



BLENDED LEARNING METHOD IN THE VIEW OF LEARNING AND TEACHING STRATEGY IN GEOGRAPHY STUDY PROGRAMS IN HIGHER EDUCATION

Gunawan Widjaja¹, Aslan²

Universitas Krisnadwipayana, Indonesia¹

Institut Agama Islam Sultan Muhammad Syafiuddin Sambas, Indonesia²

widjaja_gunawan@yahoo.com, Coresponding author: aslan@iaisambas.ac.id

Received: 02-11-2021

Revised: 16-01-2022

Accepted: 01-02-2022

Abstract

In this era of digital technology, learning is very foreign if it still uses single method methods, namely face-to-face. We firmly believe that combining traditional methods with technology must be applied to achieve outcomes, especially in postgraduate studies. For that reason, we have carried out many publications in journals, books and procedures, and other information. Then the effort has involved several steps such as understanding the data through coding evaluation and drawing conclusions that essentially want to get the answer data on this royal question as valid and accurate as possible. Based on the available evidence and the depth of the discussion of the findings, we can finally say that the learning strategy in universities, especially in the undergraduate market, is a strategy that combines the old and new ways, namely face-to-face in the classroom and is guided by collaborative learning or learning-based learning. Thus, it is hoped that the findings of this study will make the development and progress of learning and learning studies related to blended learning increase in the future.

Keywords: Blended Learning, Conventional Learning, Education Geography, Review.

Abstrak

Di era teknologi digital ini, pembelajaran sangat asing jika masih menggunakan metode tunggal yaitu tatap muka. Kami sangat percaya bahwa menggabungkan metode tradisional dengan teknologi harus diterapkan untuk mencapai hasil, terutama dalam studi pascasarjana. Untuk itu, kami telah melakukan banyak publikasi di jurnal, buku dan prosedur, dan informasi lainnya. Kemudian upaya tersebut melibatkan beberapa langkah seperti pemahaman data melalui pengkodean evaluasi dan penarikan kesimpulan yang intinya ingin mendapatkan data jawaban atas pertanyaan kerajaan ini sevalid dan seakurat mungkin. Berdasarkan bukti-bukti yang ada dan kedalaman pembahasan temuan, pada akhirnya dapat dikatakan bahwa strategi pembelajaran di perguruan tinggi khususnya di pasar sarjana adalah strategi yang menggabungkan cara lama dan cara baru yaitu tatap muka secara tatap muka. kelas dan berpedoman pada pembelajaran kolaboratif atau pembelajaran berbasis pembelajaran. Dengan demikian, diharapkan temuan penelitian ini akan membuat perkembangan dan kemajuan pembelajaran dan studi pembelajaran terkait blended learning meningkat di masa mendatang.

Kata Kunci : *blended learning, pembelajaran konvensional, pendidikan geografi, Review.*

INTRODUCTION

The discussion about technology-based learning, especially the learning model, combining traditional in-classroom using an internet connection, means that the discussion is closely related to learning related to the blended learning system.¹ Lately, pandemic poetry has hit education and global government policy responses to distance learning due to policies against the coronavirus; finally, the concept of blended learning is increasingly popular among education experts, curriculum developers, especially students.² Although blended learning has become one of the learning models in the digital era, coupled with the issue of responding to the pandemic that has hit not only education in Indonesia but education around the world, discussions, and understandings about blended learning-based learning are still interesting to study materials.³ Because the study of learning methods is a course that has a significant impact on the development of the modern century, it is exciting to discuss, related to how and why blended learning is applied in the learning environment in higher education, especially in postgraduate programs in their respective fields of study.⁴

It is better before this research is continued, we want to provide a re-understanding of what is meant by blended learning-based learning, sometimes this understanding is universal, so we try to have a deeper understanding of blended learning-based learning in the application of learning geography subjects.⁵ In this case, learning geography is at the level of higher education, such as postgraduate, so that readers will get a more specific and strategic discussion about the advantages and application strategies of blended learning in the Geography study program at universities. So what we mean by blended learning here is an educational event, especially geography, when learning takes place; therefore, blended learning is a teaching method that combines old methods before digital technology with all technological applications in studying geographic content.⁶ With this method, we will describe all learning opportunities and challenges and provide solutions during lectures on geography material at every level of education, especially at the higher education level. Compared with traditional method-based geography learning, what are the advantages, conveniences,

¹ Abeer Ali Okaz, "Integrating blended learning in higher education," *Procedia-Social and Behavioral Sciences* 186 (2015): 600–603. Purniadi Putra dkk., "The Relevancy on Education Release Revolution 4.0 in Islamic Basic Education Perspective in Indonesia (An Analysis Study of Paulo Freire's Thought)," *Test Engineering & Management* 83 (2020): 10256–63.

² Kevin Anthony Jones dan Ravi S. Sharma, "An experiment in blended learning: Higher education without lectures?," *International Journal of Digital Enterprise Technology* 1, no. 3 (2019): 241–75. Aslan Aslan, *HIDDEN CURRICULUM* (Pena Indis, 2019).

³ M. Victoria López-Pérez, M. Carmen Pérez-López, dan Lázaro Rodríguez-Ariza, "Blended learning in higher education: Students' perceptions and their relation to outcomes," *Computers & education* 56, no. 3 (2011): 818–26.

⁴ Farahiza Zaihan Azizan, "Blended learning in higher education institution in Malaysia," dalam *Proceedings of regional conference on knowledge integration in ICT*, vol. 10, 2010, 454–66. Prasetyono Hendriarto dkk., "The Relevance of Inquiry-Based Learning in Basic Reading Skills Exercises for Improving Student Learning Outcomes in Madrasah Ibtidaiyah," *At-Tajdid: Jurnal Pendidikan Dan Pemikiran Islam* 5, no. 01 (15 Juni 2021): 28–41, <https://doi.org/10.24127/att.v5i01.1473>.

