the staff and lecturers who helped the researcher by permitting her to do her research from April to June toward the midwifery student D-III at Stikes Nani Hasanuddin Makassar.

References

Albers, L. L., Sedler, K. D., Bedrick, E. J., Teaf, D., & Peralta, P. (2005). Midwifery care measures in the second stage of labor and reduction of genital tract trauma at birth: a randomized trial. *Journal of midwifery & women's health*, *50*(5), 365-372. https://doi.org/10.1016/j.jmwh.2005.05.012

Astuti, W. D., Listyorini, D., & Dahlia, D. (2017). Pengembangan Virtual Laboratory Berbasis Penelitian Dna Barcoding Durian Merah. *Jurnal Pendidikan: Teori, Penelitian, dan Pengembangan*, *2*(12), 1603-1605.

Bahr, J., Klingler, H., Panzer, W., Rode, H., & Kettler, D. (1997). Skills of lay people in checking the carotid pulse. *Resuscitation*, *35*(1), 23-26. https://doi.org/10.1016/S0300-9572(96)01092-1

Baragash, R. S., & Al-Samarraie, H. (2018). An empirical study of the impact of multiple modes of delivery on student learning in a blended course. *The Reference Librarian*, *59*(3), 149-162.

Bizer, C., Lehmann, J., Kobilarov, G., Auer, S., Becker, C., Cyganiak, R., & Hellmann, S. (2009). Dbpedia-a crystallization point for the web of data. *Journal of web semantics*, *7*(3), 154-165. https://doi.org/10.1016/j.websem.2009.07.002

Bonk, C. J., & Graham, C. R. (2012). *The handbook of blended learning: Global perspectives, local designs*. John Wiley & Sons.

Burns, I., & Paterson, I. M. (2005). Clinical practice and placement support: supporting learning in practice. *Nurse Education in Practice*, *5*(1), 3-9. https://doi.org/10.1016/j.nepr.2004.02.001

Dabbagh, N., & Kitsantas, A. (2012). Personal Learning Environments, social media, and self-regulated learning: A natural formula for connecting formal and informal learning. *The Internet and higher education*, *15*(1), 3-8. https://doi.org/10.1016/j.iheduc.2011.06.002

Dewy, M. S., Ganefri, G. S., & Kusumaningrum, I. (2016). Pengembangan Model Pembelajaran Berbasis Produk Pada Mata Kuliah Praktek Elektronika Daya. *VOLT: Jurnal Ilmiah Pendidikan Teknik Elektro*, *1*(1), 15-28.

Fauzan, F. A. (2017). Hybrid Learning sebagai Alternatif Model Pembelajaran.

Grosseck, G. (2009). To use or not to use web 2.0 in higher education?. *Procedia-Social and Behavioral Sciences*, *1*(1), 478-482. https://doi.org/10.1016/j.sbspro.2009.01.087

Gruber, T. (2008). Collective knowledge systems: Where the social web meets the semantic web. *Journal of web semantics*, *6*(1), 4-13. https://doi.org/10.1016/j.websem.2007.11.011

Hermansyah, H., Gunawan, G., & Herayanti, L. (2017). Pengaruh penggunaan laboratorium virtual terhadap penguasaan konsep dan kemampuan berpikir kreatif siswa pada materi getaran dan gelombang. *Jurnal Pendidikan Fisika dan Teknologi*, *1*(2), 97-102.

Khoiriah, D. S. (2016). Pengaruh model pembelajaran kooperatif tipe team game tournament (tgt) terhadap pembentukan nilai-nilai kerjasama dalam pembelajaran permainan hoki. *Jurnal Pendidikan Jasmani dan Olahraga*, *1*(1), 27-37.

Khomeiran, R. T., Yekta, Z. P., Kiger, A. M., & Ahmadi, F. (2006). Professional competence: factors described by nurses as influencing their development. *International nursing review*, *53*(1), 66-72.

Leveno, K. J., Nelson, D. B., & McIntire, D. D. (2016). Second-stage labor: how long is too long?. *American journal of obstetrics and gynecology*, *214*(4), 484-489. https://doi.org/10.1016/j.ajog.2015.10.926

Lisa, U. F., Hernowo, B. S., & Anwar, R. (2019). Pengaruh Penggunaan Media Video pada Pembelajaran Praktikum terhadap Pengetahuan dan Keterampilan Mahasiswa dalam Penanganan Distosia Bahu di Universitas Ubudiyah Indonesia. *Journal Of Healthcare Technology and Medicine*, *2*(1), 46-58.

Mahnun, N. (2012). Media pembelajaran (kajian terhadap langkah-langkah pemilihan media dan implementasinya dalam pembelajaran). *An-Nida'*, *37*(1), 27-34.

Maksudi, H., Wiharna, O., & Rohendi, D. (2016). Pengaruh Penggunaan Multimedia Animasi Pada Pembelajaran Kompetensi Dasar Memperbaiki Sistem Starter Terhadap Peningkatan Hasil Belajar Siswa Smk. *Journal of Mechanical Engineering Education*, *3*(2), 174-182.

