NEEDS ASSESSMENT OF BLENDED LEARNING BASED ISLAMIC EDUCATION ON HIGHER ISLAMIC EDUCATION SAMARINDA

Agus Setiawan
Institut Agama Islam Negeri (IAIN) Samarinda
agus.rdat@gmail.com

Abstract

This research aims to determine the potential and needs of lecturers and students in PAI learning which will be applied with the blended learning strategy. This research is a descriptive research with triangulation method and data sources. Data was collected through preliminary observations, analysis of students condition got from survey results (google form online) to 21 students from 4 faculties and several study programs, and interviews (lecturers and students). As for the data analysis used by adopting models from Miles, Huberman and Saldana, namely with three steps: data reduction, data display and withdrawal of conclusion data. The results of the study state that the potential and needs based on need assessment at IAIN Samarinda are: 1) the blended learning model is indispensable for the current technological development conditions at IAIN Samarinda, and on the achievements of KKNI in implementing learning with ICT, 2) survey results through google online form states that the analysis of student needs for innovative and interesting learning is 100% and student opinions about the learning needs of blended learning at IAIN Samarinda is 81%. 3) the expectations of this assessment need are: a) the blended learning model should have been implemented at university by looking at technological developments, b) the need for a complete module on blended learning (including RPS, learning devices, e-learning and evaluation) so that the implementation can be achieved, c) pedagogical socialization of blended learning to lecturers and students, d) facilities and infrastructure, e) and policies regarding the implementation of blended learning.The implication of this research could be a reference for other researchers to develop blended learning model in higher education.

Abstrak

Penelitian ini bertujuan untuk mengetahui potensi dan kebutuhan dosen maupun mahasiswa dalam pembelajaran PAI yang akan diterapkan dengan strategi *blended learning*. Penelitian ini merupakan jenis penelitian deskriptif dengan triangulasi metode dan sumber data. Data dikumpulkan melalui observasi awal, analisis kondisi mahasiswa hasil survey (*google form online*) kepada 21 mahasiswa dari 4 fakultas dan beberapa prodi, serta wawancara (dosen dan mahasiswa). Adapun untuk analisa data digunakan dengan mengadopsi model dari Miles, Huberman dan Saldana, yaitu dengan tiga langkah: reduksi data, display data serta penarikan data kesimpulan akhir. Hasil penelitian menyebutkan bahwa potensi dan kebutuhan berdasarkan pada *need assessment* di IAIN Samarinda adalah: 1) model *blended learning* sangat diperlukan untuk kondisi perkembangan teknologi saat ini di IAIN Samarinda, begitupula pada capaian dari KKNI dalam pelaksanan pembelajaran dengan ICT, 2) hasil survey melalui *google form online* menyebutkan bahwa analisis kebutuhan mahasiswa terhadap pembelajaran inovatif dan menarik sebesar 100% dan pendapat mahasiswa mengenai kebutuhan pembelajaran *blended learning* di IAIN Samarinda adalah sebesar 81%. 3) harapan dari need assessmen ini adalah: a) pembelajaran model *blended learning* seharusnya sudah bisa dilaksanakan oleh lembaga kampus dengan menilik pada perkembangan teknologi, b) perlu adanya modul yang lengkap mengenai *blended learning* (termasuk RPS, perangkat pembelajaran, e-learning dan evaluasi) sehingga dalam pelaksanaan bisa tercapai, c) sosialisasi pedagogik *blended learning* kepada dosen dan mahasiswa, d) sarana dan prasarana, e) serta kebijakan mengenai pelaksanaan *blended learning*. Implikasinya adalah bahwa penelitian ini bisa menjadi rujukan bagi peneliti lain untuk pengembangan model *blended learning* di perguruan tinggi.

