

Original Research

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The Effect of Blended Learning Approach on Student Satisfaction in the Learning Process at Master Degree Nursing Program in Indonesian Context

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ABSTRACT

Nursing education at post graduate degree aims to produce graduates with the essential competencies as researchers which are closely related to the capability of implementing information technology which are in the global health era. However, the implementation of *blended learning* which combines *e-learning* approach into the learning process has characterised with various challenges for students and lecturers. These study aims are to identify the effect of the blended learning approach to student satisfaction on the learning process and the quality of learning process in the master's degree nursing program in Indonesian context.

Method: The study was conducted in 2018, the quantitative approach has been utilized. Participants in this study are 88 post graduate nursing students who were selected with purposive sampling. Data collection was conducted through survey and analysis correlational with *Pearson* test.

Finding of the study has indicated that **the Blended learning approach** as indicated in: Quality of Learning Process (QLP) in terms of Student Engagement and Accessibility & interactivity on average is 83% favourable and 17% unfavourable; and QLP from students' perspective is 58, 96% favourable and 41.04 % unfavourable. **Student satisfaction** with blended learning process on average is 54.75% favourable and 45.25% unfavourable. The results of the Pearson analysis have shown that there is a very weak correlation between the Blended Learning approach and **Student Satisfaction** with correlation value of 0.180 and Significance value of 0.864. In this case, almost all participants stated that blended learning is essential as it makes the learning process more innovative and it motivates independent learning.

Introduction

Nurse competency development at master degree level is important because of nurses' role and function as educators for nursing staff and the community, as health care providers at the professional level and, as managers in order of health or nursing care services and, as nursing or health researchers who aim to answer the demands of the needs of society in the global era.

The Faculty of Nursing, Universitas Padjadjaran as the second oldest center for Master Degree Nursing Program in Indonesia is demanded to produce high-quality nursing human resources. This is manifested in the development of Master Degree Nursing Program which has seven concentrations include: Community Nursing, Medical Surgical Nursing, Pediatric Nursing, Mental Health Nursing, Nursing Management, Maternity Nursing and Critical Care Nursing. In this regards, the master's degree program with a critical care nursing concentration, currently in Indonesia is only available at UNPAD.

Indonesia has a high need for health services, demographic conditions, socio-cultural changes and geographical positions have contributed to this high demand for health services of Indonesian society. Demographically, Indonesia has a high population with the highest population density in Java and Bali.

The demographic factors have indicated the presence of pressure on the Indonesian health care system, with a population of almost 263,991 million in 2017 (UNDESA, 2017). Those total population, has placed Indonesia as the 4th most populous country in the world (World Bank Group, 2017). This high population number has related to the increasing complexity of health problems at various ages in Indonesian society. This can be seen in the complexity of children's health problems, maternity cases, community health problems and the high number of cases related to mental health disorders. There are also increasing complexity related to critical patient's conditions and those with emergency cases.

Geographical position and climatic conditions have put Indonesia at risk for

experiencing natural disasters. Past experience has shown that natural disasters had a high impact on the needs of the Indonesian people for health services, especially emergency services. Nurses, as health professionals with almost 60% of the total health workers in Indonesia, have a significant role to contribute in reducing these health care problems presence in the society.

The complexity of health problems causes the importance of Indonesian society to have resilient, professional and quality health service resources in accordance with the demands of community in the global era. Nursing education sector at master degree level has the potential to produce a high-quality, professional nurses and resilient human resources.

In this study, the competencies' achievement for nursing research and; the critical nursing subject be obtained through a blended learning approach. The blended learning approach merges conventional learning processes in the classroom and e-learning process. Although blended learning approach has been widely used especially in developed countries and has shown many benefits, the implementation of a blended learning approach is expected to improve the quality of human resources especially nurses at the professional level. This study aims to identify the effect of the blended learning approach on student satisfaction in the learning process in the Master Degree Nursing Program in Indonesian context.

Method

This is a correlation study with a quantitative approach that aims to identify the effect of learning methods with a blended learning approach to the quality of the learning process in Master Degree Nursing Program. The population in this study is all nursing students in the Master Degree Nursing Program who were undergoing blended learning. Students who were sampled in the study were 74 students who were taking nursing research courses for research competencies and 14 students who were taking critical nursing courses 2. The total number of samples in this study was 88 respondents.

