Using blended learning model (BLM) in the instructional process: teacher student perception's

Megan Asri Humaira¹*, Rasmitadila¹, Widyasari¹, Reza Rachmadtullah² and Dede Kardaya¹
¹Department of Elementary School Teacher Education, Djuanda University, Jalan Raya Puncak No.1 Bogor, Jawa Barat, Indonesia
²Department of Elementary School Teacher Education, University of PGRI Adi Buana, Surabaya, Indonesia

* megan.asri@unida.ac.id

Abstract. The purpose of this research was to explore teacher student (TS) perceptions of the use of blended learning models (BLM) in the instructional process. Data was collected through questionnaires and interviews with 50 TS who were divided into two classes (each class consists of 25 TS). The data were analyzed through descriptive analysis to obtain the percentage of TS perceptions and context analysis of the interview results. The results showed that of the six aspects measured, there were five positive perceptions of TS on the use of BLM, namely the quality of interaction between students when discussing, the quality of interaction between lecturers and students in learning, TS satisfaction in learning, ease of TS in understanding subject matter, learning experience what TS get. The negative perception of TS lies in the ease of internet access that still needs to be improved so that learning objectives can be achieved.

1. Introduction

The development of information and communication technology advances is currently taking place so rapidly, that it is only natural that experts call this a revolution. Moreover, at this time the current of globalization has entered the territory of Indonesia, and the world now has entered the industrial revolution era 4.0 [1], it is time for Indonesia to be ready to face various phenomena of digital progress and development due to the industrial revolution. No exception in the field of education, especially universities that are directly related to the development and implementation.

For that reason, learning in universities is also required to change [2]. The instructional pattern that was initially carried out conventionally --only face to face-- is currently demanded in a more open direction by utilizing information and communication technology as a learning medium. As a result, learning can be done anywhere, not limited to time and can choose to study with anyone [3]. This will support the ability of lecturers and students who are equally required to be more intelligent and creative. One form of creativity is the use and development of instructional media in learning [4].

Some of the problems faced in learning in higher education are the limited access to learning resources that have to be done face-to-face. Meanwhile, with the movement of people and learning needs, a lot of learning is not done by students to be able to meet directly with lecturers. On the contrary, the duties and obligations of lecturers vary and demand many things constrained by time and
place of learning, so that many face to face learning becomes lost and lacks quality. This problem causes learning to be ineffective, and learning objectives cannot be achieved. So that the fulfillment of student values and competencies is not met. For this reason, it is necessary to modify learning involving students and lecturers, but not limited by space and time in learning. One aspect of achieving learning goals by modifying learning is the use of blended learning (BLM) learning models.

The BLM is an online and offline (face-to-face) learning that aims to facilitate learning activities by providing various learning resources [5][6]. Several definitions that have been widely expressed by experts or previous researchers that BLM is a learning modification model that combines face-to-face and online learning by utilizing the information technology that is developing today. Both through multimedia technology, video streaming, virtual classes, e-mail and conferencing. Some of the benefits of using BLM is to provide a learning experience, learning becomes more meaningful, involves student participation so that interaction can take place [7]. The end goal of using BLM is the achievement of quality and meaningful learning goals for students [8][9].

To facilitate the BLM process, a Learning Management System (LMS) application is used which is a learning system that supports BLM. LMS application software for administration, documentation, tracking, and reporting of a series of online learning programs and activities. LMS has facilities and features about the text, graphics, information, simulation, audio and video that can be used to optimize the quality of learning. This application also provides convenience for 'discussion groups' with the help of professionals in their fields [10].

The purpose of this study is to explore the opinions of teacher students (TS) in the use of BLM in Indonesian language courses.

2. Methodology
This research is a type of descriptive research. Participants consisted of 50 TS who took Indonesian language courses in the 5th semester of the academic year 2017-2018 of private university in West Java Indonesia. The TS were divided into two classes (class A and class B). Data were obtained based on interviews and questionnaires on TSs. The number of questionnaire questions given was six questions. Both of these classes have previously studied both conventional and BLM in the previous semester in the science learning courses. Observation data in the form of field notes are used to get a percentage of the number of learning interactions. The data obtained were then analyzed using content analysis.

3. Result and Discussion
3.1. Result
After distributing questionnaires, observations, and interviews with all students, the results of the comparison between the two classes were related to students' perceptions of learning using BLM and conventional as shown in Table 1.

| No | Aspect measured                             | Class A |       | Class B |       |
|----|--------------------------------------------|---------|-------|---------|-------|
|    |                                            | Positive % | Negative % | Positive % | Negative % |
| 1  | Quality of interaction between TS when discussing | 75.5     | 24.5  | 85      | 15     |
| 2  | Quality of interaction between TS and lecturers | 65       | 35    | 72.5    | 27.5   |
| 3  | TS satisfaction's in the learning process    | 70       | 30    | 75      | 25     |
| 4  | Ease of TS in an understanding subject matter | 65       | 35    | 75      | 25     |
| 5  | Student learning experience                 | 80       | 20    | 85.5    | 14.5   |
| 6  | Ease of internet access                     | 50       | 50    | 40      | 60     |
Table 1 shows that in class A and B the highest percentage of positive perceptions of TSs from the use of BLM lies in the learning experience gained by students that is equal to 80% in class A and 85.5% in class B. Conversely, the negative perception in the highest percentage lies in the ease internet access, which is 50% in class A and 60% in class B.

3.2. Discussion

Based on the results obtained in Table 1, shows that some aspects are measured, resulting in some positive and negative perceptions that can be used as a basis for improving the use of BLM in the future to be more effective in its use.