⁵ Geraldine Torrisi-Steele dan Steve Drew, "The literature landscape of blended learning in higher education: The need for better understanding of academic blended practice," *International Journal for Academic Development* 18, no. 4 (2013): 371–83.

⁶ Siobhan Smyth dkk., "Students' experiences of blended learning across a range of postgraduate programmes," *Nurse education today* 32, no. 4 (2012): 464–68.

advantages, and also other unique challenges that blended learning-based learning has? Furthermore, how to control students, adjust to the time, place, learning approach, and matters related to blended-based learning problems.⁷

Furthermore, blended learning or e-learning is a technology-based learning method or, for example, when learning combines old methods with a mixture of online or online-based technologies.⁸ According to experts, the application of blended learning-based Geography learning is a strategy that encourages and motivates students to make learning more personalizing students because now, in this digital era and when education is hit by a pandemic crisis and other crises.⁹ Learning cannot be carried out entirely like face-to-face in the classroom, but ideally, the percentage of learning and content is mixed face-to-face, and another 50% or the percentage can be adjusted so that learning can achieve its goals by how the teacher negotiates with students. This blended learning will provide a way new in solve learning crises both in regular times and in other crises.¹⁰

As the author experienced when studying and also working with research content, this blended learning system is indeed quite strategic because a typical Geography class cannot take a full-time course by relying on conventional learning systems without the presence of internet connection-based technology.¹¹ In other words, when the author works in the lab assisted by technology, it may only last an hour; the rest will occur with technology applications, especially regarding data that requires speed and accuracy with various concepts and theories needed in a speedy time with various source models and discussion content.¹² This is not possible if studying or working only relies on manual systems such as opening a book or looking at other databases in front of eyes. However, with a blended learning-based work strategy, it is possible to get as much content as possible quickly. -much because the ability to recognize online exceeds the speed that humans can do.¹³

It must be admitted that most of the learning that took place during the pandemic was done via online services considering and responding to the government's policy not to meet and gather in one room in groups so that we witnessed the existence of technology with the advantages of the Blended learning system. This is truly an advantage, an advantage, and a benefit that educators must adopt in helping students respond to the demands of learning and respond to the challenges conditioned by Covid-19 and other crises.¹⁴ If the problem is that

⁷ Okaz, "Integrating blended learning in higher education."

⁸ Amy Y. Chou dan David C. Chou, "Course management systems and blended learning: An innovative learning approach," *Decision Sciences Journal of Innovative Education* 9, no. 3 (2011): 463–84.

⁹ Arsad Bahri dkk., "Blended Learning Integrated with Innovative Learning Strategy to Improve Self-Regulated Learning," *International Journal of Instruction* 14, no. 1 (2021): 779–94.

¹⁰ Charles R. Graham, Wendy Woodfield, dan J. Buckley Harrison, "A framework for institutional adoption and implementation of blended learning in higher education," *The internet and higher education* 18 (2013): 4–14.

¹¹ Ahmad Al-Huneidi dan Jeanne Schreurs, "Constructivism based blended learning in higher education," dalam *World Summit on Knowledge Society* (Springer, 2011), 581–91. Purniadi Putra dkk., "The Students Learning from Home Experiences during Covid-19 School Closures Policy In Indonesia," *Jurnal Iqra': Kajian Ilmu Pendidikan* 5, no. 2 (5 September 2020): 30–42, <https://doi.org/10.25217/ji.v5i2.1019>.

¹² Ruth Boelens dkk., "Blended learning in adult education: towards a definition of blended learning," 2015.

¹³ Wei Jiang dkk., "Optimized co-scheduling of mixed-precision neural network accelerator for real-time multitasking applications," *Journal of Systems Architecture* 110 (2020): 101775.

¹⁴ Harvey Singh, "Building effective blended learning programs," dalam *Challenges and Opportunities for the Global Implementation of E-Learning Frameworks* (IGI Global, 2021), 15–23. Aslan Aslan dkk., "TEACHER'S LEADERSHIP TEACHING STRATEGY SUPPORTING STUDENT LEARNING DURING THE

students during the pandemic are not allowed to do social distancing or have discussions from afar, but the challenge is for writers or are they sure where they should be able to get data as quickly as possible, then they may not be able to ask questions with structure or finish prayers, but as soon as possible they will get help online. This is the virtue and advantage of blended learning and work-based strategies, so this method is a very profitable alternative.¹⁵

In terms of the clear benefits of blended learning, there is no doubt that this method is the best way of learning in the era of technology and learning disrupted by the pandemic and the crisis of human resources being unable to work.¹⁶ In other words, a way of learning in the classroom has minimal learning outcomes. However, with the help of technology, this is not a big problem anymore. Another benefit of course for students is that this method offers a very convenient, efficient, and flexible system or solution where students can control their learning with the help of teachers and parents. Then also for researchers in postgraduate learning environments working in universities.¹⁷ This is a comprehensive new strategy for utilizing fast learning content that allows students to communicate with their friends, teachers, and peers.

Even though they are far apart, like using social networks, another benefit obtained by schools and universities themselves is that academic management is getting cheaper and more practical. However, the results are no longer in doubt, as the educational service system at universities is based on research and cutting-edge technology.¹⁸ Perhaps hiring from professionals is very expensive, but with the presence of this mixed learning technology, it can be reduced face-to-face can be maximized and accommodation is clear based learning, and this can certainly be done and done outside of the building or campus where accommodation is costly than with the application of and these things that are productivity efficiency.¹⁹

After understanding the effectiveness and advantages of blended learning, all university stakeholders, such as polluters, instructors, and students, will compare which one is more profitable than the classroom-only method, which has little impact on learning outcomes.²⁰ So that the application of this method cannot be separated anymore because this is a very appropriate solution were many parties want to get a service and learning system that is more technical according to today's times. The era where technology is no longer only owned by professionals in government or business executives.²¹ In other words, the impact of

COVID-19 DISRUPTION,” *Nidhomul Haq: Jurnal Manajemen Pendidikan Islam* 5, no. 3 (21 November 2020): 321–33, <https://doi.org/10.31538/ndh.v5i3.984>.

