

# Development of Team Based Project Based Teaching Materials In the Media and Sources Course Learning for Early Childhood

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**Abstract:** This research aims to describe students' skills in creating media and resources for early childhood through teaching materials in media and resources courses towards achieving student competency in media courses and learning resources for early childhood. It is hoped that with the teaching materials used in media courses and learning resources for early childhood, it is hoped that students will find it easier to understand the material and in accordance with the competencies they want to achieve in media courses and learning resources for early childhood and can improve students' abilities. In analyzing learning activities on real assignments based on team based projects through media courses and learning resources for early childhood. Based on lecture needs, namely teaching materials that can properly integrate real assignment material based on team based projects. In this research, the Borg & Gall method will be used to develop teaching materials[5]. Based on the results of validation and testing of teaching materials, it can be concluded that the development product meets the very good criteria and meets the very appropriate qualifications. The results of the analysis show an average presentation of 80.3% for good qualifications.

**Keywords:** team based project, media and learning resources, early childhood

## 1 Introduction

The learning resource media course is one of the mandatory courses for students, because in this course students are required to be able to understand how to make learning media for early childhood, design teaching materials, procedures for making and using the media itself, up to correct media storage. Students are also expected to be skilled in using media and learning resources for early childhood. Students must also know how to determine the materials that will be used to make learning media because of selecting the materials that will be used in making learning media. Apart from that, students must also know the criteria for selecting good media and learning resources. The selection of media and learning resources cannot be generalized because they must be in accordance with their needs and characteristics[1]. The choice of good media must also be appropriate to the target and in accordance with the objectives so that the learning process becomes more effective and also more interesting for young children. The right choice will also make learning activities more optimal. Suitability criteria in selecting media must be in accordance with the objectives, type of knowledge, suitability based on targets, ease of obtaining the media, characteristics and

quality of the media itself. The presence of media and learning resources can also support children's needs to obtain material that is easier and quicker to obtain. Of course, you must prepare suitable media and learning resources to assign to children, because the right media a The selection of teaching materials and learning media must refer to cognitive, affective and psychomotor development in children's development so that it is in accordance with the objectives of selecting appropriate and appropriate teaching materials which will later influence aspects of the child's intelligence as well as aspects of his attitudes and actions. Teaching materials that suit learning needs must be in accordance with reality and concepts so that the teaching materials presented are easier to understand and aligned with children's needs. Based on this, playing (learning) activities which are a child's world are very important because playing activities using media and learning resources can fulfill all aspects of a child's happiness. Therefore, these media and learning resources cannot be separated from children's needs and are very much needed in the child's development or learning process. Play activities for early childhood are important because for children the world is in play activities, when children feel happy it shows that the child's growth process is happy to increase, this can make it easier for children to participate in the learning process. and learning resources will help in achieving optimal child development.

In the media teaching materials and learning resources, it will be explained how to design, create and use educational game tools (APE). Educational teaching aids are specially designed to have a special function to stimulate the development of early childhood, including the development of religious moral values, cognitive, language, social emotional, artistic and motor skills. Apart from being practical, educational teaching aids can also be played by children freely, whether playing alone or in groups with guidance from parents or teachers. When playing it, children will explore the game so that the child's development develops optimally.

Media and learning resources are one of the components or elements of early childhood learning and play an important role in holding interesting and meaningful learning activities for children. Munadi [2] defines learning media as "anything that can convey and channel messages from sources in a planned manner so as to create a conducive learning environment where recipients can carry out the learning process efficiently and effectively". This illustrates that the future will be influenced by competent competence and skills. [11] One of the skills that must be possessed is the skill in developing media and learning resources for early childhood so that they can carry out innovative, interactive, interesting, fun and meaningful learning activities. Based on the results of observations, it turns out that media learning and learning resources in the early childhood education study program currently do not have teaching materials that integrate media courses, teaching materials in this course still use books from publishers so they are not in accordance with the scope of material in media courses, and It is difficult for students to adapt, this media and learning resources course also does not have teaching materials that explain how to choose materials in making good media, designing appropriate media for children, making and using media.