Moskal, P., Dziuban, C., & Hartman, J. (2013). Blended learning: A dangerous idea?. *The Internet and Higher Education*, *18*, 15-23. https://doi.org/10.1016/j.iheduc.2012.12.001

Parsa, P., Kandiah, M., Zulkefli, N. M., & Rahman, H. A. (2008). Knowledge and behavior regarding breast cancer screening among female teachers in Selangor, Malaysia. *Asian Pacific journal of cancer prevention*, *9*(2), 221-228.

Priyanto, D. (2009). Pengembangan multimedia pembelajaran berbasis komputer. *INSANIA: Jurnal Pemikiran Alternatif Kependidikan*, *14*(1), 92-110.

Puspitasari, L. (2018). Manfaat Penguatan Otot Abdomen Dan Pemijatan Lumbal Terhadap Percepatan Proses Persalinan Kala I. *Jurnal Kebidanan*, *10*(01), 17-27.

Rahmatullah, M. (2011). Pengaruh pemanfaatan media pembelajaran film animasi terhadap hasil belajar. *Jurnal Penelitian Pendidikan*, *12*(1), 178-186.

Roberts, J., & Hanson, L. (2007). Best practices in second stage labor care: Maternal bearing down and positioning. *Journal of Midwifery & Women's Health*, *52*(3), 238-245. https://doi.org/10.1016/j.jmwh.2006.12.011

Saputra, H. D., Nasrun, N., & Wakhinuddin, W. (2018). Development of Web-Based Learning Media in Vocational Secondary School. *VOLT: jurnal ilmiah Pendidikan teknik elektro*, *3*(1), 37-41.

Suarsana, I. M., Mahayukti, G. A., Sudarma, I. K., & Yoga, I. N. B. A. (2018). Development of interactive mathematics learning media on statistics topic for hearing-impaired student. *International Research Journal of Engineering, IT and Scientific Research*, *4*(6), 55-66.

Sugiyanto, R., Utami, A., & Abeng, A. T. (2018). Pembuatan Media Pembelajaran Berbasis Vidio untuk Guru Sekolah Dasar Kota Palangka Raya. *AMALIAH: Jurnal Pengabdian Kepada Masyarakat*, *2*(2), 196-201.

Sutisna, A. (2016). Pengembangan model pembelajaran blended learning pada pendidikan kesetaraan program paket c dalam meningkatkan kemandirian belajar. *JTP-Jurnal Teknologi Pendidikan*, *18*(3), 156-168.

Ulrich, S. (2004). First birth stories of student midwives: Keys to professional affective socialization. *Journal of midwifery & women's health*, *49*(5), 390-397. https://doi.org/10.1016/j.jmwh.2004.04.013

Utami, I. S., Septiyanto, R., Wibowo, F. C., & Suryana, A. (2017). Pengembangan STEM-A (science, technology, engineering, mathematic and animation) berbasis kearifan lokal dalam pembelajaran fisika. *Jurnal Ilmiah Pendidikan Fisika Al-BiRuNi*, *6*(1), 67-73.

Wanzel, K. R., Hamstra, S. J., Anastakis, D. J., Matsumoto, E. D., & Cusimano, M. D. (2002). Effect of visual-spatial ability on learning of spatially-complex surgical skills. *The lancet*, *359*(9302), 230-231. https://doi.org/10.1016/S0140-6736(02)07441-X

Yuliati, D. I., Yulianti, D., & Khanafiyah, S. (2011). Pembelajaran fisika berbasis hands on activities untuk menumbuhkan kemampuan berpikir kritis dan meningkatkan hasil belajar siswa SMP. *Jurnal Pendidikan Fisika Indonesia*, *7*(1).

Zhang, X., Gao, Y., Yan, X., de Pablos, P. O., Sun, Y., & Cao, X. (2015). From e-learning to social-learning: Mapping development of studies on social media-supported knowledge management. *Computers in Human Behavior*, *51*, 803-811. https://doi.org/10.1016/j.chb.2014.11.084

Effect_Web-based_Learning_Midwifery_Student_IJHMS_2021-(9).pdf

ORIGINALITY REPORT

23%	23%	7%	8%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	jurnal.untirta.ac.id Internet Source	8%
2	wikizero.com Internet Source	6%
3	core.ac.uk Internet Source	1%
4	www.atlantis-press.com Internet Source	1%
5	Submitted to Binus University International Student Paper	1%
6	ijersc.org Internet Source	1%
7	journal.unj.ac.id Internet Source	1%
8	id.123dok.com Internet Source	<1%
9	jppipa.unram.ac.id Internet Source	<1%

10	Submitted to Badan PPSDM Kesehatan Kementerian Kesehatan Student Paper	<1 %
11	eprints.uny.ac.id Internet Source	<1 %
12	Puspita Ratna Susilawati. "Implementation of Web-Based Virtual Laboratory Media in Learning", TAMAN VOKASI, 2019 Publication	<1 %
13	digilib.unimed.ac.id Internet Source	<1 %
14	ejournal.undiksha.ac.id Internet Source	<1 %
15	journal.walisongo.ac.id Internet Source	<1 %
16	www.science.gov Internet Source	<1 %
17	repository.uin-suska.ac.id Internet Source	<1 %
18	repository.upi.edu Internet Source	<1 %

Exclude quotes	On	Exclude matches	< 5 words
Exclude bibliography	On		