¹⁵ Kobchai Siripongdee, Paitoon Pimdee, dan Somkiat Tuntiwongwanich, “A blended learning model with IoT-based technology: effectively used when the COVID-19 pandemic?,” *Journal for the Education of Gifted Young Scientists* 8, no. 2 (2020): 905–17.

¹⁶ Graham, Woodfield, dan Harrison, “A framework for institutional adoption and implementation of blended learning in higher education.”

¹⁷ Jen-Her Wu, Robert D. Tennyson, dan Tzyh-Lih Hsia, “A study of student satisfaction in a blended e-learning system environment,” *Computers & Education* 55, no. 1 (2010): 155–64.

¹⁸ Anthony G. Picciano, Charles Dziuban, dan Charles R. Graham, *Blended learning* (Routledge, 2014).

¹⁹ Peter Shea dan Temi Bidjerano, “Learning presence: Towards a theory of self-efficacy, self-regulation, and the development of a communities of inquiry in online and blended learning environments,” *Computers & education* 55, no. 4 (2010): 1721–31.

²⁰ Rana M. Tamim, “Blended learning for learner empowerment: Voices from the Middle East,” *Journal of Research on Technology in Education* 50, no. 1 (2018): 70–83.

²¹ Monika Pazio, “Blended learning and its potential in expanding vocabulary knowledge: A case study,” *Teaching English with Technology* 10, no. 1 (2010): 3–30.

technology is revolutionizing the way humans complete tasks that elites and legitimate professionals are preoccupied with the capabilities of blended learning technology. However, this mixed technology-based learning is undoubtedly a solution that is ready to revolutionize and innovate. The old way of teaching and learning has little results because the slow method will be an unwanted solution, no longer suitable for practical and dynamic learning in an era where technology is not unique in specific sectors.²²

Of course, this is a detailed lesson. It is undeniable that given the superiority and extraordinary work power, in this study, we will try to discuss in greater depth the relevance of the application of blended learning methods, especially in universities, in terms of teaching Geography courses in the context of optimizing learning in higher education.²³ This study will add insight, development, and experience from various sources, both published and orally. All of the content we found was supported by evidence from field studies.²⁴ This has become the belief of the author himself. So the enrichment and development of effective learning in the solution of crises due to the pandemic and the adoption of high-tech learning is following the spirit of learning in the new era where learning technology has become a very invincible solution today. Thus, new inputs for finding solutions to the low achievement of learning outcomes among universities, especially Geography, can be improved.²⁵

METHOD

This method section will describe the steps in conducting a publication review study that aims to gain a deeper understanding of blended learning-based learning strategies at the higher education or postgraduate level, especially in major Geography education.²⁶ As for what we do, first, we try to understand our research topic doing what task we have to do as a first command, then we choose a relevant and exciting topic followed by some questions.²⁷ Next, we try to develop the right strategy for completing projects related to qualitative studies with a phenomenological approach, an effort to gain understanding through data and information exploration as widely as possible before we try to process data with coding systems and test data analysis and interpretation efforts. So that we can present the findings as answers to research questions.²⁸

²² Izora M. Everson, "Implementation of Blended Learning Following a Yearlong Professional Development Program: A Descriptive Case Study" (PhD Thesis, Johns Hopkins University, 2019). Purniadi Putra dan Aslan, "PENGEMBANGAN BAHAN AJAR BERBASIS IMTAQ DAN IPTEK DI ERA REVOLUSI INDUSTRI 4.0 PADA MATA PELAJARAN SAINS MADRASAH IBTIDAIYAH," *Ta'Limuna: Jurnal Pendidikan Islam* 9, no. 1 (30 Maret 2020): 1–15, <https://doi.org/10.32478/talimuna.v9i1.345>. Sudarmo Sudarmo dkk., "The Future of Instruction Media in Indonesian Education: Systematic Review," *AL-ISHLAH: Jurnal Pendidikan* 13, no. 2 (31 Agustus 2021): 1302–11, <https://doi.org/10.35445/alishlah.v13i2.542>.

²³ Maryam Tayebinik dan Marlia Puteh, "Blended Learning or E-learning?," *arXiv preprint arXiv:1306.4085*, 2013.

²⁴ Asif Irshad Khan dkk., "Study of blended learning process in education context," *International Journal of Modern Education and Computer Science* 4, no. 9 (2012): 23.

²⁵ Laura Lloyd-Smith, "Exploring the advantages of blended instruction at community colleges and technical schools," *MERLOT Journal of Online Learning and Teaching* 6, no. 2 (2010): 508–15.

²⁶ Kyle Harper, *Slavery in the late Roman world, AD 275–425* (Cambridge University Press, 2011).

²⁷ Musab A. Oun dan Christian Bach, "Qualitative research method summary," *Qualitative Research* 1, no. 5 (2014): 252–58.

²⁸ Khan dkk., "Study of blended learning process in education context."

Our search effort is based on a crop of previous publications discussing the yellow flag and its efficient use in graduate studies.²⁹ Evidence from previous studies and our in-depth discussion of this research has resulted in findings that include, among others, that the buyer's application of technology-based learning and conventional methods or called blended learning, is a viral learning strategy or method,³⁰ at the first postgraduate level in research-based higher education compared to conventional learning. This finding is expected to be a reinforcing material. In determining the reporting format for this study, we have followed several similar studies, namely a qualitative descriptive design, which we consider capable of presenting our findings effectively and efficiently to understand. The database and study evidence that we obtained electronically came from several well-known publication journals and books, and websites, all of which actively discussed the effectiveness of blended learning, especially in postgraduate studies.³¹

RESULTS AND DISCUSSION

Blended learning in Geography in higher education

Learning activities at postgraduate universities, especially in developed countries, have recently found more innovative ways due to higher academic demands due to the increasing number of enthusiasts with various majors. The traditional face-to-face lecture method is no longer relevant to continue.³² Then the solution is a combination of learning or teaching integrated between conventional face-to-face methods in the classroom and solutions using technology because blended learning is more personal information services, so fast and personal in learning.³³ Various demands and offers from various universities in developing countries that are not much inspired by how education services in developed countries such as Australia, America, Singapore, and several other developing countries with technology-based education services and a mixture of conventional methods will provide a new nuance. Colors to learn at a high-level school with a face-to-face component, about 30%, and the rest are adopted in the form of blended learning.³⁴

Therefore, especially here, studying and studying Geography, considering the content, is very difficult to find information that must be obtained from the context and geography of other parts of the world, meaning that the language content is very complex and impossible to reach without adequate technology.³⁵ While the conventional learning component that geography students do not desire is because of how they can technically understand how information works, process and communicate, publish and share it, which requires technology

²⁹ Sandy Q. Qu dan John Dumay, "The qualitative research interview," *Qualitative research in accounting & management*, 2011.