Introduction

The changing phenomenon student learning styles is for the tendency of students as digital native. The tendency is caused by undirected use of internet by students, so that its use not useful and not academic. Prensky[1], in his research defines digital native as those who navigate websites while looking for hyperlinks to reach certain goals rather than reading logically from the top of a computer screen, those who download free content rather than buy it, those who watch via smartphones, laptop or computer rather than doing via television.

In line with Endah Tri Priyatni et al[2], also said that students are now in the Z generation. Generation Z itself means people who are born and grow with technology, use it as a communication interaction. The learning process of Generation Z requires more academic skills than traditional learning, they must be able to use the latest technology, be able to collaborate, communicate with friends, have a critical attitude, active creative skills, to solve student learning problems. But it also does not abandon the concept of Islamic education in this generation. Like wise Naidu[3] said that the increased use of electronic libraries, multimedia courseware and computer-mediated communication gave rise to an educational experience on the use of technology.

If you observe at education from around the world, for example Japan, which has been using technology in its education for several years. At present their focus differs from Indonesia. If Indonesia is still adapting to the 4.0 industrial revolution, Japan is one step ahead, namely to focus on Smart Society 5.0. So precisely in January 2019, Japanese Prime Minister Shinzo Abe introduced the concept of Super Smart Society 5.0.[4] At a meeting in Germany in March 2019, Abe explained his vision to the world. Through Super Smart Society 5.0, artificial intelligence that pays attention to the human side will transform millions of data collected through the internet in all areas of

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[1] M. Prensky, "Digital Natives, Digital Immigrants, Part 1," *On The Horizon* Volume 9, no. 5, (2001): h. 1.

[2] Endah Tri Priyatni dkk, *Pembelajaran Reflektif Model Pembelajaran Reflektif yang Responsif Teknologi* (Tangerang: Tira Smart, 2017).

[3] Som Naidu, *Learning and Teaching with Technology: Principles and Practices (Open and Distance Learning Series)* (London: Kogan Page Limited, 2002), p. 1.

[4] "Making Indonesia 4.0 Tak Kalah Dari Super Smart Society 5.0 | Teknologi," Bisnis.com, diakses 20 Oktober 2019, https://teknologi.bisnis.com/read/20190711/84/1123147/making-indonesia-4.0-tak-kalah-dari-super-smart-society-5.0.

life. [5] "Era society 5.0 requires students and society to think critically and constructively.[6]

The world of education must be friendly with the era of society 5.0, the world of education needs to prepare and improve its competence, such as having a strong character, especially in leadership skills, IT Literacy skills as a key feature of the era of society 5.0.[7] The concept of Industry 4.0 towards Society 5.0, especially in the development of young people with character, has human and national values.[8]

Researchers think the implications of these innovations will change the shape of the learning process that previously retained traditional learning towards more flexible learning, namely mixed learning or blended by utilizing human and communication and information technology as a source of learning as a challenge to the industrial revolution 4.0. According to Rahman Fauzan[9] the industrial revolution 4.0 has characteristics that combine human and computer development. Explained by Dabbagh[10], technology is developing very rapidly for connections such as worldwide web (www) as information without territorial boundaries and time, as well as infinite information, also started in the 21st century.

Previously, e-learning was a new innovation in education according to Harley & Knight research[11] stated that e-learning was a learning condition that made it possible to deliver teaching materials to students using internet media, intranet or computer network media. Currently, e-learning which has been left behind and instead found weaknesses, such as findings of Erika Kusumaputri[12], about e-learning in universities has not produced a holistic model in involving all aspects of the organization to support

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[5] BeritaSatu.com, "In Industry 4.0 Era, Japan Has Entered Society 5.0," beritasatu.com, accessed October 20, 2019, https://www.beritasatu.com/ekonomi/534519/di-era-industry-40- japan-has-entered-society-50.

[6] Mediaindonesia com developer, "All Education Activists Are Asked To Prepare For Era Era Society 5.0," September 13, 2019, https://mediaindonesia.com/read/detail/259270-el whole-pegiat-pendat-dinta-for-perform-era-era-era-- society-50.

