Development of Arabic Textbooks With The Application of The Station Rotation Type Blended Model

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Abstract: This research and development aim to produce a station rotation blended learning (SRBL) model for learning Arabic courses; know the validity of the SRBL in learning Arabic courses; know the practicality of the SRBL model in learning Arabic courses, measure the effectiveness of the SRBL in learning Arabic courses, analyzing student responses to the SRBL learning process. This research method is research and development with the Plomp model. The results showed; the material expert test is on very good criteria and is suitable for use, the learning design expert test is on the very good criteria and is suitable for use, the learning media expert test is on the very good criteria and is suitable for use, individual trials are on very good criteria, small group trials are on very good criteria, and field trials are on very good criteria. The effectiveness of learning with the developed model shows more effective student learning outcomes in Arabic.

Keywords: learning model, station rotation, blended learning, Arabic textbooks

1 Introduction

In the XXI century it brings different challenges with the rapid development of technology, many universities respond to challenges, and pressures and some are starting to adapt to new technologies through the web. The rapid evolution of the web has challenged higher education to prepare graduates who are capable of adapting to the technology of the future [1]. Because at this time the world has entered the era of disruption, an era where there are many new products, with new logic, and completely different ideas, and can eliminate old products. Chronologically its development starts from the era where people have a pattern for hunting (society 1.0), continuing to the era of agriculture (society 2.0), industry (society 3.0), information (4.0), and (society 5.0). In today's digital era, two dominant paradigms running parallel were first developed in Germany and Japan, namely the industry 4.0 paradigm and the community 5.0

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paradigm. These two paradigms have a significant dual effect on the education system, in terms of content, methodology, and learning models [2].

The main problem that will occur is a shift in values, models, and technological procedures that occur extremely and fundamentally. In industrial revolution 4.0, developing an internet-based system (IoT) model with various infrastructure approaches, both hardware and software [3]. Therefore, a balance is needed between meeting human needs and technology. The industrial revolution 4.0 opens up new opportunities in education as a supporter of carrying out learning activities in digital form.

Digital transformation can provide cost efficiency, increase productivity, and improve the quality of education into a better system. Teachers, governments, educational institutions, and parents must be able to adapt to the disruption of the industrial revolution 4.0. Nasir [4] explained that to face the industrial revolution 4.0, Indonesia is estimated to have a high potential in preparing skilled workers in every field. Skills that must be mastered by HR to be able to be competitive in life skills in the XXI century, such as having 4C abilities which include Critical thinking, Communication, Collaboration, and Creativity. Achievement can be done by learning innovations that are tailored to problems or project-based learning, encouraging collaboration, communication training, empowering metacognition, designing learning relevant to the real world, and being student-centered [5].

All Arabic learners and teachers, according to Utami [6], know that in learning Arabic there are at least four competencies that must be mastered, which are as follows: (1) Istima' (Listening), (2) Kalam (Speaking), (3) Qiroah (Reading), (4) Kitabah (Writing). The four skills must be taught in various functions and learning contexts, so that to achieve this, models, approaches, methods, strategies, and learning media are needed to support the process of mastering the four skills.

In addition, according to Farooq and Javid [7] that blended learning also adheres to the learning theory of behaviorism, the theory of behaviorism is that in learning there is a behavior change. In blended learning, it provides a stimulus and response for students to be involved in learning both online and face to face with the physical involvement of students to learn.

Connectivism learning theory provides a new perspective on how learning occurs in the digital learning space. According to Horachek [8], online learning uses digital technology such as internet servers and web browsers to deliver online course materials. Therefore, online learning is bridged through internet technology that can be interconnected globally so that they can be connected.

Blended learning in practice can be applied as a supplement and complement or substitute in learning, which includes the content of teaching materials in the form of documents, videos, animations, simulations, and others. Therefore, blended learning for its application can be chosen as a supplement, complement and substitute. A proportion of blended learning is needed is by educational needs, of course taking into account the characteristics of the courses applied to the blended learning.

