

Learning Model Development Blended Learning English

Iin Syahri^{1,*}, Sahat Siagian², Naeklan Simbolon³

^{1,2,3}*Educational Technology Postgraduate Universitas Negeri Medan, Medan, Indonesia*

**Corresponding Author. Email: iinsyahri69@gmail.com*

ABSTRACT

This study aims to find out: (1) the feasibility of the developed English blended learning model, and (2) its effectiveness in improving learning outcomes. This type of research is research and development by adopting the development procedure model of Borg and Gall (2005), Dick and Carey (2005) and Bielawski (2003) combined in one set of activities through 5 stages: (1) preliminary research, (2) making design, (3) material collection, (4) product manufacture and (5) review and trial. Determination of product viability based on the results of the validation of the expert team and field trials. Determination of product effectiveness is based on comparing student test results that are learned with and without the developed blended learning model. Based on the results of the product validation test by the expert team, it was declared very feasible and effectiveness proved by improvement student learning outcomes.

Keywords: *Blended learning learning model, learning outcomes*

1. INTRODUCTION

Obtaining maximum learning outcomes is an expectation in learning. Learning outcomes are in the form of understanding the level of knowledge, attitudes and skills in the form of scores after participating in learning activities [1].

Observing the existence of a problem with the low learning outcomes due to the limited allocation of learning time in schools, the concentration of learning in teachers, the minimal use of technology in learning is a problem issue to be overcome through the development of technology-assisted learning models to make it easier to improve learning outcomes [2]

In favor of information and communication technology in today's millennial society based on information and knowledge [3] and the emergence of the 'independent learning' trend in the digital era of things, industry 4.0 is an ideal support for integrating it in learning as an effort to improve learning outcomes through research and development.

Blended learning model as the rapid development offers many new alternatives for learning and, as a consequence, shifts are occurring in learning [4] as has been done by several previous

researchers concluded that by using the blended learning model learning becomes (1) free and students feel satisfied, [5], (2) can increase the productivity of results [6], (3) learning becomes more effective in completing learning tasks [7]. Research and development is a process of collecting and understanding information on a problem by developing something (product) that already exists so that it becomes more practical, efficient and effective, or creating a new product that has never been a solution [7]. Blended learning model is a learning model that combines face-to-face learning models and networks [8] or online learning [9] or is learning that combines various means, media, and technology to create optimal learning conditions [10].

The combination in the blended learning model can be carried out between learning media, between learning methods and face-to-face learning models and networks [11] which in practice can be done with the help of internet technology [12] and with the help of technology in learning will be able to increase interest and learning outcomes. [13]

In connection with efforts to improve learning outcomes, presumably with the development of this blended learning model students benefit from learning freedom without limitation of time and place (not feeling shackled) [15] and can provide a lot of time and space for students to learn in a flexible and learning atmosphere. effective in terms of when, where, by and what interests

[16] so that students can learn according to their needs and learning styles as generally desired by teachers in achieving learning effectiveness [17] and the consequences of the influence on the development of information and communication technology (ICT) and the demands of the development of the 'transformation curriculum' [18].

There are 3 learning theories that underlie this research and development, namely (1) Behavioristic learning theory. Behaviorism states that learning is an event that forms associations between events called stimulus (S) and response (R). A stimulus is something outside humans that is able to activate the organism to act and the response is a behavioral reaction due to a stimulant [19] and related to this, the blended learning model is associated as a stimulus (S) which is able to stimulate students to learn (R). (2). Constructive Learning Theory. Constructivism emphasizes learning to focus on students with the aim that students are able to develop material and understanding independently and construct them in finding concepts and transforming them into complex forms and revising them according to their initial understanding and new understanding through assignments with the concept of solving a problem. (3). Cognitive Learning Theory. Cognitivism states that the learning experience is more focused on cognitive structures through the process of assimilation and accommodation which can produce intellectual growth. [20] and this is in accordance with the main objective of using the blended learning model which combines several media, learning methods and network and face-to-face learning models in order to provide better learning outcomes [21]

The composition of the blended learning model developed maintains the conditions of face-to-face learning by combining learning through a website-based network by utilizing the help of information and communication technology as is commonly done in the world of education in particular [22] with a strategy of 60% of learning done online and 40% offline with using the syntax: Prepare me, Tell me, Show me, Let me and Help me) [23] based on a scientific approach that supported by video instructional media in the form of software and online on the internet. Through this learning model we will optimize the benefits of both methods.[24].

The use of instructional video media in the blended learning model will provide a greater learning experience through the sense of sight, and hearing which will result in maximum absorption of understanding as expressed in the theory of learning experiences in Dale's Cone Experiences. It is said that the acquisition of learning outcomes through the sense of sight is around 75%,

through the sense of hearing about 13%, and through other senses about 12%. [25].