[7] "Inovasi Pendidikan Islam, FTIK IAIN Batusangkar Siapkan Era Society 5.0," *Media Harapan* (blog), 24 September 2019, https://mediaharapan.com/inovasi-pendidikan-islam-ftik-iain-batusangkar-siapkan-era-society-5-0/.

[8] "Sinergi Teknologi Dan Pendidikan Masyarakat | Portal Berita Unika Soegijapranata," diakses 21 Oktober 2019, http://news.unika.ac.id/2019/08/sinergi-teknologi-dan-pendidikan-masyarakat/.

[9] Rahman Fauzan, "Karakteristik Model Dan Analisa Peluang-Tantangan Industri 4.0," *PHASTI* 4, no. 01 (25 Mei 2018): 1–11.

[10] Dabbagh Nada dan Brenda B. Ritland B.B, *Online Learning: Concepts, Strategies and Application* (New Jersey, USA: Merril Prentice Hall, Pearson Education Inc, 2005), h. 97.

[11] J. Harley dan Knight, *Co-Operative Inquiry: Research into the Human Condition* (London: Sage Pub, 1996), h. 97.

[12] Erika Kusumaputri, "Program Holistik E-learning Di Perguruan Tinggi IslamJurnal Humanitas," *Jurnal Humanitas* VIII, no. 1 (2011): 64.

the implementation of e-learning implementation. So, to overcome the e-learning problem, a mixture of learning arises in the process of lecturer and student interaction called blended learning. It is time for rapidly developing technology to be ideally followed with the creation of new models that are more effective and efficient, namely the blended learning model. The model is a variety of terminologies such as stand alone course, virtual classroom, embedded learning, car learning.[13]

Conceptually Litlejohn & Pegler[14] revealed that blended learning did not necessarily combine face-to-face lectures and distance online lectures, but the holistic integration of various learning sources. So being more effective, Munir[15] divides the percentage in blended learning with a composition of 50% *face to face* and 50% *online*, or 75 compared to 25, i.e. 75% face to face and 25% done with *online*.

According to Garrison and Vaughan define blended learning as a new approach is a mixture of classrooms / face-to-face and online activities consistent with certain goals. The proportion of face-to-face and online learning activities can vary.[16] According to Kaye Thorne and David Mackey[17], blended learning is a mixed learning that utilizes multimedia technology, CD-ROM, virtual classrooms, voice-mail, e-mail, video streaming. While Catlin R. Tucker, [18] "Blended learning is a cohesive unity, meaning that it combines or combines traditional face-to-face learning with the Online component". Francine S. Glazer, [19]"Blended learning is a mix of face-to-face learning process with online, so it becomes a unique learning experience".

Based on above explanation, the researcher needs to examine a need and opportunity regarding blended learning in higher education. Has it been implemented or it needs a needs analysis to support the practical blended learning model to be more effective and practical for the future learning needs of higher education in Indonesia.

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[13] Horton William, *E-Learning by Design* (San Fransisco, CA: Pfeiffer: John Wiley & Sons, Inc, 2006), h. 2.

[14] Allison Littlejohn and Chris Pegler, *Preparing for Blended e-Learning (Connecting With E-Learning)*, (New York: Routledge, 2007), h. 1.

[15] Munir, *Pembelajaran Digital* (Bandung: Alfabeta, 2017), h. 64.

[16] D. Randy Garrison dan Norman D. Vaughan, *Blended Learning in Higher Education, Framerork, Principles, and Guidlines* (US San Fancisco: Jossey-Bass, 2008), h. 6.

[17] Kaye Thorne and David Mackey, *Everything You Ever Needed to Know About Training* (London: Kogan Page Publisher, tt), h. 113.

[18] Catlin R Tucker, *Blended Learning in Grades 4–12* (London: Corwin Press, 2012), h. 11.

