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Online Learning of Early Childhood Language Development Courses Third Semester Students of the Early Childhood Education Teacher Education Study Program (PGPAUD) Stkip Muhammadiyah Bogor

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Abstract: This study aims to analyze: 1) To analyze the process of developing google classroom learning courses early childhood language development courses third semester students of the Early Childhood Education Teacher Education Study Program (PGPAUD) STKIP Muhammadiyah Bogor. 2) To analyze the feasibility of online learning google classroom The Early Childhood Language Development course based on the ADDIE model is integrated with the PEDATI model for third semester students of the Early Childhood Education Teacher Education Study Program (PGPAUD) STKIP Muhammadiyah Bogor. 3) To analyze the effectiveness of google classroom-based online media for learning the Early Childhood Language Development course for third semester students of the Early Childhood Education Teacher Education Study Program (PGPAUD) STKIP Muhammadiyah Bogor. This research method is development research or also called Research and Development (R&D). By using the ADDIE (Analysis, Design, Development, Implementation, Evaluation) development model using integrated with the PEDATI learning system design model. The subjects in this study were students in the third semester of the Early Childhood Education Teacher Education Study Program (PGPAUD) STKIP Muhammadiyah Bogor. The result shown is a multimedia feasibility assessment by the material expert obtained a score of 83% (good). The feasibility assessment by media experts obtained a score of 89% (good). Based on the results of the researchers, it can be concluded that the online learning activities of STKIP Muhammadiyah Bogor students are effective. From this calculation, the average N-Gain of students was obtained as much as online learning of STKIP Muhammadiyah Bogor students in the High N-Gain category, which was 0.78.

Keywords: Online learning, Google classroom, Early childhood language development course.

Introduction

It has been 2 years since we have to adapt to the so-called covid 19 pandemic. The COVID-19 pandemic affects all activities of human life today, from sports activities, offices, even to transcendental relationships for all religious believers in the world, including the field of education. Educational activities that are closely related to interactions that involve many people, educators with students in one learning environment face to face. Due to the Covid-19 pandemic, in-person interaction was stopped (social distancing) and replaced with distance learning activities (online) by utilizing internet media. This applies to all levels of education ranging from higher education, secondary education, elementary school and for early childhood education. In this 21st century, the era of the industrial revolution that had previously entered the 4.0 era and which will even have entered the 5.0 era, time and space are no longer the barriers and obstacles in the delivery of information and communication.

Based on preliminary observations, it shows that the average score of students in the Early Childhood Language Development course of STKIP Muhammadiyah Bogor has not shown a significant increase. Based on the results of previous observations made at STKIP Muhammadiyah Bogor, there is no use of the web as a learning medium in the third semester, especially the Early Childhood Language Development course. In this case, the author developed an online learning system at STKIP Muhammadiyah Bogor, including the covid-19 pandemic conditions and all students who were forced to study from home or distance learning.

Definition of Model Development Model is a set of sequential procedures to realize a process, such as assessment of a need, selection of media, and evaluation. The basic cybernetic model of input is processed to produce as desired and then compared with the desired, if there are differences, it is reprocessed to get the appropriate results. The terms development and design actually contain different meanings.

IDI (Instructional Development Institute) Model

Some of the popular instructional development models include the IDI (Instructional Development Institute) model developed by the University Consortium for Instructional Development and Technology (UCIDT) in 1971. This model was developed with three stages, namely the formulation stage, the development stage, and the assessment stage.

The model created by Walter Dick, Lou Carey, and James O. Carey or popularly called the Dick and Carey Model is the Dick and Carey Development Model Dick & Carey model is a development model developed through a system approach (System Approach). System model

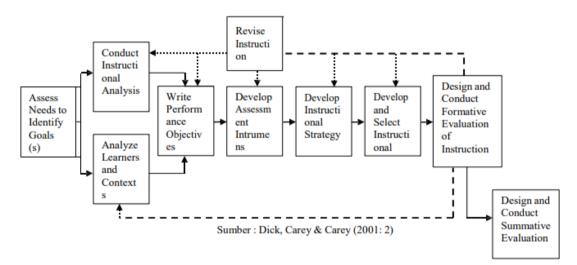


Figure 1. Dick & Carey's Development Process Flow

Briggs Model

This Brigs model is oriented towards system design with the target of lecturers or teachers who will work as designers of instructional activities and instructional development teams whose composition of members includes: lecturers, administrators, experts in the field of study, evaluation experts, media experts and instructional designers.