1.1 Blended Learning Model

Blended learning is a combination of online learning and face-to-face learning for classroom teaching or other training modalities to help develop new transferable knowledge and skills in the workplace environment. According to Bauk [9], Blended learning is the most popular educational model applied by universities for teaching and learning, this model combines online and face-to-face learning environments to enhance learning with the application of new web technologies and tools in the learning process.

The use of blended learning has grown globally both in educational institutions and universities. Universities and other learning institutions must continue to emphasize blended learning through the installation of learning management systems along with connected networks that enable effective learning using technology, especially in developing countries. It is therefore important that for the use of blended learning there is a need for appropriate management systems and competence in the use of technology.

To produce the effectiveness and efficiency of learning activities, a teacher must be able to apply appropriate learning models. Because the learning model has a role in achieving a goal. The demands and civilization of the teaching and learning process have transformed into a digital dimension, so the use of technology in learning is also needed. Therefore it is necessary how to integrate a learning model with the use of technology in it. The role of technology today uses blended learning which has broad implications for students.

Blended learning was developed to replace lectures and provide support for and complement courses. Blended learning to complement hands-on learning. According to Syarifah and Handayani [10], the function of e-learning in learning is only as a complement. Blended learning serves more of a supplementary or adjunct role. It is concluded that higher education institutions can use blended learning according to their functions and needs, both as supplements, complements, and substitutions depending on policies and needs and goals to be achieved.

The relationship between blended learning and educational practice is as follows:

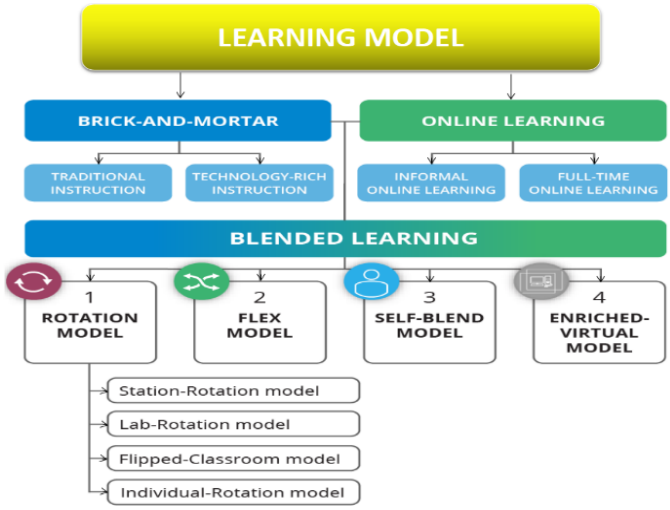

Fig. 1. Blended Learning Model (Source: Staker & Horn [11])

The category of the blended learning model itself can be seen in Figure 1. below:

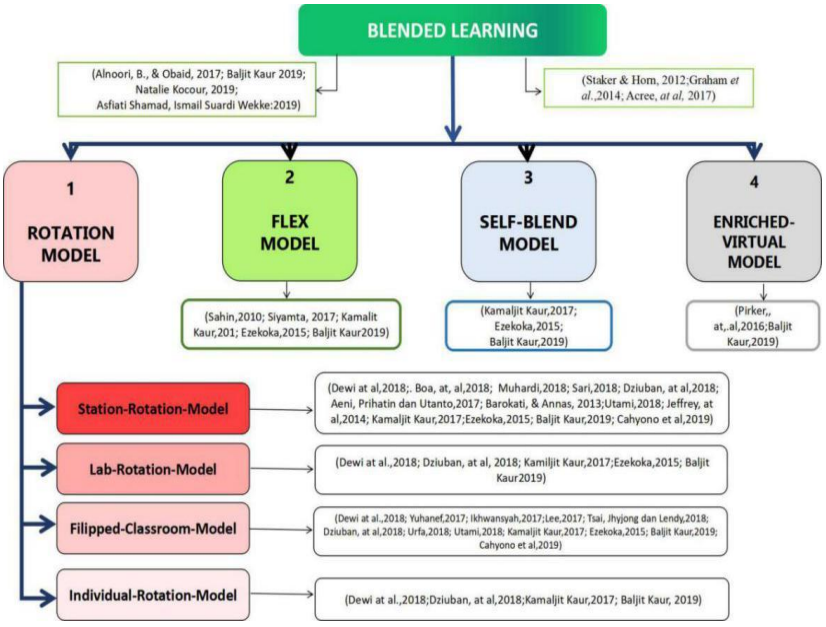

Fig. 2. Categories of Blended Learning Models

1.2 Arabic Learning

There are several types of materials related to Arabic Language Education materials, including: (1) Writing Khot (Al-Imla) This lesson aims to achieve proficiency in Arabic writing and spelling. This material is the basic material in Arabic lessons, so students / santri must master this subject so that in the future it is easy to understand Arabic lessons; (2) Conversation (Al-Muhadastah) This subject is to teach speaking and listening skills. And it needs to be given in the form of sentence patterns and expressions that can be used in conversational language. Like a question and answer sentence; (3) Reading (Al-Qiro'ah) Al-Qiro'ah subjects have two objectives, including (a) The first objective is to recognize the basic Arabic letters that have been arranged neatly into words in a sentence and can express them properly and correctly. This goal can be achieved by reading aloud (Qira'ah Jahriyah). (b) The second goal is to understand what is read, related to Arabic subjects. This goal can be achieved through reading silently or what we usually know, namely (Al-Mutolla'ah); (4) Grammar (Al-Qowaid) As for what is meant by Al-Qowa'id is grammar which includes the science of Nahwu and the science of short. This material is to understand how to speak well, therefore students / santri must be able to understand the rules or grammar with Nahwu Science Subjects and Surf Science. So that this will have an impact on students/students in good and correct Arabic conversation; and (5) Composition (Al-Insya) Subject Al-Insya is the subject of composing or compiling an Arabic sentence [12]. To achieve proficiency in including thoughts or feelings in written or spoken form.

Arabic Learning Method is a level of comprehensive program planning that is closely related to the steps of delivering subject matter procedurally, not contradicting each other, and not contradicting the approach, in other words, the method is a general step in the application of theories that there is a certain approach.

The purpose of learning Arabic can be known through the learning objectives. In a narrow and concrete sense, the form of Arabic education is learning Arabic itself. The purpose of language learning theoretically means that the goal requires Arabic language skills. With continuous language learning, language skills can be obtained which are generally still known as four kinds of language skills, namely listening, speaking, reading, and writing.

The formulation of the problem in this research are: (1) how to develop the SRBL learning model in Arabic; (2) how is the feasibility level of the SRBL learning model in Arabic; (3) how is the level of practicality of the SRBL learning model in Arabic; and (4) how is the level of practicality of the SRBL learning model in Arabic; how the level of effectiveness of the SRBL learning model in Arabic.

2 Method

This research includes Research and Development. In this study, a valid, practical, and effective station rotation blended learning model was developed, and learning tools and instruments were needed for the model development process. The development process uses the Plomp model.

The place of this research is the Faculty of Tarbiyah and Teacher Training (FITK) of the State Islamic University of North Sumatra (UIN SU) Medan. The subjects of this research are lecturers and students who are registered as Arabic language lecturers and second-semester

students of the 2021/2022 academic year at the Faculty of Tarbiyah and Teacher Training UIN North Sumatra.

At the learning module development stage, targeting, in this case, is lecturers, learning experts, the field of study experts, and students who assess learning teaching materials that have been developed based on the following criteria: (1) evaluation of learning experts (expert judgment) is determined based on expertise owned, (2) the evaluator who carries out the evaluation is determined based on the ability of the lecturer with the classification of experts in the field of study.

Data collection in research and development is divided into three parts, namely preliminary research, development, and verification testing. At each stage of the study, certain data collection techniques were selected according to their respective objectives. In the preliminary study, in addition to the literature study, questionnaires, observations, and document recording techniques were also selected. Generally, these three technologies can be used simultaneously and complement each other.

The method used is a quasi-experimental method using a non-equivalent control group design. This design was used because of the limited population of the research sample and in this design the experimental group was not chosen randomly, then a pretest was given to determine whether there was a difference between the experimental group and the control group in the initial state.

Table 1. Experimental diagram (nonequivalent control group design).