[19] Francine S Glazer, *Blended Learning* (Virginia: Stylus Publishing, 2012), h. 1.

Research Method

This research was a descriptive research with triangulation of methods and data sources. Data was collected through preliminary observations, analysis of the condition of students survey results *(google form online)* to 21 students from 4 faculties and several study programs, and interviews (lecturers and students). As for the data analysis used by adopting models from Miles, Huberman and Saldana, namely with three steps: data reduction, data display and withdrawal of conclusion data.

Research Findings

Based on the results of a survey conducted by researchers through google online form to analyze student needs for the blended learning model, given in online to 21 students from 4 faculties and several study programs, then obtained response data that students need innovative learning and interesting around 100%.

The following description of the results of a survey conducted by researchers:
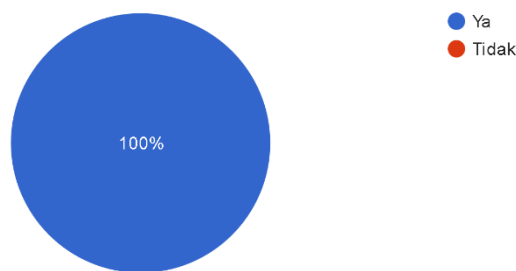

Figure 1. Survey results regarding learning innovation

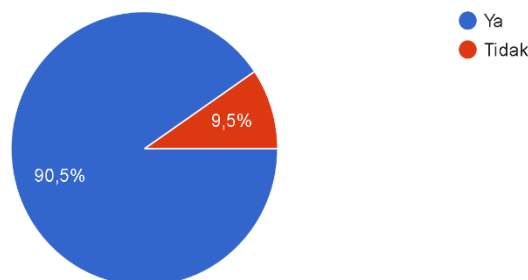Around 81% of students need the blended learning model at IAIN Samarinda.[20]

Figure 2. Survey results regarding the need for blended learning

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[20] *Pengembangan Model Blended Learning Berbasis Pendidikan Holistik Di Iain Samarinda*, diakses 3 Agustus 2018,
https://docs.google.com/forms/d/e/1FAIpQLSeoiJHBHUHrjKLz6nnp1heMqgBLGYpO4q8IG0NqqHpnr4Ojng/viewform?usp=drive_web&usp=embed_facebook.

The students also answered that the need for learning innovations using technology to be more motivated and interesting to follow. Here are the results of the graph:
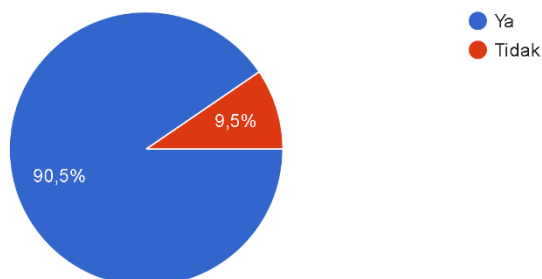

Figure 3. Survey results on technology-based learning innovations

Researchers also interviewed with IAIN Samarinda students, which revealed that: 1) students' motivation and learning outcomes were still lacking because the learning process carried out was conventional and did not utilize existing technology, lecturers only gave lecture methods and group discussion materials, 2) students seems still less active in the discussion. 3) One lecturer said that the RPS was different between lecturers supporting courses in the development of PAI teaching materials, so the learning outcomes were not the same.[21]

Thus the results of observations and interviews and questionnaires above, provide an overview of the needs and opportunities that can be utilized for the development of the blended learning model in universities, especially in IAIN Samarinda. To be analyzed based on the results of need assessment in the field. It can be described as follows:

Description of Problem Identification

At this stage, it conducted identification of problems related to the low interest of students and learning outcomes in development of PAI teaching materials course. Therefore, researchers can describe the findings of observations:

a) Independence in learning, motivation and student learning outcomes in the Islamic Religious Education Program FTIK IAIN Samarinda still lack. The expected learning to students has not been fulfill the independence and motivation of