Researchers have provided information about the course of the research and provided opportunities for participants to ask questions. Willingness of participants to participate is voluntary. Participants who agree to participate in the study were required to sign an informed consent. Participants were given a questionnaire related to: the blended learning approach in term of accessibility and interactivity and; student satisfaction. The instruments utilized in this study were prepared by researchers, derived from the concepts underlying this study related to blended learning and student satisfaction.

Validity

The research instrument was tested for validity using the product-moment analysis test. This research instrument consisted of 3 domains, each domain consisting of 14 question items. Test the validity of the question items in domain 1, showing all question items have a value of sig (2 tailed) <0.05 . This shows the question item in domain 1 is valid. Test the validity of the question items in domain 2, showing the question items no. 1, 4 and 9 have a sig (2 tailed) value >0.05 . This shows the items 1,4 and 9 are invalid, so the items are removed. Test the validity of the question items in domain 3, showing the question item at number 9 has a value of sig (2 tailed) >0.05 . This shows item question 9 is invalid, so item number 9 is omitted.

Reliability

The instrument in this study consisted of 3 domains. The research instrument was tested for reliability by using the Cronbach alpha coefficient. Cronbach's alpha values in each domain are as follows: domain 1 (0.630), domain 2 (0.932), and domain 3 (0.955). Cronbach alpha value in each domain shows a value greater than ($>$) from 0.6. This shows that the research instrument is reliable.

Statistic analysis

To determine the type of statistical analysis used, researchers conducted a data normality test

using the Kolmogorov Smirnov test. Normality test on student engagement, student perspective, and student satisfaction were normally distributed (0.076, 0.200, 0.086). The analysis used to see the distribution of data including frequency distribution, percentage and mean of each variable is univariate analysis. The analysis used to see the relationship between independent and dependent variables is the Pearson correlation test.

Results

Based on the results of this study, quantitative data obtained from master degree students in semester 1 and 3 that the majority of participants in this study were 65% women and 35% men. The majority of participants in this study were young adults (24-35 years old). The majority of participants have been exposed to e-learning. Almost all participants used the internet for communication activities (95.4%), for learning processes (95.4%) and for entertainment (93%). The characteristics of the participants in this study are clearly illustrated in table 1.

Table 1. Characteristics of Participants

Participants	(f)	(%)
Gender		
Male	31	35 %
Female	57	65%
Total	88	
Age of participants		
Young Adult (24 – 35)	64	
Adult (36 – 46)	24	
Master of nursing being undertaken (concentration):		
Critical care nursing (semester 3)	14	16 %
Critical care nursing (semester 1)	19	21.6 %
Community Nursing (semester 1)	7	8 %
Medical Surgical Nursing (semester 1)	15	17 %
Mental Health nursing (semester 1)	12	14 %
Nursing Management (semester 1)	10	11 %
Pediatric nursing (semester 1)	6	6.8 %
Maternity nursing (semester 1)	5	5.6 %
Blended learning		
Yes, once in a while	55	74,4%
Yes, several times	19	25,6%
Purpose of using internet		
Communication	84	95.4 %
Learning	84	95,4%
Entertainment	82	93.0 %
Others	8	9.1 %
Utilization of Internet		
Occasionally	11	11.5 %
Frequently	77	87.5 %
Average time spent on Internet (daily)		
1-5 hours	63	71.6 %
6-10 hours	24	27 %
>10 hours	1	1.4 %

Table 2. Quality of the Learning Process and Student Satisfaction

Variables	Median	Min-Max	Favorable		Unfavorable	
			f	%	f	%
Quality of learning process						
Student Engagement	104,00	83-124	87	83 %	1	17 %
Accessability & interactivity						
Student satisfaction	56	33-70	87	83 %	1	17 %

Table 3. Quality of the Learning Process

Component	Median	Min-Max	Standard Deviation	Cut of point	Favorable		Unfavorable	
					f	%	f	%
Behavioral	14	9-18	1,488	12,5	44	50	44	50
Emotional	12	9-15	1,42	10	87	98.8	1	1.2
Disaffection	7,00	4-14	2,087	10	37	42.6	51	57.4
Cognitive	19	15-24	2,01	12,5	42	47.7	46	52.3
Accessibility	24	17-30	2,53	18	36	40.9	52	59.1
Interactivity	27,50	15-36	3,86	24	51	57.4	37	42.6