Brigs believes that a lot of knowledge about teaching and learning can be applied to all learning in the field of education and practice. He therefore argues that this model is also appropriate for the development of job training programs, not just limited to academic programs. On the other hand, this model is designed as an instructional problem-solving methodology.

ASSURE Model

Design is a term taken from the word design (English) which means planning or design. Some interpret it as "preparation". In the science of educational management or educational administration, planning is referred to as planning, which is "preparation for making a decision in the form of steps to solve a problem or the implementation of a work that is directed at achieving certain goals". Thus the purpose of a design is to achieve

the best solution in solving problems by utilizing a number of information available through a design people can take systematic steps to solve a problem faced (Sanjaya, 2008).

The Assure learning model is very helpful in designing programs using different types of media. The benefits of the Assure model are:

- 1) Simple, so it can be developed by the teacher himself.
- 2) Complete KBM (Teaching and Learning Activities) components.
- 3) Students can be involved in preparation for KBM. (Santoso, 2019).

Here's the ASSURE model chart



Figure 2. Bagam Model ASURE

Model Gerlach and Ely (1980)

The Gerlach and Ely learning model is a systematic teaching planning method. This model is a guideline for a learning journey map because in this model it is shown the entire process of good teaching and learning, every component. This model also shows the relationship between one element and another and presents a sequence pattern that can be developed in a learning plan even if it does not describe in detail

Here's a model chart of Gerlach and Ely (1980)

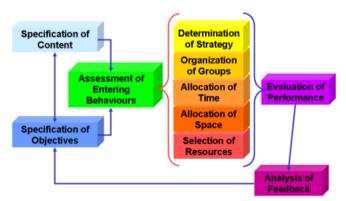


Figure 3. Gerlach and Ely Model Chart

Model bela H. Banathy

The Instructional development of this Banathy model can be informed in six steps as follows:

First step; formulating objectives (Formulate objectives) Step two; develop a test (develop test) the third step; analyze learning tasks Fourth step; designing instructional structures (design systems) Fifth step; carrying out obedience and testing the results (Implement and test output).

Model PPSI

Instructional System Development Procedure stands for instructional system development procedure. The term instructional system implies that PPSI uses a system approach where learning is an organized whole, consisting of a set of components that are interconnected and cooperate with each other functionally and integrated in order to achieve the expected goals.

The sixth step; make improvements (change to improve). (Rahardjo, R., 1986)

ADDIE Models

The ADDIE model is one of the development models that is often adopted by learning model developers. Robert Maribe Branch in his book entitled Instructional Design: The ADDIE Approach says that "ADDIE is a generative process because it applies concepts and theories to specific contexts. "ADDIE is a generative process because it applies concepts and theories. ADDIE is used in educational environments to facilitate the construction of knowledge and skills during guided learning episodes. Guided learning is the search for mutually agreed expectations between students and teachers.

Research Methodology

The objectives of this study are:

- 1. To analyze the learning development process of google classroom courses early childhood language development students in the third semester of the Early Childhood Education Teacher Education Study Program (PGPAUD) STKIP Muhammadiyah Bogor.
- 2. To analyze the feasibility of online learning google classroom early childhood language development courses based on the ADDIE model integrated with the PEDATI model for third semester students of the Early Childhood Education Teacher Education Study Program (PGPAUD) STKIP Muhammadiyah Bogor.
- 3. To analyze the effectiveness of google classroom-based online media for learning early childhood language development courses for third semester students of the Early Childhood Education Teacher Education Study Program (PGPAUD) STKIP Muhammadiyah Bogor.

This research was conducted at STKIP Muhammadiyah Bogor which is located at Jl. Jalan Raya Leuwiliang No. 106 Bogor 16640 Bogor Regency, West Java Province. The subject of his research was a third semester student of the PAUD Teacher Education Study Program.