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[21] Imroh Atul Musfirah, Wawancara dengan Responden sebagai Sekretaris Jurusan dan Dosen Mata Kuliah Pengembangan Bahan Ajar PAI, Oktober 2018.

students. It refers to several tasks given by lecturers to students carried out is not optimal.

b) The development of PAI teaching materials course in the learning process takes place less interactive and communicative.

c) Lecturers of the PAI teaching material development course do not provide modules, so students find it difficult to understand the material or teaching materials independently.

d) In the learning process, there are several lecturers who have implemented online learning by using media such as google class and Edmodo applications, but this is not yet optimal. Actually, IAIN Samarinda has provided learning web tools based on moodle which can be utilized by lecturers and students in learning online since 2016 and tested in 2019. Lecturer enthusiasm was also seen in online learning to train with the workshop about online-based learning held by LPM IAIN Samarinda which supports online learning by lecturers in learning. But there is no practical guide to support the online learning activities.

e) The media used by lecturers for the development of teaching materials is still minimal to attract students' attention..

Some research findings in several journals also suggest that the conventional learning process causes students to become less independent and the consequences will be seen in the learning outcomes that are less than the maximum. Conventional methods have weaknessess, including students only being listeners for the information conveyed by the lecturer. Students are not independent to find their own literacy knowledge. Students are less involved in the learning process, less space is given to sharp their abilities.

Based on the findings of observations and empirical data searching from several journals, a solution is needed to develop a learning model to explore the ability of students, independent and able to solve their own learning problems.

Identification of Purpose

From some identification problems of the observations above, the researchers then determined the objectives of product development in the form of practical learning models. The purpose of developing the blended learning model based on modification

of learner behavior is to motivate, improve the ability of independent and student learning outcomes for development of PAI teaching materials course.

PAI Teaching Material Learning Plan

In order to follow the academic procedures at IAIN Samarinda, it requires each lecturer to make a RPS as learning to plan courses for the development of PAI teaching materials for one semester. RPS is made by lecturers as part of teaching materials given to students during the initial lecture. RPS is given to students. Based on the data, the RPS of 4 lecturers holding courses in the development of PAI teaching materials looks different in the formulation of RPS. It revealed this in the results of an interview with one lecturer that the RPS were different so the learning outcomes were not the same.

Analysis of several RPS subjects for the development of PAI teaching materials used by lecturers shows that in lectures conducted through the formulation of learning objectives, which in RPS are referred to as competency standards and basic competencies. The formulation of the learning objectives of the PAI teaching materials development course leads to fostering student creativity to make PAI teaching materials with their scope in a practical and effective manner. However, the lecture takes place in a monotonous and unidirectional manner so it has not yet led to the desired learning outcomes at the RPS.

Needs Analysis

According to M. Atwi Suparman that needs analysis is done by tracing the learning process, students' needs and expectations that will be achieved through the learning process.[22] Thus, through this needs analysis selected problems faced to find a solution to the solution by providing important information to determine suitable interventions.

Based on the analysis of findings, it can be stated that learning courses for the development of PAI teaching materials require the innovation to improve learning, current millennial generation students can follow which. Conventional learning by face to face only touches the cognitive or affective level, while at the level of other fields such as psychomotor has not contributed to an increase in student independence.

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[22] Atwi Suparman, *Desain Instruksional Modern*, 4 ed. (Jakarta: Erlangga, 2014).

Therefore PAI learning is oriented to mixed learning which can motivate and improve students' independence in development PAI teaching materials course.

Discussion

Implementing the blended learning in higher education has become the reason for the need of a need assessment before the development of the model is realized. The blended learning model experts have created that can be a reference for changing the blended learning model suitable for the needs of the higher education especially at IAIN Samarinda, so there needs to be an analysis of field needs.