Table 4. Student Satisfaction

Student Satisfaction	Median	Min-Max	Cut of Point	Favorable		Unfavorable	
				f	%	f	%
Cognitive	12	7-15	9	47	53	41	47
IT	8	3-10	6	40	45	48	55
Behavioral	16	10-20	12	48	55	40	45
Satisfied	20	13-25	15	56	66	32	34
Emotional							

The findings of this study indicate that the blended learning approach as shown in the quality of learning process in terms of student involvement and accessibility and interactivity averaged 83% in the favorable category and 17% in the unfavorable category. The quality of learning process from the perspective of students is 58.96% favorable and 41.04% unfavorable. Student satisfaction with the blended learning process averaged 54.75% favorable and 45.25% unfavorable.

Table 5. Correlation between Blended Learning and Student Satisfaction

Variabel	R	Sig. (2-tailed)	Explanation
Blended Learning	0,180	0,124	Not Significant
Student Satisfaction			

The results of the bivariate analysis between the variables of the blended learning method and the student satisfaction obtained p-values greater than α (p-values > 0.05), this can be interpreted that there is no significant relationship between the two variables. With r-count value of 0.180, it means that the learning method with blended learning has a weak relationship in influencing student satisfactions. The results of the bivariate analysis are clearly illustrated in table 5.

Discussion

The results of quantitative analysis in this study indicate that the learning process with the blended learning approach does not affect student satisfaction in learning, related to nursing research (Nursing research competencies) and critical care nursing 2 which related to competencies in managing an emergency cases. In the context of this study, the quality of the learning process variable shows that student engagement sub-variables can describe 3 scopes, including:

- 1) Behavioral aspects include active behavior using the web for learning, working hard to participate in online learning and most the majority of participants are in a favorable position.
- 2) Emotional aspects describe almost all participants are in a favorable position. These aspects include: curiosity, liking, happy with the use or implementation of blended learning; very interested and want to take advantage of e-learning; satisfied with the method of incorporation in e-learning and conventional learning.
- 3) The dissatisfaction aspect illustrates that most of the participants are in a favorable position, this means that some participants still feel bored and anxious, with the blended learning process.

For accessibility and interactivity subvariables, it shows that less than a portion of the participants is in a favorable position. This subvariable includes: internet access on campus, off campus and access to learning via the internet, the benefits of the e-learning approach, ease of getting feedback.

Furthermore, the student satisfaction variable indicates that some participants are in a favorable position, which means that some participants are satisfied with the blended learning approach. Some others did not feel satisfied with the e-learning methods. Things that are felt are still unsatisfied are especially in aspects related to IT (information technology), namely internet connections and difficult web features.

The results of the bivariate analysis of the learning process with the blended learning approach did not affect student satisfaction in learning related to nursing research (research competencies in nursing) and critical nursing 2 (professional practice competencies) related to emergency nursing competencies. This is due to the fact that the blended learning that is carried out still has the majority (65 % - 70%) composition of learning process with a classical face-to-face approach between lecturers and students and; 30% -35 % those learning process with internet-based, special web, WhatsApp communication applications.

Based on the results of qualitative data, it can be explained that the implementation of blended learning in Master Degree Nursing Program is felt to be very interesting and innovative by most of student, because it is efficient, flexible, overcoming distance and time barriers; giving current competency content which is very useful for the ability of graduates to be able to answer the demands of the times. It is interesting and innovative, because it contains interactions and live discussions, and is also structured so that it motivates independent learning. However, in its implementation there are still many obstacles, especially related to less varied material, difficulty to access the website, difficulty to operate the e-learning programs, lack of interactivity, lack of direct interaction, difficult features and lack of socialization of its use and the great size of the group.

Furthermore, almost all participants stated that blended learning must be developed because it is innovative and because it is needed to build graduate competencies in the present and future era. Some important inputs including e-learning must continue to be developed and applied to the learning process in the Master Degree Nursing Program for all specializations, web pages should be more attractive, programs should be better, web pages must be more accessible and can be accessed through mobile phone properly, there should be special notifications, good Wi-Fi conditions on campus, a computer lab and an IT person in charge.

