APPLICATION OF BLENDED LEARNING EFFORTS TO INCREASE RESULTS LEARNING STUDENTS IN MATH DEVELOPMENT OF AUDIO MEDIA IN STUDENTS SEMESTER 4 BOGOR UIKA EDUCATION TECHNOLOGY

Mohammad Givi Efgivia
Master in Educational Technology, Ibn Khaldun University, Bogor.

R Andi Ahmad Gunadi
Master of Educational Technology, University of Muhammadiyah Jakarta.

Abstract

This study uses blended learning as a learning strategy that combines electronic learning and face-to-face learning from audio and radio media development courses in the 4th semester. Educational technology students of IB University of Technology Teacher learning activities, student activities and student responses to the application of blended learning
This research is a form that consists of four steps: 1) planning, 2) implementation, 3) observation, and 4) reflecting research conducted in the 4th semester student of technology education at the Faculty of Teaching and education of Ibn Kalad University (FKIP) Techniques for collecting data by means of tests, observations and responses of students in the form of questionnaires. Data analysis techniques using quantitative methods
The results of learning to develop a sound media by applying blended learning have increased significantly before the success rate of only 33.40% after the first round of use reaches 75.63% and the use of the second round to 90.28 % 2) The results from teacher activities in teaching come to the first round with 49 categories, sufficient and second round 71 in the good category 3) In the student learning activities, the first round results are valuable. An average of 23.33 in 4) students receive 990 points from an average of 26 students Section 38.07, while the second received 920 points out of 23 students, on average, 40 people are very good.

Keywords: blended learning, learning strategies, audio / radio media development, action research

1. Introduction

The results of the observation in the 4th semester of the previous program of audio media development have received information that students in the lesson tend to be lazy and feel bored when learning with theoretical teaching methods. The learning outcomes of the development curriculum are averaged below 55 or C The perceived value is 35% with an average of 63.53. Therefore, learning can be said to be less successful if the student has not yet reached 70.

In the development of audio media courses, the importance will increase to get the expected value from the university. Innovation in the learning process must be carried out with all available resources. Resources that can be used to find learning strategies are innovative learning strategies that use information technology, especially the growing internet world that is rapidly changing and progressing, resulting in the use of very good strategies in the world of Study. Learning methods or learning strategies are essential for students to know about the development of audio media, which is useful for improving student learning.

Blended learning is one of the learning strategies that can reduce the teaching and learning process to become more enthusiastic between students and teachers using information technology. Thorne (2003: 2) describes blended learning as it is an opportunity to combine the advancements in innovation and technology offered by online learning and the best possible interaction in traditional learning. So Bersin (2004: 56) identifies blended learning: a combination of "media", different training

(Technology, activities and types of activities) to create the most suitable training program for specific audiences. The term "blended" means training conducted by traditional instructors, being supplemented by other electronic forms. In the context of this book, there are many different learning methods that may be fulfilled by teachers and other live performances.

From the above description, we can assume that blended learning is a combination of traditional learning characters and electronic learning environments or blended learning. Combining blended learning (Electronic format) such as web-based learning, video streaming, asynchronous and asynchronous voice communication and with one-to-one learning. From the above writing, this article raises the name **"Application of blended learning to improve student learning results in the sound development curriculum in Semester 4, FKIP UIKA - Bogor Educational Technology Students**

This article aims to (1) understand the increase in learning outcomes after using blended learning in audio / radio media development courses in educational technology FKIP UIKA Bogor (2) to view the teaching activities of teachers In blended learning in audio / radio media development courses in educational technology FKIP UIKA-Bogor, (3) to find student activities in learning using mixed learning Continue to develop audio media Courses in FKIP UIKA Bogor Educational Technology, (4) can see student responses in the use of blended learning in audio media development courses in educational technology FKIP UIKA Bogor.