From some references, books and articles mention the advantages of blended learning model. It also is the reason for researchers to innovate in developing existing models by adopting them. These strengths can be proven by the success of blended learning into current learning trends including those that can be reviewed by researchers namely blended learning provides a more effective learning process[23], more practical[24], strengthens conventional learning[25], learning is more open and flexible[26], problem solving learning[27], learning independence[28], constructivist learning[29], cognitive learning[30], more effective learning[31], learning skills increase[32], learning more integrated

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[23] Hansi Effendi, "Model Blended Learning Interaktif Berbasis Web Mata Kuliah Mesin-Mesin Listrik di Fakultas Teknik" (Disertasi, Universitas Negeri Padang, 2015).

[24] Bilqis Firyal Nabilah, "Pengembangan Tutorial Digital Merancang Kelas Maya dengan Blended Learning untuk Guru SMAK Cor Jesu Malang" (Tesis, Pascasarjana Universitas Negeri Malang, 2015).

[25] Ahmad Kholiqul Amin, "KAJIAN KONSEPTUAL MODEL PEMBELAJARAN BLENDED LEARNING BERBASIS WEB UNTUK MENINGKATKAN HASIL BELAJAR DAN MOTIVASI BELAJAR," *Jurnal Pendidikan Edutama* 4, no. 2 (19 Juli 2017): 51–64, https://doi.org/10.30734/jpe.v4i2.55.

[26] Agus Purnomo, Nurul Ratnawati, dan Nevy Farista Aristin, "Pengembangan Pembelajaran Blended Learning Pada Generasi Z," *Jurnal Teori dan Praktis Pembelajaran IPS* 1, no. 1 (2016).

[27] Wasis D. Dwiyogo, "Analisis Kebutuhan Pengembangan Model Rancangan Pembelajaran Berbasis Blended Learning (PBBL) Untuk Meningkatkan Hasil Belajar Pemecahan Masalah," *Jurnal Pendidikan Dan Pembelajaran (JPP)* 21, no. 1 (April 2015): 71–78.

[28] I. Made Hermawan Surya Putra dkk., "PENGARUH PENERAPAN BLENDED LEARNING BERBASIS WHITEBOARD ANIMATION VIDEO TERHADAP PRESTASI BELAJAR MATEMATIKA SISWA KELAS XI MIA SMA NEGERI 4 SINGARAJA," *Jurnal Pendidikan Matematika Undiksha* 3, no. 1 (Agustus 2015), https://ejournal.undiksha.ac.id/index.php/JJPM/article/view/5769.

[29] I. Made Kirna, "PENGEMBANGAN KONTEN ONLINE UNTUK MENDUKUNG BLENDED LEARNING PADA PERKULIAHAN KIMIA KUANTUM DASAR," *Cakrawala Pendidikan* 2, no. 2 (Agustus 2014), https://doi.org/10.21831/cp.v2i2.2146.

[30] Rini Budiharti dkk., "PENGGUNAAN BLENDED LEARNING DENGAN MEDIA MOODLE UNTUK MENINGKATKAN KEMAMPUAN KOGNITIF SISWA SMP," *Cakrawala Pendidikan* 1, no. 1 (April 2015), https://doi.org/10.21831/cp.v1i1.4184.

[31] Naeem Makhdoom et al., "Blended Learning as an Effective Teaching and Learning Strategy in Clinical Medicine: a Comparative Cross-Sectional University Based Study," Journal of Taibah University Medical Sciences 8, no. 1 (2013): h. 12-17.

in team teaching[33], an easier interaction with students by utilizing the learning environment[34], increasing student learning interest[35], prospects for learning efficient future[36], learning by overcoming problems in learning and communication skills[37], learning that involves more students.[38]

Likewise, the support of the KKNI curriculum which is often understood is related to the following main components; student content and resources, student activities and collaboration, assessments, course communications, and management and administration. In the learning process at PTKI, the KKNI design introduces learning that has an interactive, holistic, integrative, scientific, contextual, thematic, effective, collaborative, student-centered, and application of ICT in learning.[39] Among the ten learning processes, the main reason for this research is the tenth criterion, which is ICT-based learning. The application of ICT in learning described in PTKI curriculum development guidelines referring to the 2018 KKNI and SN-Dikti is as mixed learning called hybrid learning/blended learning. This learning combines conventional learning styles with mastery of ICT.