Conclusions

Based on the results of the study, it can be concluded that the learning process with the Blended Learning approach does not affect Student Satisfaction in learning process related research subjects in nursing and critical nursing 2 which related to the competencies in managing emergency cases. The quality of the learning process with the blended learning approach on student engagement sub-variables shows aspects of dissatisfaction, aspects of behavior including active behavior using the web for learning processes and cognitive aspects of some participants are in a favorable position. Whereas the accessibility and interactivity sub-variable shows that less than a part is in a favorable position. Student satisfaction variable shows that some participants are in a favorable position which means that some participants are satisfied with the blended learning approach.

The development of a blended learning approach in post graduate education is critical for the competencies achievement, which has been a demand of global society's for professionals, including Nursing. This competency is related to the capacity in utilizing information technology. The development of blended learning approach requires support including the development of quality media and materials, attractive and interactive website features, adequate outreach efforts, a good internet network, and a computer laboratory and a quality management team.

References

- Ahmad, N., & Al-Khanjari, Z. (2011). Effect of Moodle on learning: An Oman perception. *International Journal of Digital Information and Wireless Communications (IJDIWC)*, 1(4), 746-752.
- Beauchamp, T. L., & Childress, J. F. (2001). *Principles of biomedical ethics*: Oxford University Press, USA.
- Benner, P., Sutphen, M., Leonard, V., & Day, L. (2010). *Educating nurses: A radical call for transformation*: San Francisco, CA: Jossey-Bass.
- Carman, J. M. (2002). Blended learning design: Five key ingredients. Retrieved August, 18, 2009.
- CENA [College of Emergency Nursing Australasia]. (2008). Annual Report 2006. <http://www.cena.org.au/>.
- Cheetham, G., & Chivers, G. (1996). Towards a holistic model of professional competence. *Journal of European Industrial Training*, 20(5), 20-30.
- Cheetham, G., & Chivers, G. (1999). Professional competence: harmonizing reflective practitioner and competence-based approaches. *Developing the capable practitioner: Professional capability through higher education*, 215-228.
- ENA. (1999). Scope of emergency nursing practice. ENA Board of Director 1999. <http://www.ena.org/publications/scopes/ScopeEmNP.PDF>. retrieve 02/01/2009.
- Guillemin, M., & Gillam, L. (2004). Ethics, reflexivity, and "ethically important moments" in research. *Qualitative inquiry*, 10(2), 261-280.
- Hall, W., & Callery, P. (2001). Pearls, pith, and provocation. Enhancing the rigor of grounded theory: incorporating reflexivity and relationality. *Qualitative health research*, 11(2), 257-272. doi:doi: 10.1177/104973201129119082
- Hearne, L. (2013). Ethical research in guidance counselling. *ncge. ie/document-detail/Ethical-Research-in-Guidance-Counselling/4* [accessed 6 February 2017].
- Hee-jung¹, J., & Sun-YEUN, H. (2016). The Effects of Blended Learning in Nursing Education on Critical Thinking and Learning Satisfaction of Nursing Students.
- HKENA, H. K. E. N. A. (2009). The History of Founding HKENA. Retrieve 10/02/2009 from <http://www.hkena.org/history.htm>. retrieve 10/01/2009.