Learning Outcome

From Romiszowski (in Abdurrahman, 2003) revealed: "The learning results are the result of the input-processing system. The input from the system is in the form of various data, while the output is action or performance. (Performance) In addition, Bloom (in Suprijono, 2011) explains:

Learning outcomes including cognitive, emotional and mental abilities Cognitive domains are knowledge (knowledge, memory), harmony (understanding, explanation, summary, example), applications (use), analysis (explain, define relationships). , Synthesis (Organizing, planning, forming new buildings)) Emotional domains receiving (receiving), responses (giving responses), valuation (values), organization (organization), characterization (Characteristics) Psychomotor domain, including production skills, body techniques, social management and intellectual

Learning results occur when some people after learning change their behavior to that person from ignorance, knowledge, and understanding (Hamalik, 2011: 30). Changing knowledge and skills will occur after Learning process

Based on the above description, it can be concluded that the learning outcomes are the result of the learning process that demonstrates the success of the students' ability to have a learning experience. Learning outcomes are explained by changes in what happens to students when compared to the previous. Therefore, an assessment activity is needed to determine what level of expertise the student has.

Blended learning

Traditional face-to-face (face) learning and face and electronic learning areas Blended learning combined with web / internet learning, video streaming, audio synchronization, communication and synchronization with one-on-one (face-to-face) learning (Sjukur, 2012 : 4) The use of blended learning is intended to enable students to understand the content actively and better in the classroom learning so that it can happen. Combining the combined blend of two advantages of virtual learning with traditional or one-on-one (face-to-face) elearning or online learning is a natural extension of the learning function in Traditional classrooms are one-on-one (Izzudin, 2012: 5).

Blended learning is the most logical and natural evolution of our learning agenda. It introduces an elegant solution for learning and development for individual needs. It demonstrates the opportunity to combine the advancement in innovation and technology presented by online learning and the interaction that is best presented in traditional learning (Thorne, 2003: 16). Thorne (2003: 16) tells us that blended learning describes the most logical development in learning. Blended learning, transfer learning solutions and personal needs development Blended learning is an opportunity for learning and communication between students and students to interact and work together best in the traditional learning style. Blended learning is a combination of multimedia technology, video streaming, CD ROM, virtual classes, email and online messages that integrate with traditional learning styles.

According to Carman (2005: 2), there are five points for learning that take advantage of blended learning, including:
• Live face-to-face activities via the internet will be synchronized at different times and locations or the same place or directly learned.
• Selft - fast learning, student learning, anytime, anywhere online Combined with self-learning
• Collaborative collaboration Teacher between students learning
• Evaluation, which is a type of online and offline assumptions which may be test or not tested, which is a combination of both.
• Materials supporting the operation of all learning materials that are in digital format can be accessed by students both offline and online.

Based on the above comments, we can summarize the blended learning, the combination of the two learning strategies that are integrated into a single learning process: learning with a web base, interacting with learning in advance. Therefore, blended learning helps learning with information technology in the form of learning as a tool to send learning and is also useful for students to increase motivation in learning by students by studying at More complex and interesting Blended learning is more effective in the learning process because it uses face-to-face learning by distributing according to learning that can be accessed anywhere, anytime.

Changes in teachers' standards in order to be able to change dynamically in a blended learning learning model based on Garrison & Vaughan (2008) by adjusting existing integration of oral communication. One-to-one learning With written communication about online learning is the basic concept of a blended learning model In the learning process of learning, usually the orientation of psychological abilities lacks the emotional factors that face mixed learning because educators can act to motivate students with direct motivation. And expressed on the face The learning process of students, blended learning is more varied.

Audio / Radio Media Development Course

Media Audio Development is a course in the teaching technology education program taught. Audio media is a basic course before students learn more about multimedia. The audio learning media is related to the sense of learning. Messages are sent to the verbal (non-verbal / verbal) hearing and non-verbal symbols (sadiman, 2010: 49) but sound media is suitable for the process. Learn by radio In broadcast media, such as broadcast identification by identifying short stories

The development of audio media indicates that students need to understand a large number of theories and compile them so that teachers want to develop appropriate strategies to facilitate the delivery of teaching materials. Much material if sent to students through lecture methods can be students with little enthusiasm to learn. Learning must be presented with attractiveness and fun so that students are enthusiastic and passionate about learning.