The use of BLM in the learning process is proven to increase the quality of interaction between TSs. Positive results in both class A and class B show that space and time do not limit the ease of learning that, and the encouragement of lecturers in making variations of learning, namely in the form of chat and discussion forums in the LMS provide TSs with comfort in discussing. TSs are free to give opinions in forums, even without face-to-face, which gives the TSs the courage and confidence to argue. Vice versa, the interaction between TSs and lecturers also increases in intensity [11], because of their comfort and confidence to express their opinions without feeling embarrassed or guilty if the opinion is wrong.

Interactions that occur indicate TS satisfaction in learning [12][13]. This is indicated by TS satisfaction in learning. Positive perceptions of TSs in the learning process are shown in self-regulated, which means they can manage their learning. TSs have an obligation to learn which is their responsibility to acquire knowledge, not because of coercion.

Of course, TSs who have satisfaction in the learning process will get ease in learning. TSs who have high self-regulated will undoubtedly have the comfort of understanding the lesson [14]. This is related to a sense of responsibility, motivation and high confidence to understand the lesson easily.

The ease of understanding the lesson is very much related to the presentation of the learning material in the LMS that is modified by the lecturers, the way of learning and TSs, the learning media provided by the lecturer, to give a deep learning experience for TSs.

![Figure 1](image_url)

In Figure 1, the display of various activities in LMS, such as discussion forums, chat, quizzes, access to textbooks, articles provide TS learning opportunities. Learning activities that have only shown face-to-face learning activities, with modification of activities in LMS provide more meaningful learning experiences to students.

The negative perception given by TSs at BLM is about internet accessibility to LMS. Some TS opinions state that not every TS has internet access at home, so it is still difficult to access the internet to LMS. Whereas access provided on campus, even though it is freely available, but the capacity is still low, which makes it difficult to access, so this causes delays in learning. Accessibility is one of
the main components in BLM, so learning can take place promptly, and become an indicator of the successful use of BLM in learning [15].

4. Conclusion

The TS's perception on the use of BLM in the instructional process gives positive and negative perceptions. Positive perceptions of TSs are shown in the quality of interaction between TSs, the interaction between lecturers and TSs, TS satisfaction in the instructional process, the ease of TSs in understanding lessons, the learning experience gained by TSs. While the negative perception of TSs is about internet accessibility to LMS that still needs to be improved so that the learning objectives can be achieved well.

References

[1] J.-K. Lee, “Happiness and Ethical Values in Higher Education.,” Online Submiss., 2017.
[2] S. G. Kurymbayev et al., “Development Principles of the Pedagogical System Aimed at Bachelor Training Based on Modern Information Technology.,” Int. J. Environ. Sci. Educ., vol. 11, no. 18, pp. 11771–11790, 2016.
[3] M. Ally and M. Samaka, “Open education resources and mobile technology to narrow the learning divide,” Int. Rev. Res. Open Distrib. Learn., vol. 14, no. 2, pp. 14–27, 2013.
[4] E. Mnkandla and A. Minnaar, “The Use of Social Media in E-Learning: A Metasynthesis,” Int. Rev. Res. Open Distrib. Learn., vol. 18, no. 5, 2017.
[5] P. Arabasz and M. B. Baker, “Evolving campus support models for e-learning courses,” Educ. Cent. Appl. Res. Bull., pp. 1–9, 2003.
[6] Y. Zhonggen, “Blended learning over two decades,” in Professional Development and Workplace Learning: Concepts, Methodologies, Tools, and Applications, IGI Global, 2016, pp. 1248–1267.
[7] M. Taylor, N. Vaughan, S. K. Ghani, S. Atas, and M. Fairbrother, “Looking Back and Looking Forward: A Glimpse of Blended Learning in Higher Education From 2007-2017,” Int. J. Adult Vocat. Educ. Technol. IJAVET, vol. 9, no. 1, pp. 1–14, 2018.
[8] D. R. Garrison and N. D. Vaughan, Blended learning in higher education: Framework, principles, and guidelines. John Wiley & Sons, 2008.
[9] W. Zhang, “Comparing Learning Outcomes of Blended Learning and Traditional Face-to-Face Learning of University Students in ESL Courses,” Int. J. E-Learn., vol. 17, no. 2, pp. 251–273, 2018.
[10] A. Fardinpour, M. M. Pedram, and M. Burkle, “Intelligent learning management systems: Definition, features and measurement of intelligence,” Int. J. Distance Educ. Technol. IJDET, vol. 12, no. 4, pp. 19–31, 2014.
[11] S. L. Somera, “Educator Experiences Transitioning to a Blended Learning Environment in K-6 Public,” 2018.
[12] Q. Huang, “Learners’ Perceptions of Blended Learning and the Roles and Interaction of f2f and Online Learning.,” ORTESOL J., vol. 33, pp. 14–33, 2016.
[13] M. Zhou and B. L. Chua, “Using blended learning design to enhance learning experience in teacher education,” Int. J. E-Learn., vol. 15, no. 1, pp. 121–140, 2016.
[14] S. Van Laer and J. Elen, “In search of attributes that support self-regulation in blended learning environments,” Educ. Inf. Technol., vol. 22, no. 4, pp. 1395–1454, 2017.
[15] M. G. Alzahrani and J. M. O’Toole, “The Impact of Internet Experience and Attitude on Student Preference for Blended Learning,” J. Curric. Teach., vol. 6, no. 1, p. 65, 2017.