³⁰ Kateřina Ratislavová dan Jakub Ratislav, "Asynchronous email interview as a qualitative research method in the humanities," *Human Affairs* 24, no. 4 (2014): 452–60.

³¹ Gabriella Malagon-Maldonado, "Qualitative research in health design," *HERD: Health Environments Research & Design Journal* 7, no. 4 (2014): 120–34.

³² Nalita James, "The learning trajectories of 'old-timers': Academic identities and communities of practice in higher education," dalam *Communities of Practice* (Routledge, 2013), 141–53.

³³ Tommaso Agasisti dan Geraint Johnes, "Efficiency, costs, rankings and heterogeneity: the case of US higher education," *Studies in Higher Education* 40, no. 1 (2015): 60–82.

³⁴ Chulani Herath dkk., "A comparative study of interprofessional education in global health care: a systematic review," *Medicine* 96, no. 38 (2017).

³⁵ López-Pérez, Pérez-López, dan Rodríguez-Ariza, "Blended learning in higher education."

that is following the current model of learning and scientific activity, namely the transfer and communication of knowledge and skills. Online from computer to computer, especially at the postgraduate level.³⁶

While the work process in higher education is the handling of academic work scientific projects that require students to access information, process data, print data into a new knowledge framework, the effort to publish it is a job that requires little lecturer intervention in strengthening conceptual understanding and theory.³⁷ However, students need greater independence were learning at postgraduate with the help of technology in their hands can rely on anything anytime, anywhere to carry out their duties and obligations with the help of technology.³⁸ In a situation like this, a learning approach may be mixed with a combination of lecturer intervention. The application of technology must be socialized if necessary from the undergraduate level to ensure that students are in postgraduate so that they are more familiar with technology-based learning to complete scientific and research-based projects that require time, work comfort, high motivation, and more personalized learning, which is facilitated by technology and supervised by lecturers and postgraduate coordinators.³⁹

Efforts to support technology-assisted cooperative learning activities are essential teachings that must receive a response from now on when students are still sitting and S1 so that they are accustomed to interacting with all learning tools; audio, video, digital text, graphics, and other learning resources whose components can be done virtually.⁴⁰ Independent in a certain way that is more personal. So it is not surprising that this blended approach has become very popular in this digital era, not only from modern countries but also from developing countries.⁴¹ Along with the turnover and knowledge of technology from day to day, from country to country, it is just as easy as automation and robotics. Messages from individual to individual are swift compared to the spread of knowledge with old techniques and others, of course, through technology by applying and merging two models and methods is something that must be done from now on so that there is a learning process with many models and broad scope of collaboration and connected globally.⁴²

³⁶ Che Ahmad Azlan dkk., "Teaching and learning of postgraduate medical physics using Internet-based e-learning during the COVID-19 pandemic—A case study from Malaysia," *Physica Medica* 80 (2020): 10–16.

³⁷ Jahar Bhowmik, Denny Meyer, dan Brian Phillips, "Using Blended Learning in Postgraduate Applied Statistics Programs," *Turkish Online Journal of Distance Education* 20, no. 2 (2019): 64–77.

³⁸ Farzaneh Saadati dkk., "Effect of internet-based cognitive apprenticeship model (i-CAM) on statistics learning among postgraduate students," *PLoS one* 10, no. 7 (2015): e0129938.

³⁹ R. A. De Leeuw dkk., "Quality specifications in postgraduate medical e-learning: an integrative literature review leading to a postgraduate medical e-learning model," *BMC medical education* 16, no. 1 (2016): 1–10.

⁴⁰ Paul-Erik Lillholm Rosenbaum dkk., "A blended learning course design in clinical pharmacology for post-graduate dental students," *The open dentistry journal* 6 (2012): 182.

⁴¹ Robin Castro, "Blended learning in higher education: Trends and capabilities," *Education and Information Technologies* 24, no. 4 (2019): 2523–46.

⁴² Vladlena Benson dan Ailsa Kolsaker, "Instructor approaches to blended learning: A tale of two business schools," *The International Journal of Management Education* 13, no. 3 (2015): 316–25.

Blended learning in a large class

Another convincing reason blended learning is relevant and popular for use in universities is that considering the learning community, sometimes universities have to deal with very up-to-date learning systems to compete like the industry.⁴³ Given a large number of participants from various academic, cultural backgrounds, abilities, especially in terms of working, rely on skills in research. Maybe not all students have the level of understanding and ability to perform data-based tasks and intermediate-level research.⁴⁴ The first batch of undergraduate students, for example, there are 100 people, so if based learning is planted in a relatively long time, this makes it difficult for instructors to share knowledge, monitor progress, and also carry out an evaluation process to see the level of development and mastery. This material is not easy to do by relying on the traditional face-to-face method sitting in a large class and very heterogeneous conditions.⁴⁵