According to government regulations regarding religious education is education about the transformation of knowledge and shape the behavior, personality, and students in practicing the teachings of their religion which is carried out at least through subjects or courses at all lines, levels and types of education.[40] Also specifically higher education according to government regulation number 46 of 2019 concerning religious education chapter 1 article 1 states that "education is a conscious and planned effort to create an

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[32] Angel K. Chen et al., "Teaching Interprofessional Collaborative Care Skills Using a Blended Learning Approach," Journal of Interprofessional Education & Practice 8 (2017): h. 86–90.

[33] Renée Crawford and Louise Jenkins, "Blended Learning and Team Teaching: Adapting Pedagogy in Response to the Changing Digital Tertiary Environment, "Australasian Journal of Educational Technology 33, no. 2 (2017): h. 51-57.

[34] Zaharah dkk Hussin, "Kajian Model Blended Learning Dalam Jurnal Terpilih: Satu Analisa Kandungan," *JuKu: Jurnal Kurikulum & Pengajaran Asia Pasifik* 3, no. 1 (2015).

[35] Saeed Mazloumiyan et al., "Blended E-Learning a New Approach to Environmental Education of Iran's High Schools," *Procedia - Social and Behavioral Sciences* 47, (2012): h. 1216-1220.

[36] Liliana Cuesta Medina, "Blended Learning: Deficits and Prospects in Higher Education, "Australasian Journal of Educational Technology 34, no. 1 (2018): h. 42-56.

[37] Anna Buran and Arina Evseeva, "Prospects of Blended Learning Implementation at Technical University," *Procedia - Social and Behavioral Sciences* 206, (2015): h. 177–82.

[38] Kemran Mestan, "Create a Fine Blend: An Examination of Institutional Transition to Blended Learning, "Australasian Journal of Educational Technology 35, no. 1 (2018): h. 70–84.

[39] Ditjen Pendidikan Islam, "Buku Panduan Pengembangan Kurikulum PTKI Mengacu pada KKNI dan SN-Dikti" (Jakarta: Kementerian Agama Republik Indonesia, 2018).

[40] "Peraturan Pemerintah (PP) Republik Indonesia Nomor 55 Tahun 2007 tentang Pendidikan Agama dan Pendidikan Keagamaan," 2007.

atmosphere of learning and learning process so that students actively develop their potential to have power spiritual religion, self-control, personality, intelligence, noble character, and what is needed by himself, society, nation and state ".[41]

In achieving the competency standards of graduates in the regulation of Republic of Indonesia, Minister of Research and Technology as a description of the achievement of KKNI learning which contains 4 elements namely attitude, work ability, knowledge mastery, and authority/responsibility.[42] The learning system in higher education must refer to these rules, to realize a study program based on the higher education curriculum, namely KKNI, so that it can realize the learning process and instructional objectives.

As a supporter of implementing the KKNI-based learning process, Zaki[43] argues that blended learning is the most appropriate solution applied in the world of education, especially in higher education. The learning indicator blended besides face to face which is a classic learning model, online can a model that reinforces student learning. So, if you observe from the Indonesian National Qualification Framework (KKNI), one SKS is 50 minutes face to face, the next 50 minutes is an independent task and the next 50 minutes is a structured task. Badrul Khan[44] even offers an octagonal framework which includes eight elements: (1) pedagogical, (2), technology, (3) design of *interface*, (4) evaluation, (5) management, (6) resource support, and (7) ethics, (8) institutional. Khan explained the blended learning model from a broader perspective so that the combination of the strategies for delivering the material was appropriate and for the right people. The combination of this model is traditional learning (guided by teacher / lecturer), synchronous online learning, asynchronous independent learning and structured learning.