One of the important parts in research activities is the means used by researchers or research methods. In the research method, an approach is needed that will be used as a foothold in the series of research implementation. Choosing a certain approach in research must be realized that it has its own consequences as a process that must be followed consistently from beginning to end in order to obtain maximum results and scientific value according to the capacity, reachability and intent of the approach. In order for research to produce a product, discussion, analysis or conclusion that is good and accountable, then of course it must pay attention to all aspects that support a research to run well and avoid bias.

The research method is a means for the researcher to communicate his thoughts on the problem under study and serves to convince the reader or assessor to provide benefits related to the discipline concerned. Method is defined as a way or technical that is carried out in a research process (Mardalis, 2003).

The development of online learning media in this study uses the ADDIE model which includes Assessment / Analysis, Design, Development, Implementation, and Evaluation. The following are the stages of the process in the ADDIE model taken from the multimedia-base book Instructional Design by William W. Lee and Diana

Owens:

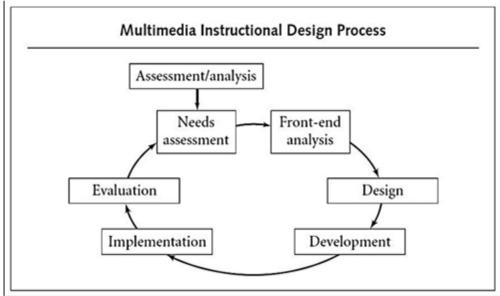


Figure 4. Multimedia Instructional Design Process

Assessment/Analysis

Need Assessment

Need Assessment is carried out to determine the needs of making and developing learning media. Need Assessment is carried out by analyzing campus conditions and students. In this study, the Educational Institutions studied were students in the third semester of the Early Childhood Education Teacher Education Study Program (PGPAUD) STKIP Muhammadiyah Bogor.

Front-end Analysis

1) Audience Analysis

The main target of users of this online learning media is students in the third semester of the Early Childhood Education Teacher Education Study Program (PGPAUD) STKIP Muhammadiyah Bogor. Users must have an e-mail address as a username to be able to take classes into a Google Classroom application.

2) Technology Analysis

The technology needed in developing this online learning media includes

Design

a. Instructional Goals

Instructional goals in this learning media are to understand and understand the general description of computer materials and their development history, understand hardware and software and their types and functions, understand computer-based operating system software.

b. Overall Approach Selection, Shape and Appearance

The approach taken to the development of this learning media is to use several web pages containing material equipped with learning images and videos, as well as some practice questions.

c. Designing Specific Learning Materials: The design of materials for learning media in the Early Childhood Language Development course includes:

- 1) Students can know and understand the role of the brain in language development
- 2) Students can identify and elaborate theories of language acquisition

Development

This stage is the stage where the results of the previous design process are realized in tangible form. In this study, the design that has been made is implemented into the actual form of the web including all the apsek in it; video, document and the web part itself.

Here are some of the activities carried out to develop a web-based media:

a. Create a Story Board

The storyboard of this media is as follows:

1) Home/ Home Page



Figure 5. Home Menu Storyboard

2) Material Page



Figure 6. Material Pages

b. Creating and Assembling Media Elements

The media elements used in this learning media are web-based media in the form of text, images, presentations, etc. Development begins by collecting materials that are in accordance with the competency standards and basic competencies used. Further collecting media such as images and graphics related to the material.

c. Implementing Media Developers implement media starting with designing sections on the google classroom template by building several menu components and articles given to students, both in the form of videos, images, and text with insert the material in each navigation menu created.

Implementation

Implementation is a real step in implementing a product that is developed. At this stage of development implementation, all elements that have been developed are able to be arranged so that they can run in accordance with the expectations of their respective roles and functions. In this study, the application developed was implemented into a web-based application which can then be used and can be tested by users in this case are students

Evaluation

Evaluation is a process to be able to see the extent to which the online learning system developed is able to succeed and is in accordance with expectations or not. The media that has been developed in this study will be able to be tested for later revision. After that, online learning media can be retested after being revised to produce a final product of learning media that is in accordance with the intended goals, objectives and criteria in online learning.