Research on blended learning in the learning media program / radio education development about basic abilities, understanding of the benefits, techniques for using audio media for learning and development strategies In the production practice, the learning program will follow the standard operating procedures (SOP).

Method

This research method uses classroom research. (Classroom Operations) Bogdan & Biklen (1992: 223) explains that action research is a systematic collection of information designed to create social change. In addition, (Cameron-Jones: 1983) research schedule The workshop is a research conducted by the practitioner with the aim of increasing professional training and understanding better, according to Allwright and Bailey (1991: 2).

The central findings of the classroom and try to determine what actually happens in the classroom. It treats classroom interactions as the only object that is worthwhile in examining research. Class action is carried out through cycles and designed in four steps. Kemmis and Taggart (1988) say that research begins. By planning actions Then the plan will be used as an action in the classroom and then follow RU to capture the nature of the action research in the classroom. Strickland (1987: 760) discusses the following sequence: 1) Identify problems Interests or problems; 2) Knowledge seeking; 3) Action planning; 4) Take action 5) Observe their actions; 6) Reflect your observations; 7) Revise the plan according to the models of Kemmis and Mc Taggart in Arikunto (2006: 97). The flow of education consists of four main activities: planning, operation, observation and reflection. The model can have four elements: planning, execution, observation and reflection that are performed to analyze the information received during the action.

The location of this study is the educational technology education program of the IBN Khaldun University. The study time will be conducted in the regular semester of the academic year 2019/2020. The population is all research subjects. The population of this study is all students of the Educational Technology Education Program of Ibn Caldoun University. The sample is only partially or representative of the population studied. The sample group used in this research was 26 students of the Educational Technology Division.

The study is conducted in 2 rounds, each round consisting of 2 face to face research procedures consisting of planning. (Preparation of learning tools and research tools) Actions (organizing learning activities together with blended learning strategies) Observation / observation (observation of teacher activities with students during learning) and ponder Of blended learning)

Learning tools used in the form of learning media (e-learning), courses, semester learning plan (RPS), evaluation sheet (LP) and haj materials / distribution of research tools such as test sheets, learning results, observation sheets, faculty activities and activities Student learning and student response sheet

The accuracy of the learning tools will be based on the accuracy of the content, along with judging from the logical experts about the learning materials and learning materials. Data collection techniques use testing methods, observation methods and questionnaires.

Data analysis techniques use quantitative descriptive techniques such as data analysis with additional descriptive statistical descriptions of tables and graphs. Then conducted an assessment by comparing the evaluation score and the criteria based on the normal curve

Table 1. Criteria for Assessing Each Variable

No	Score Range	Criteria
1	X > Mi + 1,5 SDi	Very good
2	Mi + 0,5 SDi < X ≤ Mi + 1,5 SDi	Good
3	Mi - 0,5 SDi < X ≤ Mi + 0,5 SDi	Pass
4	Mi - 1,5 SDi < X ≤ Mi - 0,5 SDi	Less
5	X ≤ Mi – 1,5 SD	Very less

Experimental results and discussions

Round 1 Learning activities

Round 1 learning activities require learning methods such as courses, RPS with blended learning methods, learning resources with detailed materials as a basis for learning and evaluation, such as post-test. study Applying an important blended learning method to electronic learning media with LMS Moodle at htp access: //elearning.tpfkipuika.online

Round 1 learning activity with 26 students, teachers and instructors in the development of audio media Observations performed by professors when learning occurs in learning Observations are performed using existing observation equipment. In order to search for student responses to blended learning after the end of the 1st round of each student, fill out a questionnaire about responses or comments about blended learning.

Teachers' learning activities use the first round of blended learning by informing the learning objectives that will be conveyed at the meeting, including the motivation to learn to students about the importance of audio media in Learning. Lecturers lecture blended learning methods and methods of using electronic learning materials for students. Implementation of the instructor learning process in conjunction with blended learning in various roles of audio / radio media as educational media by means of lectures directly to students and assignments to students through learning.