According to Garrison and Vaughan [45]indicates that it generally causes changes in higher education by three catalysts. First is the advancement of a communication technology that has never happened before. The second catalyst comes from within an

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[41] "Peraturan Pemerintah Nomor 46 Tahun 2019 tentang Pendidikan Tinggi Keagamaan," 2019.

[42] Kementerian Riset, Teknologi, dan Pendidikan Tinggi, Direktorat Jenderal Pembelajaran dan Kemahasiswaan, Direktorat Pembelajaran, *Panduan Penyusunan Kurikulum Pendidikan Tinggi* (Jakarta: Dirjen Pembelajaran dan Kemahasiswaan Kementerian Riset Teknologi Pendidikan Tinggi, 2016).

[43] "Blended Learning: Solusi Pembelajaran Di Era Revolusi Industri 4.0," *Zakimu* (blog), 30 Maret 2018, https://zakimu.com/blended-learning-solusi-pembelajaran-di-era-revolusi-industri-4-0/.

[44] Badrul Khan, *Managing e-Learning Strategies: Design, Delivery, Implementation and Evaluation* (USA: Idea Group Inc., 2005), p. 207.

[45] Garrison and Vaughan, *Blended Learning in Higher Education*..., h. 148.

institution where the focus on research and growth in class has resulted in a loss of teacher-student interaction. The third factor is recognition of the quality of learning experiences in higher education traditional methods can not address that. This has led to the emergence of blended learning which "has spread rapidly and with considerable resonance in higher education"[46] Potential web soon is seen as a tool for virtual collaboration, critical thinking, and as an increase in student involvement.[47]

The expectation of the need assessment is that: a) the learning model blended learning should have been implemented at campus institutions by looking at technological developments, b) the need for a complete module on blended learning (including RPS, learning tools, e-learning and evaluation) so that the implementation can be achieved, c) pedagogical socialization blended learning to lecturers and students, d) facilities and infrastructure, e) and policies regarding the implementation of blended learning.

Conclusion

Blended learning is seen as a solution of learning that is more flexible, more innovative and suitable to be used with current technological developments. Learners will enjoy a more unique and open learning process by elaborating and connecting with learning resources directly so they have more effective and efficient impact. Using the Internet in education has greatly influenced teaching and learning in the 21st century. Universities recognize the need for changes in Higher Education. With the expansion of the internet and its various facilities it developed a university program to be taught online to provide access to Higher Education.

Significantly, Garrison and Vaughan[48] asserted that integrating face to face learning and online was the main assumption of integrated learning design. Implementing a mixed course requires integrating the existing teaching style with the online teaching method, which must consider pedagogical and technological features to shape effective education. With a variety of classroom teaching methods and online, there is no right method for a particular class and its contents. The choice of method

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[46] Curtis J. Bonk and Charles R. Graham, *The Handbook of Blended Learning: Global Perspectives, Local Designs (John Wiley & Sons, 2012),* h. 550.
[47] D. Randy Garrison and Norman D. Vaughan…, h. 24.
[48] D. Randy Garrison and Norman D. Vaughan…, h. 24.

must be based on various pedagogical factors such as course objectives, lecturer teaching philosophy and expected outcomes for students.

Finally, the findings of the need assessment of the blended learning model at IAIN Samarinda are the first step of the researcher in further developing the direction of learning design and tools into a whole concept. Become a model of developing blended learning and conceptual, procedural and physical. Implemented effectively, efficiently and practically as well as attractively. So the implications of this article could be a reference for other researchers to further develop the blended learning model, it can also apply not only limited to higher education to secondary schools or vocational schools to adjust the needs and opportunities of each educational institution.

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