The choice of learning media must also be appropriate and meet several requirements, because each product used as a learning media must have certain standards so that the product can be suitable for use by young children. Selecting the right media also requires looking at whether the media can increase the creativity of media users, for example it can increase children's concentration and can develop development in every aspect of their development. From an economic media perspective, in selecting learning media, one must choose one that is economical and easy to use and can be used many times, is safe, attractive and long-lasting, and uses materials with bright colors so that it is attractive to children and can motivate them.

children to be interested in using these learning media so that all aspects of children's development can be well stimulated and develop optimally.

Through teaching materials, media and learning resources will be explained in detail according to the needs of students so that learning outcomes can be met properly. The use of teaching materials apart from making it easier for students to understand lecture material in media courses can also provide motivation to students and is added to this by using learning methods. In this research, the Team Based Project learning method will be used, a method built on real project-based learning activities and tasks that provide challenges for students related to everyday life to be solved in groups[3]. This learning method is also in accordance with real products that will be completed by students, students will solve a problem and provide a solution together in the form of a project that is done together. Based on this, this research will create teaching materials for media courses and learning resources based on the team-based project learning method as teaching materials that will be used later in media courses and early childhood learning resources.

## **2 Research Methods**

The aim of this research is to develop new products or improve products that have been created previously [4]. The products developed in this research are team-based project-based teaching materials for media courses and learning resources for early childhood. The design in the research uses the development method developed by Borg and Gall. The research developed by Borg & Gall has several characteristics that underlie the choice of this research method, one of the methods being the method developed by Borg & Gall through ten stages where each stage must be completed and be continuous with one another. The first stage is the preliminary and information gathering stage, at this stage the researcher looks at what problems occur and needs to be resolved as a solution, the second stage is at the planning stage at this stage the researcher makes a plan to design the product to be completed, the third stage is at the Initial product development, namely when designing teaching materials, researchers create and design initial products to be continued to the next stage, the fourth stage is initial product testing, namely when the initial product has been completed, researchers carry out initial product trials, the initial product of which is teaching materials to be tested. try it on students, after it has been tested, several parts of the teaching materials are revised to get good results, then the product is tested again until at the final stage the product in the form of teaching materials gets a final product revision and the teaching materials product is declared suitable for implementation. to students. The research was carried out at the PG PAUD Faculty of Education, Medan State University. Study Program from March to October 2023.

This research uses a population of PG-PAUD students who take Media and Learning Resources courses for AUD and the research sample is all these students using random sampling techniques for small and large scale use trials. Data collection was carried out by conducting observations in the experimental class and the data taken was quantitative data. As for the data analysis, a quantitative test was then carried out in the form of a regression analysis which had the aim of seeing whether there were any changes or developments that occurred in students after using teaching materials in media courses and early childhood learning resources. Then an observation was carried out to find out whether the teaching materials used were in accordance with students' needs in media courses and early childhood

learning resources. Regression testing was also carried out using research instruments that had been created to see whether learning outcomes were in accordance with the RPS used in line with the teaching materials used by students. In this research, data analysis is used to determine the magnitude of effectiveness in developing teaching materials. The data collection instruments used in this research are used to determine initial data as material for developing models that suit the needs in the field. Instruments are also used for the process of collecting data regarding the level of effectiveness and appropriateness of the media teaching materials and learning resources being developed. The value scale used in this research and development uses a Likert scale.

### **3 Results and Discussion**

The development of teaching materials in media courses and early childhood learning resources based on team based projects was developed using the Borg and Gall development method. The Borg and Gall method uses ten stages where each of these stages is related to one another. Starting from gathering information, planning stage, initial product development stage, initial trial stage, main product revision stage, main trial stage, product revision stage, product trial stage, final product revision stage and finally the implementation stage for students.

In detail, the results of the analysis are presented based on the formulation of the problem proposed and the research output designed as stated below: The development of media teaching materials and learning resources for early childhood is carried out by researchers who are also lecturers in charge of these courses, collaboration between lecturers who are experienced in media courses and early childhood learning resources so that new ideas and concepts can be included so that can support this research.

#### **3.1 Potential and Problems**

The use of teaching materials that can integrate well and the material contained will make it easier for students to master the competencies they want to achieve in media courses and learning resources for early childhood and can improve students' ability to analyze learning activities on real assignments based on team based projects through media courses and learning resources for early childhood. Teaching materials, namely textbooks in media courses and learning resources for early childhood, are integrated through team based project activities where students directly carry out lecture activities by creating learning media for early childhood together through team activities. Students discuss together to solve problems and provide appropriate solutions to create learning media for early childhood, both manual media, namely educational teaching aids, and digital media such as interactive learning videos according to the child's developmental stage and in accordance with developmental aspects[14]. children who want to be stimulated. Having teaching materials in media courses and learning resources for early childhood can make it easier for students to achieve the competencies and achievements they will have in this course so that learning activities can be carried out effectively and efficiently.