Based on the description above, 3 basic problems can be identified: (1) low learning outcomes, (2) centralization of learning models and resources for teachers and (3) the minimal use of technology in learning and related to this problem research needs to be done and with the aim of knowing : (1) determine the feasibility of the developed English blended learning model and (2) its effectiveness in improving learning outcomes.

2. RESEARCH METHODS

The research method used is a mixed research method of research and development types by adopting 3 procedures which are arranged in one activity through 5 stages, namely: First, conducting preliminary research starting with collecting information in the field with the following activities: (1) Identify Instructional Goals (2) Conduct Instructional Analysis, namely (3). Learners' Need Assessment. (4) Analyze Learners and Context (5) Study Literature, (6) Field Research, (7) Write Performance Objectives (10) Develop and Select Instructional Materials [26]. Second: Planning planing stage, product design) (1) Making the design of programs or applications used in making media; (2) Writing variable scripts from subject matter and other supporting materials that are included in the media; (3) Making story boards or media drafts; (4). Making media flow charts; (5) Type / model of blended learning (6) Online learning form [27]. Third, the collection of materials, equipment or facilities / infrastructure used in making learning media, namely: computers, laptops, androids, subject matter, animated images, instruments / songs, types of applications, hosting, website addresses and other supporting materials. The fourth is the making (initial) design of the components / variables that are included in the learning media, namely: writing the title, writing the text of the subject matter, recording learning narratives, recording musical instruments / songs that accompany learning, making learning animations and making application programs and determining hosting and website [28] as well as uploading to the internet and the fifth is review, product testing and evaluation activities with the following activities: (1) Expert Validation, (2) Preliminary Field Testing, (3) Main (4) Main Field Testing, (5) Operational Product Revision (6) Operational Field Testing, (7) Final Product Revision namely activities, (8) Conducting blended learning, (9) Evaluation [29].

Determination of product feasibility is carried out by validation activities by a team of experts (material, media and instructional design experts) and field test activities (limited, main and operational) and determination of

product effectiveness is carried out by comparing the results of English learning tests on students who are taught using the learning model blended learning developed online and offline through hypothesis testing.

3. RESULT

Based on the results of the validation test by the expert team, it was obtained a mean score of 92% and it was stated that it was very suitable for use in learning as well as in the product trial it was declared very feasible with an average score of 91%.

Based on the results of the calculation of the hypothesis test, it was obtained that the value of t_{count} was 3.78 and t_{table} value of 1.69 in the sense of $t_{count} > t_{table}$, it was concluded that H_0 was accepted in the sense that the blended learning model of English developed online was effective in improving learning outcomes. The results of this study support the results of research that has been conducted by several previous researchers, including the conclusion that using a learning model can provide better results (learning) [30], [31] and [32].

4. CONCLUSION

Based on the description of the discussion of the results of research and development of the blended learning model, it is concluded that the product of the blended learning model developed is very suitable for use in learning and is effective in learning improve English learning outcomes.