So, technology-based learning solutions, in other words, learning is a very appropriate solution; however, due to the ability of managers who may not be sufficiently steady with this internet and electronic-based teaching approach, of course, teaching staff who are still limited in their abilities need to train and prepare themselves to help students.⁴⁶ Master's degree with a working procedure that is more directed to Hitech education and also an understanding of technology-based learning concepts by equipping themselves with good tutorials so that they can design various teaching models, including the design of computer-based learning modules, in other words, based on conventional-based learning and it is kind of like a lecture with tutorials with textbooks and all kinds of projects that are seen as barely relevant to the conditions where everything is fully automated and full of technology, especially in terms of learning and evaluation.⁴⁷

This is not very easy for the structure and also the students. When they want to get an actual evaluation conventionally, it is impossible to do because something that does not have data-based and blended methods, the Epidenbest method can be assisted by technology where each teacher and lecturer, of course, has traces that can be found when they interact with technology-based learning. In contrast, conventional-based learning for learning and evaluation, especially subjects such as geography, will undoubtedly have a problem both in modules in equalizing learning opportunities and also to get authentic evaluations that allow students' ability levels to be identified and evaluated and get a value that is following the existing database so that the face-to-face-based learning component and also by testing.⁴⁸

⁴³ Ron Owston, Dennis York, dan Susan Murtha, "Student perceptions and achievement in a university blended learning strategic initiative," *The internet and higher education* 18 (2013): 38–46.

⁴⁴ Patsy Moskal, Charles Dziuban, dan Joel Hartman, "Blended learning: A dangerous idea?," *The Internet and Higher Education* 18 (2013): 15–23.

⁴⁵ Mikko Myllymäki dan Ismo Hakala, "Video-based blended learning practice in master studies," *learning* 1, no. 3 (2013): 4.

⁴⁶ Mehmet Şahin, "Blended learning in vocational education: An experimental study," *International Journal of Vocational and Technical Education* 2, no. 6 (2010): 95–101.

⁴⁷ Y. Yustina, W. Syafii, dan R. Vebrianto, "The effects of blended learning and project-based learning on pre-service biology teachers' creative thinking through online learning in the Covid-19 pandemic," *Jurnal Pendidikan IPA Indonesia* 9, no. 3 (2020): 408–20.

⁴⁸ Ellen Costello dkk., "Information and communication technology to facilitate learning for students in the health professions: Current uses, gaps, and future directions," *Online learning: Official Journal of the Online Learning Consortium* 18 (2014).

In other words, blended learning is something that must continue to be defeated, especially at university diversity must deal with the principle of equity in terms of very heterogeneous learning conditions with different abilities and learning conditions; six universities must be able to ensure learning that participates and follows and at the same time promotes the latest innovations using technology blending with old methods to optimize learning outcomes and also there the continuity of the postgraduate program, especially in the field of geography.⁴⁹

Researchers view technology-based learning as an effort to overcome the shortcomings and skills possessed by individuals or staff, emphasizing that technological learning is one of the best and will produce different outputs because technology is believed to be innovative, creative, and innovative.⁵⁰ It is revolutionary so that when learning occurs in the digital era, the digital footprint will determine the fate and learning outcomes, and it is undeniable that traditional learning is also very effective but in the level and context of learning, such as welcoming than in briefing sessions and also Chelsea for information instructions and others. However, when it comes to mastering data processing, entering the completion of tasks, very technical tasks, and also with fiber with data, technology-based solutions or learning will be excellent in college, especially postgraduate.⁵¹

Blended learning and transformation learning

Under these circumstances, learning at the market level require a change or transformation from the traditional way of learning to this modern way of learning following the characteristics of learning in the undergraduate market where project-based learning is different from learning in schools and undergraduate programs where learning is dependent on textbooks.⁵² Moreover, other modules and intervention and control from the lecturers are still very dominant. This condition does not occur at the postgraduate level in the field of geography because the learning model at a high level, especially the geography study program, is a program that focuses on searching and understanding literature relevant to the postgraduate program where students and lecturers must be able to present or search for content and themes related to the geography where it is impossible to expect professorships.⁵³

Because it is not what higher education wants, students must be involved in massive learning activities because they are not involved in passive learning in obtaining information.⁵⁴ However, the learning model in the undergraduate market must be content-integrated and the old method to the new method so that there is a development of expertise from general to particular expertise with a system of mechanisms in social learning networks that are learning

⁴⁹ Thomas Wanner dan Edward Palmer, "Personalising learning: Exploring student and teacher perceptions about flexible learning and assessment in a flipped university course," *Computers & Education* 88 (2015): 354–69.

⁵⁰ Chou dan Chou, "Course management systems and blended learning."

⁵¹ Gwo-Jen Hwang dan Po-Han Wu, "Advancements and trends in digital game-based learning research: a review of publications in selected journals from 2001 to 2010," *British Journal of Educational Technology* 43, no. 1 (2012): E6–10.

⁵² Michael B. Horn dan Heather Staker, "The rise of K-12 blended learning," *Innosight institute* 5 (2011): 1–17.

⁵³ Larry B. Christensen dkk., "Research methods, design, and analysis," 2011.

⁵⁴ Kay Harman dan Nguyen Thi Ngoc Bich, "Reforming teaching and learning in Vietnam's higher education system," dalam *Reforming higher education in Vietnam* (Springer, 2010), 65–86.

communities with an understanding approach to aspects of concepts and applications ikat. Because learning in postgraduate learning solves problems in this blended way offers a complex dimension in which education in this market is planned with teaching that combines concepts and applications and connects with the outside world as an indicator of where learning in this way has been able to bring about a change that is believed through technology will make this possible.⁵⁵

Therefore, here again, later than investing to design technology wherever possible, to awaken important students and Gaiden profiles with the help of professionals in teaching and learning in investment environments, especially postgraduates. So success with blended learning supports different opportunities and opportunities that exist in this gallery allows an authentic evaluation where he will be able to distinguish which individual students are active and passive and facilitate evaluation between those who are not successful in completing tasks and obligations with traces of process content and output, all of which will be carried out if high, especially after being able to design balanced teaching strategies and methods between face-to-face in class and Line to Line learning on a computer on a computer.⁵⁶