Group	Pretest	Treatment	Posttest
Experimental group	O1	X	O2
Control group	O3	-	O4

The arrangement of the scale used in this questionnaire or questionnaire is based on a Likert scale (interval 1 to 5) and the average score for each question item in the questionnaire and evaluation sheet will be calculated. After that, the average score is converted into scores on a scale of 5.

Table 2. Assessment criteria on a 5 scale

Score	Criteria	Scoring	
		Formula	Calculation
5	Very Worthy	X > Mi + 1,8 SBi	X > 4,2 4
4	Worthy	Mi + 0,6 SBi < X < Mi + 1,8 SBi	3,4 < X < 4,2
3	Decent enough	Mi – 0,6 SBi < X < Mi + 0,6 SBi	2,6 < X < 3,4
2	less worthy	Mi – 1,8 SBi < X < Mi – 0,6 SBi	1,8 < X < 2,6
1	Very less worthy	X < Mi – 1,8 SBi	X < 1,8

Data collection techniques in this study use tests. The test is used for Pretest and Posttest.

Analysis technique with t-test. This analysis is measured based on the effectiveness of learning by using a question instrument and hypothesis testing using the t-test. The significant level used

is 5%. After the t-test, the two classes were compared with the number of students who experienced an increase in effectiveness between the two classes.

3. Results and Discussion

The product development of the station rotation blended learning model in Arabic against Arabic textbooks, Arabic learning models, and Arabic language course lecturer and student guidebooks show a high level of validity and feasibility so that the model product can be used in the learning process in the subject. Arabic course.

The next stage of the trial results of the blended-based learning model for students in learning language courses were carried out with 12 students as respondents with varying abilities (randomly). The selection of individual trial subjects is in collaboration with course lecturers. The purpose of the trial was to find out the extent of student responses to Arabic textbooks as learning media. The results of student respondents from the I/small group trial are as follows:

Table 5. Test Data for Blended Arabic Language Textbooks

No	Indicator	Score Rating	Total Score	%
1	Face/Layout Aspect	4,02	5	80,4
2	Design Aspect	3,75	5	75
3	Content Feasibility Aspects	3,6	5	72
4	Aspects of Feasibility of Presentation	3,69	5	73,8
5	Language Aspects	3,73	5	74,5
	Average	3,77	5	75,3

Based on the results of the trial I/small group, the mean value was 3.77. With Good criteria. Overall, the results of the student assessments for the first trial obtained an average value of 3.77, which means that the blended model of Arabic textbooks is feasible to be used as a learning resource in learning Arabic.

The Effectiveness of Student Learning Before the Application of the Blended Model of Arabic Textbooks. To determine the effectiveness of student learning between the experimental class and the control class before being given treatment, the pretest data t-test was carried out. To find out t table use: dk = n1+n2 - 2. Criteria for acceptance of Ho and Ha are if $t_{count} > t_{table}$ then Ho is rejected and Ha is accepted, and if $t_{count} < t_{table}$ then Ho is accepted and Ha is rejected. The results of the pretest t-test calculation can be seen in table 7 below:

Table 7. t-test Pretest Data

Class	Mean	Variant	t_{count}	t_{table}	Decision
Experiment	56,44	67,74	0,44	2,010	$t_{count} < t_{table}$
Control	56,30	76,72			

Based on Table 7 above, it can be seen that the magnitude of the t_{count} is 0.44. Then the t_{count} score was consulted with the t_{table} value at a significant level of 5% and dk 51. The ttable score at a significant level of 5% and dk 51 was 2.01. This shows that the t_{table} score is smaller than the t_{table} score ($t_{count} = 0.44 < t_{table} = 2.01$). Based on the calculation results, it can be concluded

that there is no difference in early learning ability between the experimental class and the control class. If the student's posttest results show differences, then the difference in learning outcomes is due to the treatment process using Arabic textbooks that have not applied the blended model.