The activities of the students in the learning process using blended learning methods Round 1 will be sent by the teacher. Students work with computer-based learning materials. Students discuss together to solve problems in assignment. Students show assignments in front of the class. Students perform post-test assessments to find student results in Round 1.

The obstacles in Round 1 are that students do not understand all learning materials. Students also forget passwords and web URLs from learning. Students are quiet when they do not understand the teacher, do not encourage students, teachers will understand less when the learning process occurs with a blended learning method. Solving the problem of using the learning process in Round 1, training will be conducted using learning for teachers and students. Therefore, in the second round can use a blended learning method well. Students can use time according to the time set by the teacher to ask questions. The teacher will give incentives to give more time in the learning process. Teachers use LCD to display e-learning with questions about teaching materials and learning exercises. Electronics

2nd Round Learning Activity

The activities of the major cycle 2 are the learning process before solving problems in organizing training for teachers and students outside the learning process. Therefore, in the second round, it is possible to use a blended learning style. Creating learning and teaching processes, such as the RPS curriculum with a blended learning method, learning resources about the characteristics, functions and benefits of radio, audio / media, the role of audio media / education as educational media Techniques for using audio / radio for learning as well as learning evaluation such as post-test Organizing learning materials with LMS Moodle to run learning methods. Bleded Learning has been enhanced with student motivation in the form of images and videos.

In the second round of teaching and learning activities, there are 26 students. There are teachers to observe during the student learning process. Student activities during the time of learning Observations are made using existing observation devices.

For the number of students that respond to the blended learning process After completing Round 2, all students must complete a questionnaire to find answers from students about blended learning. Learning activities in the learning process and learning process, including blended learning methods, all in the e-Learning cycle. Instructors carry out learning activities with integrated learning materials and e-student assignments via e -learning to students -learning Teachers give students the opportunity to ask

Student activities in learning by using a blended learning cycle. Type 1 is the student observing videos inspired by the teacher. Students learn materials prepared by professors. Students asked about the content presented by the teacher. Students work on e-learning media with computers. Students organize discussions to solve problems in assignments. Presenting students assigned to the class Students perform post-test assessments to find out the learning outcomes of students in Round 2.

Learning activities with blended learning strategies In Round 1, students are more enthusiastic and inspired by videos. Students are more enthusiastic in asking teachers. The learning outcomes of students are also increasing from the results cycle and learning outcomes in Round 2 have attained more than 75 learning values.

Students after using blended learning outcomes, learning strategies, learning outcomes are the result of a learning process that shows students' abilities after receiving a learning experience. Learning results and an average score of 85.17

Based on the value of learning and learning outcomes, students who finish with the total number of students multiplied by 100% from Table 2 and Figure 1 percent of students' intellectual learning increased. The pre-action percentage was 33.40%. Percentage of cognitive learning after the first round of action was 75.63% and the percentage of cognitive learning after the second round of action was 90.28% percent of the class. Students' knowledge increases and exceeds 75% of all students. Could not be separated from the previous round of defects Graduation from most students shows that the level of understanding of students increases the content after students use blended learning strategies.