This is not impossible considering the advantages and scope of the innovative and innovative technology that allows learning which so far has produced little manually but can be accelerated by using various learning sources, various sources of literature information, and various techniques for presenting data, evaluating data and compiling data and information.⁵⁷ With applications that are increasingly being used in postgraduate learning environments with a concentration on strengthening research-based and cooperative learning may occur online may occur offline cooperatives leave only a little time while online learning and cooperative learning allows this learning can be maximized by being more into a personalized learning model than students and also being innovative, it allows searching for data collection and reporting to be done quickly but still requires coordinating supervisors and also other assistance so that the impression of online and offline learning assisted by teachers in the classroom is possible, especially in postgraduate geography studies.⁵⁸

CONCLUSION

Finally, it is time for us to summarize the results from our study of understanding blended learning methods in the context of learning and geography in postgraduate studies. As for the essential components that we can convey, among others, the understanding of changing learning in the context of learning geography in the undergraduate market is the latest solution were, and this is a combination of traditional learning without online with dense learning or this learning media compared to the old method, this method following the demands and expectations of the output of higher education where the learning is independent learning with little supervision and supervision by lecturers.

⁵⁵ Shivangi Dhawan, "Online learning: A panacea in the time of COVID-19 crisis," *Journal of Educational Technology Systems* 49, no. 1 (2020): 5–22.

⁵⁶ Dhawan.

⁵⁷ Bart Clarysse, Mike Wright, dan Els Van de Velde, "Entrepreneurial origin, technological knowledge, and the growth of spin-off companies," *Journal of Management Studies* 48, no. 6 (2011): 1420–42.

⁵⁸ Thierry Rayna dan Ludmila Striukova, "From rapid prototyping to home fabrication: How 3D printing is changing business model innovation," *Technological Forecasting and Social Change* 102 (2016): 214–24.

Other points, such as blended learning, are suitable for dealing with the problem of a significant learning population where learning becomes effective because of the division between the theoretical way of learning in the classroom and the strategy of understanding how to use e-learning as a tangible manifestation. From high expectations of change, especially where the learning community must be independent, able to identify problems and challenges, ease of being able to find application solutions, and be able to make this electronic learning tool a solution that follows the demands of the situation where technology is not a new problem only used by a limited circle.

However, in this era, this digital innovation and technological revolution are applied by professionals outside of academia and become strategies for those ready to renovate and innovate learning in a modern way. Finally, land blended learning is a solution to the new century's transformation with the flexibility and effectiveness of learning technology. It can offer modern solutions in solving problems and issues of global competition where in the world with clothes they have been renovating and transforming their learning. From high school to college.

So, back to domestic contacts that blended learning is unmistakable because it is a typical learning combination of two traditional and modern methods so that it is possible for there to be theory and understanding in the context of learning in the classroom as well as transformation and innovation when academics work in a different learning area. Cutting-edge technology or, in other words, learning must be innovative, efficient, and productive. All of the above elements are the type of 21st-century learning which emphasizes aspects of efficiency, effectiveness, and productivity. Thus, we acknowledge that this study has many limitations. Therefore, this study hopes for various constructive inputs so that there will be improvements and developments in subsequent studies.

REFERENCES

- Agasisti, Tommaso, dan Geraint Johnes. "Efficiency, costs, rankings and heterogeneity: the case of US higher education." *Studies in Higher Education* 40, no. 1 (2015): 60–82.
- Al-Huneidi, Ahmad, dan Jeanne Schreurs. "Constructivism based blended learning in higher education." Dalam *World Summit on Knowledge Society*, 581–91. Springer, 2011.
- Aslan, Aslan. *HIDDEN CURRICULUM*. Pena Indis, 2019.
- Aslan, Aslan, Silvia Silvia, Budi Sulistiyo Nugroho, M. Ramli, dan Rusiadi Rusiadi. "TEACHER'S LEADERSHIP TEACHING STRATEGY SUPPORTING STUDENT LEARNING DURING THE COVID-19 DISRUPTION." *Nidhomul Haq: Jurnal Manajemen Pendidikan Islam* 5, no. 3 (21 November 2020): 321–33. <https://doi.org/10.31538/ndh.v5i3.984>.
- Azizan, Farahiza Zaihan. "Blended learning in higher education institution in Malaysia." Dalam *Proceedings of regional conference on knowledge integration in ICT*, 10:454–66, 2010.
- Azlan, Che Ahmad, Jeannie Hsiu Ding Wong, Li Kuo Tan, Muhammad Shahrin Nizam AD Huri, Ngie Min Ung, Vinod Pallath, Christina Phoay Lay Tan, Chai Hong Yeong, dan Kwan Hoong Ng. "Teaching and learning of postgraduate medical physics using Internet-based e-learning during the COVID-19 pandemic—A case study from Malaysia." *Physica Medica* 80 (2020): 10–16.