### **3.2 Information Gathering Stage**

Through FGD activities with lecturers who teach media courses and learning resources for AUD and the results of interviews with students, information was obtained that the material in media courses and learning materials for early childhood is the material in lectures in the RPS, learning strategies and assignment plans that will be applied to students. From interviews conducted with students, it was concluded that some students had difficulty accepting the assignments given because there were no teaching material books that were integrated with the material provided in media courses and AUD learning resources[7]. Through teaching materials in media courses and learning resources for early childhood which will be developed, it is hoped that it can help students understand and deepen the material presented in the teaching materials, as well as the application of team based project learning methods to make students more active in lecture activities and help develop a pleasant learning experience created through activities regarding the procedures for making Educational Props (APE) through direct practical activities. So far, students do not have teaching materials that are appropriate to their achievements in media courses and learning resources for early childhood. This is important and must be paid attention to so that achievements in media courses and learning resources can be achieved well.

### **3.3 Product Design**

The analysis carried out in these conditions meant that the researcher developed teaching materials that were integrated with material in media courses and learning resources for Early Childhood based on the RPS[8]. Apart from that, this media and learning resources book is also equipped with procedures and practices for making learning media and APE for early childhood. Media and learning resources courses have more practical activities than theory which are carried out in carrying out project assignment activities carried out through team based project methods[9]. The product design that will be used will also include several images related to the teaching materials that will be developed. In-depth understanding of the material will be presented through discussion of the questions in each chapter of each material. This is done for students so that students can get used to reviewing the material they have read.

### **3.4 Design Validation**

Through discussions carried out by the researcher and the research team, it was agreed to carry out design validation[6]. This validation was carried out together with experts according to their field of expertise and who have experience in making books to assess teaching materials for media courses and learning resources for early childhood. to see how complete the material content, product design is and what the shortcomings and weaknesses are in the teaching material book, which will then be taken into consideration for improvement. The selection of images and designs must also meet the requirements in terms of grammar and writing, because the teaching material product that will be developed certainly has a standard so that the teaching material product that will be used can be suitable for use and foster

interest in reading and understanding the content of the reading material in the teaching material[10].

### **3.5 Design Improvements**

Suggestions for improving the teaching material products being developed include procedures for making APE for early childhood and are equipped with attractive pictures and must be optimized as much as possible so that it is hoped that they can become good teaching materials and become a reference for students in understanding the content of the teaching materials so that Students can apply it to this course and students become interested in reading books, teaching materials for media courses and learning resources for early childhood.

### **3.6 Initial Product Development**

In terms of media teaching materials and learning resources, this is in accordance with what was conveyed by experts that in developing the initial product what must be improved is developing teaching materials through literature studies in accordance with the determination in the title of the teaching materials[12]. Through this literature study, appropriate images, writing layout, colors and designs are also inserted so that they can attract readers and make it easier to understand each sub-topic that will be discussed. The layout is also agreed to be appropriate and refers to correct writing techniques, apart from that, the expansion of the material is also adjusted to the main points that will be discussed in each sub-subject material, additional pictures of how to make media are also included in each subject, so that it will make it easier for readers to understand the content of the material.

### **3.7 Initial Product Trials**

The assessment was carried out through questionnaire testing which was distributed to expert experts, there were several checks, namely on the appropriateness of the content, presentation and use of language. The result was obtained at a value of 2.79. This result obtained a sufficient predicate which was explained that the product was not suitable enough and still needed some From the results of the improvements and input provided by expert experts, it is known that there are additions that must be added, namely providing practice questions contained in each chapter of the material discussion so that students can practice through these questions and there is in-depth material so that it is easier for students to understand.