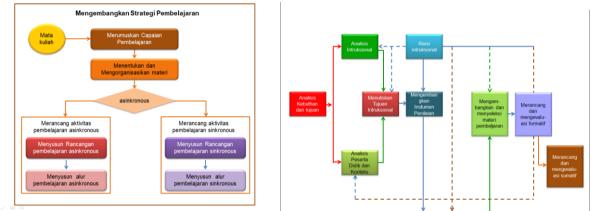


Figure 7. Online Learning Development Flows

Research Results

Researchers developed online learning courses for Early Childhood Language Development for third semester students of the Early Childhood Education Teacher Education Study Program (PGPAUD) STKIP Muhammadiyah Bogor.

1. Needs Analysis Results

The development of online media for the Early Childhood Language Development course for third semester students of the Early Childhood Education Teacher Education Study Program (PGPAUD) STKIP Muhammadiyah Bogor is based on the needs in the field. The results of the needs analysis found that there was no availability of special online materials that could be used to supplement online materials, especially by using the Blended Learning method. On the other hand, the availability of internet network facilities in the workplace, positive support from agencies for online-based learning, device facilities, and internet networks owned by trainees at home, as well as the accustomedness of training participants in accessing learning materials via the internet support the implementation of online-based learning.

2. Asynchronous and Synchronous Learning Model

After mapping the material, the next step is to select and determine synchronous and asynchronous learning activities. Through this analysis, it is determined whether a particular material will be optimally achieved through asynchronous learning strategies or through synchronous learning. The process of selecting and determining asynchronous and synchronous learning strategies is carried out based on the level of hierarchy of learning objectives. Based on this, it is concluded that the ideal division for asynchronous learning settings is 70% and synchronous by 30%.

	Tujuan		Sub Pokok	Materi	Aktivitas	
No.	Pembelajaran	Pokok Bahasan	Bahasan	Pokok	Pembelajaran	
					Sinkron	Asinkron
1	Mahasiswa memperoleh pengetahuan tentang konsep perkembangan bahasa anak usia dini, metode pengembangan kemampuan bahasa anak usia dini. Melakukan analisis kurikulum yang berlaku pada aspek bahasa	Mahasiswa dapat mengetahuidan memahami peran otak dalam perkembangan bahasa	Perkembangan otak anak, Bagian-Bagian Otak, Otak dan perkembangan kognitif AUD	Peran otak dalam perkemban gan bahasa anak usia dini	4	4
2	Mahasiswa Mahasiswa memperoleh dapat pengetahuan mengidentifikasi tentang konsep dan perkembangan menguraikan bahasa anak usia teori-teori	kedua	Perolehan bahasa pertama dan kedua	~	1	
		 Teori kognitif 	Teori kognitif	1	1	
	dini, metode pengembangan	pemerolehan bahasa	 Teori behavioral 	Teori behavioral	1	1
	kemampuan		 Teori sosial 	Teori sosial	1	1
	bahasa anak usia		Teori	Teori kon-		
	dini. Melakukan analisis kurikulum yang berlaku pada aspek bahasa		konstruktive	struktive	1	V
	Mahasiswa	Mahasiswa	 Fonetik 	Fonetik	1	1
3	memperoleh	memiliki	 Semantik 	Semantik	1	1
	pengetahuan	pengetahuan	 Sintaksis 	Sintaksis	1	1
	tentang konsep	perkembangan	 Morfemik 	Morfemik	1	1
	perkembangan bahasa anak usia dini, metode pengembangan kemampuan bahasa anak usia dini. Melakukan analisis kurikulum yang berlaku pada aspek bahasa	bahasa usia bayi dan batita	 Pragmatik 	Pragmatik	4	V

Table 1. Asynchronous and Synchronous Learning Mapping

3. Asynchronous training activity design model

Asynchronous training activity design model

Based on synchronous and asynchronous learning mapping, a Sub-Subject matter is obtained which will be carried out asynchronously. Furthermore, the process of designing asynchronous learning activities is carried out. The asynchronous learning process is described as follows: Course: Early Childhood Language Development