Table 2. Comparison of Student Cognitive Learning Graduation Percentage

No	Information	Before Actions	After Actions

			Cycle 1	Cycle 2
1	Graduation Percentage	33,40%	75,63%	90,28%
2	Percentage that does not pass	66,60%	24,37%	9,72%
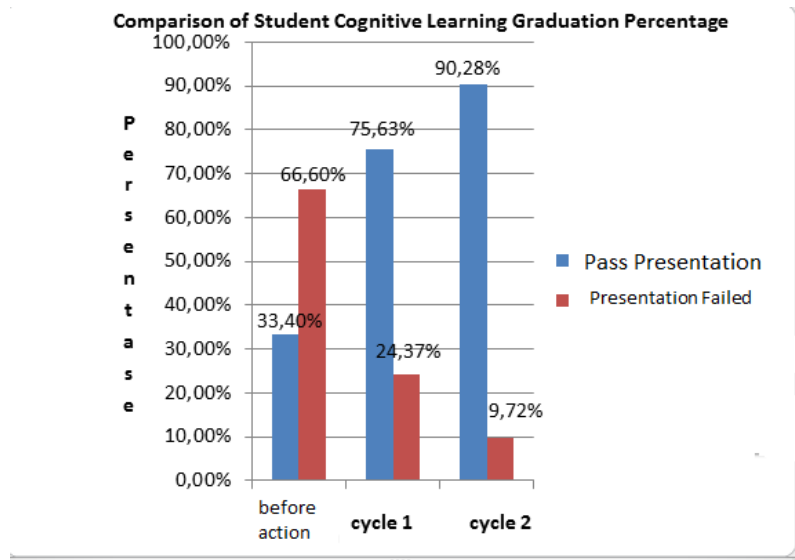
Teaching teacher activities in applying blended learning methods

The assessment of the instructional activities of the instructors is derived from observation documents, which include activities such as basic activities, activities, principles of closing and using learning methods. The result of the ability of the teacher's activities to use the blended learning method is carried out by 3 observers (2 students and 1 teacher) on the observation book. The assessment will be conducted in each learning cycle. Assessment of proficiency or teaching activities of teachers and assessment criteria

Table 3. Criteria for Assessing Lecturer Teaching Activities

Score Range	Criteria
X > 80	Very good
$66,7 < X \leq 80$	good
$53,3 < X \leq 66,7$	pass
$40 < X \leq 53,3$	Less
$X \leq 40$	Very less

The results of the instructional activities of the instructors using the first round of the blended learning method shown in Table 4, with an average of 55, according to the criteria in Table 3. Round 1 falls into a sufficient category. The lowest number of points is student motivation and learning. The highest score learning method in describing goals, explaining topics and students centered in Round 1 shows that teachers have control over the content and make learning as the center of More students while learning methods still lack.

Table. 4 Amount of Value Observation of Cycle 1 Lecturer Teaching Activities

No	Description	Amount of Value
1	Observer 1	51
2	Observer 2	52
3	Observer 3	45
Total		148
Average		49,33

The results of the proficiency of teachers increase in each round. The increase is not separate from the previous round of defects. The results of the research found that the primary activities, activities, principles, activities and learning methods were implemented well.

Student learning activities in using blended learning strategies

Assessment of student learning activities is derived from student observation documents, which include many aspects, including attitudes, attitudes, interests and responsibilities. Assessment of student learning activities is carried out by 3 observers (2 students and 1 teacher) by filling in the notice. Assessment will be conducted in each learning cycle. Assessment of student learning activities is done by the average score and assessment criteria.

Table 6. Criteria for Assessing Student Learning Activities

Rentang Skor	Criteria
X > 40	Very good
33,3 < X ≤ 40	good
26,7 < X ≤ 33,3	pass
20 < X ≤ 26,7	Less
X ≤ 20	Very less

The results of the learning activities of the students using the blended learning method, Round 1 in Table 7, has an average value of 23.33. The criteria for student learning in the use of blended learning method Round 1 according to the table 6 will be included in fewer categories The lowest score is the area in which students are motivated to learn. Students can use e-learning correctly and students ask. l Teachers when having problems This shows that students are not able to use e-learning well, so they are not motivated to learn.

Table. 7 Total Values of Observation Results in Cycle 1 Student Learning Activities

No	Description	Amount of Value
1	Observer 1	25
2	Observer 2	23
3	Observer 3	22
Total		70
Average		23,33

The results of the learning activities of the students by using the blended learning cycle method 2 in Table 8 increased according to the average score of the learning activities of the students by 37.33 criteria for assessing student learning activities using The blended learning method, Round 2, according to Table 6, is included in the good category. There is an increase in the observation of learning activities of students from Round 1 due to the improvement of learning based on the practice and the problems that occur in the 1st round. The additional aspects in Round 2 are students performing each task. Properly Students follow learning through a combination of enthusiastic learning. Students ask the teacher when faced with difficulties. Students can use teaching correctly and students are motivated to learn.