- Holanda, F. L. d., Marra, C. C., & Cunha, I. C. K. O. (2015). Professional competency profile of nurses working in emergency services. *Acta Paulista de Enfermagem*, 28(4), 308-314.
- ICN, I. C. o. N. (2009). History of the Royal College of Nursing Accident & Emergency Nursing Association. Retrieve 10/01/2009 From <http://www.icn.ch/>.
- Institute for Health Metrics and Evaluation, I. (2013). GBD Profile: Indonesia. *GBD Country Profiles*. Retrieved from <http://www.healthdata.org/results/country-profiles>
- Institute for Health Metrics and Evaluation, I. (2013). GBD Profile: Indonesia. *GBD Country Profiles*. Retrieved from <http://www.healthdata.org/results/country-profiles>
- Japanese Nurses Association. (2006). Nursing Activities:Credentialing.. <http://www.nurse.or.jp/jna/english/activities/credentialing>. retrieve 10/01/2009.
- Kompas. (2013). Sinabung Eruption. *Tempo*. Retrieved from <http://regional.kompas.com/read/2013/11/18/1715149/Gunung.Sinabung.Meletus.Lagi>
- Kompas. (2013). Sinabung Eruption. *Tempo*. Retrieved from <http://regional.kompas.com/read/2013/11/18/1715149/Gunung.Sinabung.Meletus.Lagi>
- Kwak, D. W., Menezes, F. M., & Sherwood, C. (2015). Assessing the impact of blended learning on student performance. *Economic Record*, 91(292), 91-106.
- Lincoln, Y. S. (1995). Emerging criteria for quality in qualitative and interpretive research. *Qualitative inquiry*, 1(3), 275-289.
- Menager-Beeley, R. (2004). *Web-based distance learning in a community college: The influence of task values on task choice, retention and commitment*: University of Southern California.
- Mills, J., Bonner, A., & Francis, K. (2006). Adopting a constructivist approach to grounded theory: Implications for research design. *International journal of nursing practice*, 12(1), 8-13.
- Ministry of Health of Indonesia. (2009). Standard of Hospital Emergency Department (Vol. No. 856 /Menkes/SK/ 2009). Jakarta: Ministry of Health of Indonesia.
- Morris, N. (2015). Providing ethical guidance for collaborative research in developing countries. *Research ethics*, 11(4), 211-235.
- National Central Bureau of Statistics-Biro Pusat Statistik, N.-B. (2010). Statistics Indonesia of the Republic Indonesia. Retrieve, October 17, 2012.
- National Central Bureau of Statistics-Biro Pusat Statistik, N.-B. (2010). Statistics Indonesia of the Republic Indonesia. Retrieve, October 17, 2012.
- Nursing and Midwifery Board of Australian. (2013). *National Competency Standards for the Registered Nurse [electronic Resource]*: Nursing and Midwifery Board of Australian.
- Orb, A., Eisenhauer, L., & Wynaden, D. (2001). Ethics in qualitative research. *Journal of Nursing Scholarship*, 33(1), 93-96.
- Robson, C. (2002). *Real word research*: Oxford: Blackwell.
- Saliba, G., Rankine, L., & Cortez, H. (2013). Fundamentals of blended learning. *University of Western Sydney*. Retrieved June, 30, 2014.
- Spivey, J. L. (2006). CNA annual report. *Outlook*, 29 - 2, 8-9.
- Tempo. (2010). Merapi Eruption. *Tempo*. Retrieved from <http://www.tempo.co/read/news/2010/11/05/177289637/Letusan-Merapi-Terbesar-Dalam-100-Tahun-Terakhir>
- Tempo. (2010). Merapi Eruption. *Tempo*. Retrieved from <http://www.tempo.co/read/news/2010/11/05/>

177289637/Letusan-Merapi-Terbesar-Dalam-100-Tahun-Terakhir.

The Republic of Indonesia. (2014). Indonesia Facts and Figures. Retrieved from <http://www.embassyofindonesia.org/wordpress/>

The Republic of Indonesia. (2014). Indonesia Facts and Figures. Retrieved from <http://www.embassyofindonesia.org/wordpress/>

Thorne, K. (2003). *Blended learning: how to integrate online & traditional learning*: Kogan Page Publishers.

Wallace, K. A. (1999). Anonymity. *Ethics and Information technology*, 1(1), 21-31.

Watson, J. (2008). Blended Learning: The Convergence of Online and Face-to-Face Education. Promising Practices in Online Learning. *North American Council for Online Learning*.

WHO, W. H. O. (2013). Indonesian Health Care System, retrieved from www.ino.searo.who.int/en/Section3_24.htm

WHO, W. H. O. (2013). Indonesian Health Care System, retrieved from www.ino.searo.who.int/en/Section3_24.htm.

WHO-SEARO. (2007). Emergency and Humanitarian Action: Country Report: Indonesia. Retrieved 19/02/2009 from http://www.searo.who.int/LinkFiles/EHA_CP_Indonesia.pdf.

WHO-SEARO. (2007). Emergency and Humanitarian Action: Country Report: Indonesia. Retrieved 19/02/2009 from http://www.searo.who.int/LinkFiles/EHA_CP_Indonesia.pdf.

Zhu, C. (2012). Student satisfaction, performance, and knowledge construction in online collaborative learning. *Journal of Educational Technology & Society*, 15(1), 127