The effectiveness of learning after applying the blended model of Arabic textbooks. To determine the effectiveness of student learning between the experimental class and the control class after being treated using a blended model of Arabic textbooks, the t-test was posttest data. To find out t table use: dk = n1+n2 - 2. Criteria for acceptance of Ho and Ha are if $t_{count} > t_{table}$ then Ho is rejected and Ha is accepted, and if $t_{count} < t_{table}$ then Ho is accepted and Ha is rejected. The results of the pretest t-test calculation can be seen in table 8. below:

Table 8. Test t-test Data Posttest

Class	Mean	Variant	t_{count}	t_{table}	Decision
Experiment	76,55	92,49	4,02	2,01	$t_{count} > t_{table}$
Control	69,30	70,02			

Based on Table 8. above, it can be seen that the magnitude of the t_{count} is 4.02. Then the t_{count} score was consulted with the t_{table} value at a significant level of 5% and dk 51. The t_{table} score at a significant level of 5% and dk 51 was 2.01. This shows that the t_{count} score is greater than the ttable score ($t_{count} = 4.02 > t_{table} = 2.01$). Thus Ho is rejected and Ha is accepted. So that there is a significant difference in the value of student learning effectiveness after being treated using the module.

The use of the blended model of Arabic textbooks developed in learning Arabic for students overall shows its feasibility and can be used directly in the student learning process in Arabic courses. The results of the validation of learning design experts, graphic design experts, and Arabic material experts show a high level of feasibility so that the blended model of Arabic textbooks can be used in learning Arabic among students.

The quality of the blended model Arabic textbook product developed is related to relevant theories and research results that support the development of the blended model Arabic textbook product, so the strengthening of the blended model Arabic textbook product is very helpful and has an impact on student learning outcomes in language courses. Arabic for the better.

The success of student's perceptions of the learning environment in various course modalities, and how to configure blended learning about the problem of Blended learning: the new normal and emerging technologies [13]. The findings of blended learning can increase student access and result in increased success rates for minority and non-minority students alike, and blended learning has an effect that offers the potential to improve the teaching and learning process in the educational environment which increases pressure to be more responsive to contemporary student lifestyles [14]. Suggestions in this study are important for establishing clear course objectives, creating an effective learning environment, and effective instructor communication.

The development of blended Arabic language textbooks also adds to the motivation of student learning outcomes. This research aims to determine the differences in motivation and achievement of learning outcomes of geography between before and after using the Rotation Model-based Blended learning model. The research design used Quasi Experiment with the

Non-Equivalent Control Group Design technique. The results showed that there were differences in students' motivation and learning outcomes between the class that was given treatment using the Rotation Model-based Blended learning model and the control class that was not given any treatment. Motivation in the experimental class is higher than in the control class, then the learning outcomes in the experimental class are higher than in the control class. This supports research that the application of rotation-based blended can improve learning outcomes. Likewise, learning Arabic with blended.

Supported by the results of research conducted by Amin [15], the blended learning model is mixing conventional learning models with online learning. Students are expected to always be active and be able to find ways of learning that are suitable for themselves. The teacher only functions as a mediator, facilitator, and friend who creates a conducive situation for the construction of knowledge in students. This blended learning will strengthen the conventional learning model through the development of educational technology. In addition, the results of studies in journals can be concluded that the average results of blended learning research also influence learning outcomes.

The creative thinking ability outcomes of the students taught with this model were higher than those of the group II students who used the ordinary blended learning model. However, those with low thinking abilities taught with the ordinary model exhibited higher learning outcomes than the experimental group. These results show an interaction between the effect of the PjBL model and creative thinking ability on the learning outcomes of engineering students. Therefore, lecturers need to use a blended PjBL model to ensure improved outcomes, alongside enhancing students' creative thinking abilities to increase the model's effectiveness [16].

4. Conclusion

The feasibility of the blended model of Arabic textbooks is declared suitable for use in learning Arabic courses, based on the assessments of material experts, learning design experts, and graphic design experts getting good grades. The results of trial I and trial II got a very good average value. So based on the results of the data obtained from the assessment of material experts, media experts, lecturers, trial I, and trial II of the blended model of Arabic textbook media with Good criteria.

The effectiveness of student learning has increased in the experimental class that uses the blended model of Arabic textbooks than in the control class whose learning process does not use the blended model. The combination of the use of online and offline learning in blended is highly expected by students in the learning process on campus so that they can improve Arabic learning outcomes.

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