Table. 8 Amount of Value Observation Results of Cycle 2 Student Learning Activities

No	Description	Amount of Value
1	Observer 1	36
2	Observer 2	39
3	Observer 3	37
Total		112
Average		37,33

Observation results from student learning activities increase in each round. This completeness cannot be separated from the previous round of defects. The completeness of students shows that the use of attitudes, discipline, attention and responsibility and students feel enthusiastic about following the learning process.

Student response in blended learning methods

Analyzing the answers of students by filling out a questionnaire using the respondents from the class under study The questionnaire was distributed to respondents during the learning process with a blended learning method that occurred. Assessment of student responses to blended learning strategies is carried out by the average score and assessment criteria.

Table 9. Criteria for Assessment of Student Response

Rentang Skor	Criteria
X > 40	Very good
33,3 < X ≤ 40	good
26,7 < X ≤ 33,3	pass
20 < X ≤ 26,7	Less
X ≤ 20	Very less

The results of the student cycle 1 response to 26 students received a total score of 990 with an average of 38.07 from Table 9. Student responses to the application of learning and blended learning methods are in the category that good The highest score is learning through a blended learning method to create a pleasant new atmosphere, while the lowest score is that students do not feel bored during the learning process. This explains that students feel happy with new learning strategies, namely blended learning methods. But students are bored if learning classroom management cannot work well because they lack expertise in learning methods

The results of student responses in round 2 to 23, students received a total score of 920, with an average of 40 from Table 8. Student responses to the application of learning with blended learning methods Round 2 In excellent category The highest score is learning through a blended learning method that makes the new atmosphere pleasant and students have more freedom to work on assignments when following learning by using blended learning methods. After the improvement in the management of blended learning methods in the classroom, the student's response increased. Students are very happy with the new learning methods that make the atmosphere in the classroom not boring.

The results of observing student responses have increased in each round. This shows the students' enthusiasm for the blended learning process to increase student motivation in learning and to make learning content easier to understand.

Conclusion

Based on the results of the research and discussion, can be summarized as follows: (1) The learning outcome of students in blended learning in the audio media development program at UIKA Bogor has increased as specified by the action at 33.40% after the action of Round 1 increased by 75.63% and after the action of the second round was 90.28% (2) The results of organizing teaching and learning activities using blended learning methods in round 1 had a total score of 49.33 and belonging to the category Phe The method in Round 2 has increased to an average of 71.33 and is included in the good category. (3) The blended learning method has an average of 23.33 and is included in fewer categories. The results of the learning activities of students by using blended learning methods, 2nd round, increased with an average rate of return of 37.00 and belonging to a good category (4) The results of responses to students in the 1st to 26th rounds Students receive a total value of 920 with an average of 38.07 and are in a good category. The results of the second round of students from 23 to 23 students received a total of 920 points, an average of 40 and included in the excellent category.

Suggestion

From the above conclusions, the following things can be suggested (1) for teachers to develop technology skills to make it easier to use multimedia learning methods and computer media on the internet that are useful for learning and Improve student learning results (2) for schools that pay attention to facilities and infrastructure to support learning This includes an Internet connection in the campus. So it makes students easier to access useful information for education (3) for students to take advantage of technological advances with good things such as access to online learning materials, e-learning, journals and e- Internet books (4) for further research to make more information about blended learning by comparing results between 2 rooms Different classes

References

Abdurrahman, Mulyono. (2003). Pendidikan Bagi Anak Berkesulitan Belajar. Jakarta: PT Rineka Cipta.

Anas Sudijono. (2006). Pengantar Statistik Pendidikan. Jakarta: PT.Raja Grafindo Persada.