REFERENCES

- [1] Hergentan B.R and Olson H. M. *Theories of Learning (Theory Learning)* Seventh Edition translated by Tri Wibowo B.S. Golden. Jakarta (2010).
- [2] Sitepu, G. P. *Learning Resources Development*. Jakarta: PT. Raja Grafindo Persada (2014).
- [3] Prawiradilaga, D., and Siregar, Eveline. (2004). *Educational Technology Mosaic*. Jakarta: Prenada Media (2004).
- [4] Siagian, S. Effectiveness and efficiency of e-learning in Instructional Design. *World Transactions on Engineering and Technology Education*, 18 (1), 73-77 (2020).
- [5] Melton, Bridget Frugoli. Graf, Helen and Joan, Chopak. 'Achievement and Satisfaction in Blended learning versus Traditional General Health Course Design'. *International Journal for the Scholarship of Teaching and Learning*, 3 (1), 26-33 (2010).
- [6] Rovai, A.P. Jordan H.M, Blended Learning and Sense Community: a comparative analysis with traditional and fully online graduate courses, *International Journal Review of Research in Open Distance Learning*, 15 (2) 85-102 (2014).
- [7] Track, Dinning; Cherries, Magill; Julie, Money; Barbara, Walsh; Sarah, and Nixon. Can a Blended Learning Approach Enhance Students' Transition into Higher Education ?, A Study to Explore Perception Engagement and Progression. *International journal of advancement in education and social sciences*, 3 (2), 1-7 (2017).
- [8] Creswell, J. W. *Educational Research-Planning, Conducting, and Evaluating Quantitative and Qualitative Research*. New Jersey: Pearson Education, Inc (2008)
- [9] Heinze, A., Procter, C., & Scott, B. Use of Conversation Theory of Blended Learning. *International Journal of Teaching and Case Studies*, 6 (7), 108-120 (2007).
- [10] Simanullang, N. H. S., & Rajagukguk, J. (2020). Learning Management System (LMS) Based On Moodle To Improve Students Learning Activity. *JPhCS*, 1462(1), 012067.
- [11] Sneeze, Josh. *The Blended Learning Book, Best Practices, Proven Methodologies and Lesson Learned*. USA: Pfeiffer Publishing (2004).
- [12] Graham, C.R., Allen, S., and Ure, D. . *Blended Learning Environments: A Review of The Research Literature*, (http://msed.byu.edu/ipt/graham/vita/ble_litrev.pdf). 2006.
- [13] Castle, SR. & McGuire, CJ. An analysis of Student Self Assessment of Online, Blended and Face to Face Learning Environment: Implicative For Sustainable Education Delivery. *International Journal Education Studies*, 3. (3), 132-142 (2010).
- [14] Dwaik, Raghad, Jweilies, Abdulmuti. Using blended learning to Evhance Student Learning American Learning Literature Courses. *International Journal of Technology*, 15 (4), 412-422. (2016).
- [15] Khairani, N. A., & Rajagukguk, J. (2019, December). Development of Moodle E-Learning Media in Industrial Revolution 4.0 Era. In 4th Annual International Seminar on Transformative Education and Educational Leadership (AISTEEL 2019). Atlantis Press.
- [16] Miarso, Yusufhadi. *Sowing the seeds of educational technology*. Jakarta: Kencana Prenada Media Group (2007).
- [17] Jeffrey, L. M; Milne, J .; Suddaby. G. and Higgins, A. Blended learning: How teachers balance the blend of online and classroom components. *Journal of Information Technology Education: Research*, 13 (7), 121-140 (2014).

- [18] Seller, W. and Miller, J. P.. *Curriculum Prespective and Practice*. New York: Longman Inc, Alpine Press Inc (1985).
- [19] Greadler, E M. *Learning and Instruction Theory and Applications*. Prenada Media Group. Jakarta (2013).
- [20] Piaget, J. *The Chil'd Conception of Physical Causality*. New Jersey: Little Field (1969).
- [21] Graham, CR, Allen, S., and Ure, D. *Blended Learning Environments: A Review of The Research Literature*, ([http://msed.byu.edu/ipt/graham/vita/ble_litrev .pdf](http://msed.byu.edu/ipt/graham/vita/ble_litrev.pdf)). 2006.
- [22] Heinze, A., Procter, C., & Scott, B. (2007). Use of Conversation Theory of Blended Learning. *International Journal of Teaching and Case Studies*, 6 (7), 108-120 (2007).
- [23] Macdonald, J. *Blended learning and online tutoring* (second edition). Burlington: Gower Publishing Company (2008).
- [24] Simbolon, N. ICT-Based English Learning Innovationto Improve. *Advances in Social Science, Education and Humanities Research*. (384), 668-671 (2019).
- [25] Dale, E. 1969. *Audiovisual Method in Teaching*. Third Edition. New York: The Dryden Press, Holt, Rinehart and Winston, Inc (1969).
- [26] Dick, W. A. and Carey, L. (2005). *The Systematic Design of instruction*. Boston: Allyn and Bacon (2005).
- [27] Bielawski, L. D. *Blended e-learning integrating knowledge, performance support, and online learning*. USA: HRD Press (2003).
- [28] Bielawski, L.D. *Blended e-learning integrating knowledge, performance support, and online learning*. USA: HRD Press (2003).
- [29] Gall, M.D., Gall, J.P. and Borg, W.L., *Educational Research: An Introduction*. (7th Edn), Boston, MA: Allyn and Bacon (2003).
- [30] Melton, Bridget Frugoli. Graf, Helen and Joan, Chopak. 'Achievement and Satisfaction in Blended learning versus Traditional General Health Course Design'. *International Journal for the Scholarship of Teaching and Learning*, 3 (1), 26-33 (2010).
- [31] Sezen, Tosun. *The Effects of Blended Learning on EFL students' vocabulary Enhancement*. (www.sciencedirect.com). 2016.
- [32] Track, Dinning; Cherries, Magill; Julie, Money; Barbara, Walsh; Sarah, and Nixon. Can a Blended Learning Approach Enhance Students' Transition into Higher Education?, A Study to Explore Perception Engagement and Progression. *International journal of advancement in education and social sciences*, 3 (2), 1-7 (2017).