Course. Durry Childhood Durgauge Development

Learning Outcomes: Students can know and understand the role of the brain in language development Subject Matter 1 : Child's brain development, Brain Parts, Brain and Cognitive Development AUD

	Sub Pokok Bahasan	Materi Pokok	Strategi Pembelajaran Asinkron				
No			AsinkronMandiri		Asinkron Kolaboratif		
			Media Digital	Asesmen			
				Tes	Diskusi Daring	Tugas Daring	
1	Perkembangan otak anak, Bagian-Bagian Otak, Otak dan perkembangan kognitif AUD.	Peran otak dalam perkembangan bahasa anak usia dini	PPT	soal piliban ganda sebanyak 10 soal	Diskusi daring via zoom met tentang perkembangan otak anak	Mengisi soal pilihar ganda sebanyak 10 soal yang diisi via google form	
2	 Perolehan bahasa pertama dan kedua Teori kognitif Teori behavioral Teori sosial Teori konstruktive 	<u>Teori-teori</u> Perolehan bahasa	Video	soal piliban ganda sebanyak 10 soal	Diskusi daring via zoom met tentang teori- teori pemerolehan bahasa	Mengisi soal pilihan ganda sebanyak 10 soal yang diisi via google form	
β	 Fonetik Semantik Sintaksis Morfemik Pragmatik 	Perkembangan Bahasa Pada Bayi	Video	soal pilihan ganda sebanyak 10 soal	Diskusi daring via zoom met tentang perkembangan Bahasa pada bayi	Mengisi soal pilihan ganda sebanyak 10 soal yang diisi via google form	

Table 2. Asynchronous Learning Design Online Learning Materials

4. Synchronous learning activity design model

After designing asynchronous learning, the next step is the process of designing synchronous learning activities.

5. Development Model and selecting learning materials

The development of learning materials is guided by the results of synchronous and asynchronous learning designs that were previously late to be made.

6. Final Model (Development)

1) Main Page



Figure 8. Main Page/Home

2) Material Page

On the sidebar menu of the material page there is no menu navigation that is presented including:

- a. View Materials button, to open the lecture material page
- b. Download Material, to download get material in the form of an ebook that has been provided / inserted
- c. See Sub Material, to open learning materials based on subs of the material provided.

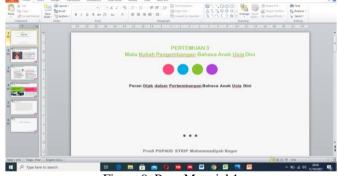


Figure 9. Page Material 1



Figure 10. Page Material 2 Meeting 4

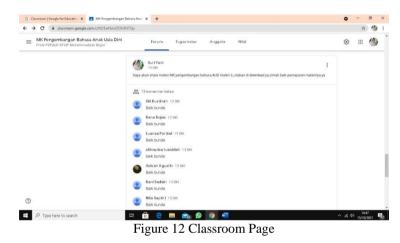


Figure 11. Page Material 3

3) Classroom Menu Page

On the sidebar menu of the classroom page there is no menu navigation that is presented including:

- a) Matari View button, to open the lecture material page
- b) Join GoogleMeet button, to follow online learning using the google meet conference video application
- c) Classroom login, to open and follow the piracy management system.



Conclusion

Based on the development process and test results of online learning media in the Early Childhood Language Development course for third semester students of the Early Childhood Education Teacher Education Study Program (PGPAUD) STKIP Muhammadiyah Bogor, it can be concluded as follows:

- 1. The development model used is the ADDIE model which consists of 5 stages, namely 1) Analysis (analysis), 2) Design (design), Development (build), 3) Implementation (implementation), 5) Evaluation (evaluation). The ADDIE model is integrated with the PEDATI learning system design model.
- 2. Online learning media supports the distance learning process
- 3. Feasibility Online learning media is determined based on the validation results of material expert tests, and learning media, trials by lecturers, and student responses are as follows:

a. The material expert assessment obtained an average score of 88% which means "Very Good". This means that in the material aspect developed layak is used for research.

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