Anderson, Ronald H. (1994). Pemilihan dan Pengembangan Media untuk Pembelajaran. (Terjemahan Yusufhadi Miarso, dkk).Bandung: Rajagrafindo Persada

Apriliya Rizkiyah, (2013), Penerapan Blended Learning untuk Menngkatkan Hasil Belajar Siswa, Jurnal Kajian Pendidikan Teknik Bangunan Vol 1 Nomer 1/JKPTB/15 (2015) : 40 - 49

Allwright, Dick., Bailey, Kathlen M. 1991. Focus On The Language Classroom An Introduction To Classroom Research For Language Teachers. Cambridge: Cambridge University Press

Borg, Walter R et.all.1992. Applying Educational Research A Practical Guide. New York: Longman.

Bersin, J. 2004. The blended learning book: Best practices, proven methodologies, and lessons learned. San Francisco: Pfeiffer Publishing.

Bogdan, Robert C . Biklen. Sari Knopp. 1992. Qualitative Research for Education An Introduction To Theory and Methods. London: Allyn and Bacon.

Cameron-Jone. 1983. A Searching profession? The Growth of Classroom Action Research. Scotland: Moray house College of Education

Carman, J.M. 2005. Blended learning design: five key ingredients. diakses pada 18 Januari 2019, dari http://www.agilantlearning.com/pdf/Blended%20Learning%20Design.pdf

Garrison, D.R. & Vaughan, N.D. 2008. Blended learning in Higher Education. San Francisco:Jossey-Bass

Izzudin Syarif. 2012. Pengaruh penerapan model blended learning terhadap motivasi dan prestasi belajar siswa SMK. Jurnal Pendidikan Vokasi, Vol 2, Nomor 2, Juni 2012

Kerres, M., De Witt, C. 2003. "A Didactical Framework For The Design Of Blended Learning Arrangements". Journal Of Educational Media, 28(2/3): 101–113.

Muijs D. 2004. Doing Quantitative Research in Education with SPSS. London: Sage Publications.

Noe. R.A. 2005. Employee training and development. Boston: McGraw Hill

Oemar Hamalik. 2011. Proses belajar mengajar. Jakarta: Bumi Aksara

Sadiman, Arief. 2010. Media Pendidikan. Jakarta: PT Raja Grafindo Persada.

Seels, Barbara dan Richey, Rita. 1994. Teknologi Pembelajaran. Jakarta: Unit Percetakan Universitas Negeri Jakarta.

Singh, H. 2003. "Building effective blended learning Programs". Issue of Educational Technology, Volume 43, Number 6 : 51-54.

Smaldino, Sharon E, Russel, james D. Heinich Robert and Molenda, Mchael. 2005 Instructional Technology and media for Learning. New Jersey: Pearson Education Inc.

Sugiyono. 2012. Statistika untuk penelitian. Bandung: Alfabeta

Suprijono, Agus. (2011). Cooperative Learning (Teori dan Aplikasi PAIKEM). Yogyakarta: Pustaka Pelajar.

Suharsimi, Arikunto; Suhardjono; Supardi. 2007. Penelitian Tindakan Kelas. Jakarta: Bina Aksa

Sjukur. S. B. 2012. Pengaruh blended learning terhadap motivasi belajar dan hasil belajar siswa tingkat SMK. Jurnal Pendidikan Vokasi, Vol 2, Nomor 3, November 201

Strickland.D. S. The Teacher as Researcher: Toward the Extended Professional'. Language Arts. Vol. 65

Tarone, Elaine E (ed). 2009. Research Methodology in Second-Language Acquisition, New York: Psychology Press.

Thorne, K. 2003. Blended learning : How to integrate online and traditional learning. London: Kogan Page Publishers

University of Western Sydney. 2013. "Fundamentals of Blended Learning"

Wilkinson, Gene L, 1980. Media dalam Pembelajaran, Penelitian selama 60 tahun. Jakarta:Pustekkom dan Rajawali

Whitelock, D., Jelfs, A.2003. "Editorial: Journal of Educational Media Special Issue on Blended Learning". Journal of Educational Media vol 28: 99-100

Zyainuri & Marpanaji, E. 2012. Penerapan e-learning moodle untuk pembelajaran siswa yang melaksanakan prakerin. Jurnal Pendidikan Vokasi, Vol 2, Nomor 3, November 2012