- Bahri, Arsad, Irma Suryani Idris, Hasmunarti Muis, Muh Arifuddin, dan Muh Fikri. "Blended Learning Integrated with Innovative Learning Strategy to Improve Self-Regulated Learning." *International Journal of Instruction* 14, no. 1 (2021): 779–94.
- Benson, Vladlena, dan Ailsa Kolsaker. "Instructor approaches to blended learning: A tale of two business schools." *The International Journal of Management Education* 13, no. 3 (2015): 316–25.
- Bhowmik, Jahar, Denny Meyer, dan Brian Phillips. "Using Blended Learning in Postgraduate Applied Statistics Programs." *Turkish Online Journal of Distance Education* 20, no. 2 (2019): 64–77.
- Boelens, Ruth, Stijn Van Laer, Bram De Wever, dan Jan Elen. "Blended learning in adult education: towards a definition of blended learning," 2015.
- Castro, Robin. "Blended learning in higher education: Trends and capabilities." *Education and Information Technologies* 24, no. 4 (2019): 2523–46.
- Chou, Amy Y., dan David C. Chou. "Course management systems and blended learning: An innovative learning approach." *Decision Sciences Journal of Innovative Education* 9, no. 3 (2011): 463–84.
- Christensen, Larry B., Burke Johnson, Lisa Anne Turner, dan Larry B. Christensen. "Research methods, design, and analysis," 2011.
- Clarysse, Bart, Mike Wright, dan Els Van de Velde. "Entrepreneurial origin, technological knowledge, and the growth of spin-off companies." *Journal of Management Studies* 48, no. 6 (2011): 1420–42.
- Costello, Ellen, Mary A. Corcoran, Jacqueline S. Barnett, Marisa C. Birkmeier, Rhea Cohn, Ozgur Ekmekci, Nancy L. Falk, Thomas Harrod, Debra Herrmann, dan Sean Robinson. "Information and communication technology to facilitate learning for students in the health professions: Current uses, gaps, and future directions." *Online learning: Official Journal of the Online Learning Consortium* 18 (2014).
- De Leeuw, R. A., Michiel Westerman, E. Nelson, J. C. F. Ket, dan F. Scheele. "Quality specifications in postgraduate medical e-learning: an integrative literature review leading to a postgraduate medical e-learning model." *BMC medical education* 16, no. 1 (2016): 1–10.
- Dhawan, Shivangi. "Online learning: A panacea in the time of COVID-19 crisis." *Journal of Educational Technology Systems* 49, no. 1 (2020): 5–22.
- Everson, Izora M. "Implementation of Blended Learning Following a Yearlong Professional Development Program: A Descriptive Case Study." PhD Thesis, Johns Hopkins University, 2019.
- Fethullah, Gulen. "Education from cradle to grave - Fethullah Gülen's Official Web Site." Diakses 28 Mei 2019. <https://fgulen.com/en/fethullah-gulens-works/toward-a-global-civilization-of-love-and-tolerance/education/25271-education-from-cradle-to-grave>.
- Fifi, Nofiaturrehman. "Model Pendidikan Karakter di Pesantren (Studi Pondok Pesantren Al-Munawwir Krapyak dan Muallimin Muallimat Yogyakarta)." Doctoral, UIN Sunan Kalijaga, 2015. <http://digilib.uin-suka.ac.id/23812/>.

- Graham, Charles R., Wendy Woodfield, dan J. Buckley Harrison. "A framework for institutional adoption and implementation of blended learning in higher education." *The internet and higher education* 18 (2013): 4–14.
- Harman, Kay, dan Nguyen Thi Ngoc Bich. "Reforming teaching and learning in Vietnam's higher education system." Dalam *Reforming higher education in Vietnam*, 65–86. Springer, 2010.
- Harper, Kyle. *Slavery in the late Roman world, AD 275–425*. Cambridge University Press, 2011.
- Hendriarto, Prasetyono, Aslan Aslan, Mardhiah, Rahmat Sholihin, dan Wahyudin. "The Relevance of Inquiry-Based Learning in Basic Reading Skills Exercises for Improving Student Learning Outcomes in Madrasah Ibtidaiyah." *At-Tajdid: Jurnal Pendidikan Dan Pemikiran Islam* 5, no. 01 (15 Juni 2021): 28–41. <https://doi.org/10.24127/att.v5i01.1473>.
- Herath, Chulani, Yangfeng Zhou, Yong Gan, Naomie Nakandawire, Yanghong Gong, dan Zuxun Lu. "A comparative study of interprofessional education in global health care: a systematic review." *Medicine* 96, no. 38 (2017).
- Horn, Michael B., dan Heather Staker. "The rise of K-12 blended learning." *Innosight institute* 5 (2011): 1–17.
- Hwang, Gwo-Jen, dan Po-Han Wu. "Advancements and trends in digital game-based learning research: a review of publications in selected journals from 2001 to 2010." *British Journal of Educational Technology* 43, no. 1 (2012): E6–10.
- James, Nalita. "The learning trajectories of 'old-timers': Academic identities and communities of practice in higher education." Dalam *Communities of Practice*, 141–53. Routledge, 2013.
- Jiang, Wei, Ziwei Song, Jinyu Zhan, Zhiyuan He, Xiangyu Wen, dan Ke Jiang. "Optimized co-scheduling of mixed-precision neural network accelerator for real-time multitasking applications." *Journal of Systems Architecture* 110 (2020): 101775.
- Jones, Kevin Anthony, dan Ravi S. Sharma. "An experiment in blended learning: Higher education without lectures?" *International Journal of Digital Enterprise Technology* 1, no. 3 (2019): 241–75.
- Khan, Asif Irshad, Mahaboob Sharief Shaik, Abdullah Maresh Ali, dan Ch Vijaya Bebi. "Study of blended learning process in education context." *International Journal of Modern Education and Computer Science* 4, no. 9 (2012): 23.
- Lickona, Thomas. *Educating for Character: How Our Schools Can Teach Respect and Responsibility*. New York: Bantam Books, 2009.
- Lloyd-Smith, Laura. "Exploring the advantages of blended instruction at community colleges and technical schools." *MERLOT Journal of Online Learning and Teaching* 6, no. 2 (2010): 508–15.
- López-Pérez, M. Victoria, M. Carmen Pérez-López, dan Lázaro Rodríguez-Ariza. "Blended learning in higher education: Students' perceptions and their relation to outcomes." *Computers & education* 56, no. 3 (2011): 818–26.
- Ma`arif, Muhammad Anas, dan Ari Kartiko. "Fenomenologi Hukuman di Pesantren : Analisis Tata Tertib Santri Pondok Pesantren Daruttaqwa Gresik." *Nadwa* 12, no. 1 (22 Juni 2018): 181–96. <https://doi.org/10.21580/nw.2018.12.1.1862>.

- Malagon-Maldonado, Gabriella. "Qualitative research in health design." *HERD: Health Environments Research & Design Journal* 7, no. 4 (2014): 120–34.
- Moskal, Patsy, Charles Dziuban, dan Joel Hartman. "Blended learning: A dangerous idea?" *The Internet and Higher Education* 18 (2013): 15–23.
- Myllymäki, Mikko, dan Ismo Hakala. "Video-based blended learning practice in master studies." *learning* 1, no. 3 (2013): 4.
- Okaz, Abeer Ali. "Integrating blended learning in higher education." *Procedia-Social and Behavioral Sciences* 186 (2015): 600–603.
- Oun, Musab A., dan Christian Bach. "Qualitative research method summary." *Qualitative Research* 1, no. 5 (2014): 252–58.
- Owston, Ron, Dennis York, dan Susan Murtha. "Student perceptions and achievement in a university blended learning strategic initiative." *The internet and higher education* 18 (2013): 38–46.
- Pazio, Monika. "Blended learning and its potential in expanding vocabulary knowledge: A case study." *Teaching English with Technology* 10, no. 1 (2010): 3–30.
- Picciano, Anthony G., Charles Dziuban, dan Charles R. Graham. *Blended learning*. Routledge, 2014.
- Putra, Purniadi dan Aslan. "PENGEMBANGAN BAHAN AJAR BERBASIS IMTAQ DAN IPTEK DI ERA REVOLUSI INDUSTRI 4.0 PADA MATA PELAJARAN SAINS MADRASAH IBTIDAIYAH." *Ta'Limuna: Jurnal Pendidikan Islam* 9, no. 1 (30 Maret 2020): 1–15. <https://doi.org/10.32478/talimuna.v9i1.345>.
- Putra, Purniadi, Fahrina Yustiasari Liriwati, Tasdin Tahrim, Syafrudin Syafrudin, dan Aslan Aslan. "The Students Learning from Home Experiences during Covid-19 School Closures Policy In Indonesia." *Jurnal Iqra': Kajian Ilmu Pendidikan* 5, no. 2 (5 September 2020): 30–42. <https://doi.org/10.25217/ji.v5i2.1019>.
- Putra, Purniadi, Hilmi Mizani, Abdul Basir, Ahmad Muflihin, dan Aslan Aslan. "The Relevancy on Education Release Revolution 4.0 in Islamic Basic Education Perspective in Indonesia (An Analysis Study of Paulo Freire's Thought)." *Test Engineering & Management* 83 (2020): 10256–63.
- Qu, Sandy Q., dan John Dumay. "The qualitative research interview." *Qualitative research in accounting & management*, 2011.
- Ratislavová, Kateřina, dan Jakub Ratislav. "Asynchronous email interview as a qualitative research method in the humanities." *Human Affairs* 24, no. 4 (2014): 452–60.
- Rayna, Thierry, dan Ludmila Striukova. "From rapid prototyping to home fabrication: How 3D printing is changing business model innovation." *Technological Forecasting and Social Change* 102 (2016): 214–24.
- Rosenbaum, Paul-Erik Lillholm, Øyvind Mikalsen, Henning Lygre, Einar Solheim, dan Jan Schjøtt. "A blended learning course design in clinical pharmacology for post-graduate dental students." *The open dentistry journal* 6 (2012): 182.
- Saadati, Farzaneh, Rohani Ahmad Tarmizi, Ahmad Fauzi Mohd Ayub, dan Kamariah Abu Bakar. "Effect of internet-based cognitive apprenticeship model (i-CAM) on statistics learning among postgraduate students." *PloS one* 10, no. 7 (2015): e0129938.

- Şahin, Mehmet. "Blended learning in vocational education: An experimental study." *International Journal of Vocational and Technical Education* 2, no. 6 (2010): 95–101.
- Shea, Peter, dan Temi Bidjerano. "Learning presence: Towards a theory of self-efficacy, self-regulation, and the development of a communities of inquiry in online and blended learning environments." *Computers & education* 55, no. 4 (2010): 1721–31.
- Singh, Harvey. "Building effective blended learning programs." Dalam *Challenges and Opportunities for the Global Implementation of E-Learning Frameworks*, 15–23. IGI Global, 2021.
- Siripongdee, Kobchai, Paitoon Pimdee, dan Somkiat Tuntiwongwanich. "A blended learning model with IoT-based technology: effectively used when the COVID-19 pandemic?" *Journal for the Education of Gifted Young Scientists* 8, no. 2 (2020): 905–17.
- Smyth, Siobhan, Catherine Houghton, Adeline Cooney, dan Dympna Casey. "Students' experiences of blended learning across a range of postgraduate programmes." *Nurse education today* 32, no. 4 (2012): 464–68.
- Sudarmo, Sudarmo, Ardian Arifin, Petrus Jacob Pattiasina, Vani Wirawan, dan Aslan Aslan. "The Future of Instruction Media in Indonesian Education: Systematic Review." *AL-ISHLAH: Jurnal Pendidikan* 13, no. 2 (31 Agustus 2021): 1302–11. <https://doi.org/10.35445/alishlah.v13i2.542>.
- Tamim, Rana M. "Blended learning for learner empowerment: Voices from the Middle East." *Journal of Research on Technology in Education* 50, no. 1 (2018): 70–83.
- Tayebinik, Maryam, dan Marlia Puteh. "Blended Learning or E-learning?" *arXiv preprint arXiv:1306.4085*, 2013.
- Torrise-Steele, Geraldine, dan Steve Drew. "The literature landscape of blended learning in higher education: The need for better understanding of academic blended practice." *International Journal for Academic Development* 18, no. 4 (2013): 371–83.
- Wanner, Thomas, dan Edward Palmer. "Personalising learning: Exploring student and teacher perceptions about flexible learning and assessment in a flipped university course." *Computers & Education* 88 (2015): 354–69.
- Wu, Jen-Her, Robert D. Tennyson, dan Tzyh-Lih Hsia. "A study of student satisfaction in a blended e-learning system environment." *Computers & Education* 55, no. 1 (2010): 155–64.
- Yustina, Y., W. Syafii, dan R. Vebrianto. "The effects of blended learning and project-based learning on pre-service biology teachers' creative thinking through online learning in the Covid-19 pandemic." *Jurnal Pendidikan IPA Indonesia* 9, no. 3 (2020): 408–20.