**Table 1.** Expert Trial

No	Observed Average Score Description	Skor		Average	Description
		Expert 1	Expert 2		
1	Feasibility Content	2,34	2,91	2,88	Enough
2	Servings	3,63	2,64	2,64	Enough
3	Language	3,02	2,92	2,89	Enough
	Jumlah	8,97	8,64	8,48	Enough
	Mean	2.86	2.88	2.79	Enough

**Table 2.** Classification of Expert Trial Assessments

Value	Description
4,0	Very Good
3,0 – 3,9	Good
2,0 – 2,9	Fair
1,0 – 1,9	Less

### 3.8 Major Product Revisions

The researcher and the team discussed revising the main product, from the results of the initial product revision the results obtained were still relatively low, so the input given by two experts said that several revisions had to be made, namely the appropriateness of the content, the presentation of the material and the language aspect by adding several theories that are appropriate to the discussion and adding more interesting pictures, as well as adding discussion questions to the material placed at the end of the discussion of each chapter, as well as paying attention to the layout of the writing and the correct use of sentences.

### 3.9 Key Product Trials

The trial was carried out on 6 students who had taken media and learning resources courses for early childhood, where the test was carried out on a limited basis and obtained a result of 3.56 and received a good predicate. From this assessment it can be continued at the next stage, namely group trials large so that later it can be seen how well the teaching materials can be used. The test results can be seen in the following table:

**Table 3.** Key Product Trials

No	Observed Average Score Description	Evaluation						Average
		1	2	3	4	5	6	
1	Feasibility Content	3,62	3,65	3,76	3,71	3,64	3,66	3,68
2	Servings	3,63	3,61	3,59	3,82	3,65	3,68	3,58
3	Language	3,82	3,72	3,82	3,73	3,76	3,82	3,72

Jumlah	11,06	11,02	11,17	11,21	11,07	11,4	11,00
Mean	3,61	3,60	3,70	3,72	3,63	3,76	3,56

**Table 4.** Classification of Expert Trial Assessments

Value	Description
4,0	Very Good
3,0 – 3,9	Good
2,0 – 2,9	Fair
1,0 – 1,9	Less

From the results of the limited group trial, a result of 3.56 was obtained, so it can be concluded that it received a good predicate and from this result it can be continued to the next stage, namely that it will be tested on a large group.

### 3.10 Major Product Revisions

The trial that was carried out and received a score of 3.58 on media teaching materials and learning resources received a good predicate, so the researcher and the team carried out a review by discussing the teaching materials that would be developed. This revision had the aim of reducing the level of errors made at the time. ongoing development of teaching materials[11]. The most frequently found errors are in writing, sentence layout, spelling, images that are not clear enough so that they need to be paid more attention to and create more attractive image designs so that they can arouse interest in the readers of the teaching materials. From the results obtained and stated to be in the good category, the media teaching materials and learning resources are still being reviewed to see if there are things that need to be refined again.

### 3.11 Product Trial

Students were involved in testing this product, the number of students involved was 25 students. Students are asked to assess the teaching materials that are being developed. These teaching materials are assessed in terms of book content, presentation and use of language. From the results of this trial it was found that the results reached 3.74 with a good predikat[13]. This good predicate is a reference that the revision is not continued because it is considered good.



**Table 5.** Results of Large Group Trials

Aspect	Description	Score	Average
Content	Contents Conformity of material with CPL	90,0	3,53
	Feasibility Accuracy of material	89,0	3,56
	Supporting material	91,5	3,66
	Latest material	88,8	3,55
Serving	Serving presentation	93,0	3,73
	Presentation support	92,5	3,70
	Presentation of learning	93,0	3,72
	Completeness of presentation	93,5	3,74
Language	Straightforward Language	95,5	3,82
	Communicative Language	95,3	3,81
	Dialogic and interactive language	93,0	3,72
	Language is appropriate to student development	92,0	3,66
	Integration of language and flow of thought		
	Use of terms, symbols or icons	95,5	3,82
	<b>Average</b>		<b>3,74</b>
	<b>Description</b>		<b>Good</b>

**Table 6.** Classification of Expert Trial Assessments

Value	Description
4,0	Very Good
3,0 – 3,9	Good
2,0 – 2,9	Fair
1,0 – 1,9	Less

### 3.11 Final Product Revision

From the results of the trials carried out on large groups, it can be seen that the results of the large group trials were 3.74 with a good predicate, so revision activities on media teaching materials and learning resources were not continued for the next revision. In this way, it will proceed to the next stage, namely the stage of the copyright process and then printed so that it can be used by students as teaching materials in media courses and learning resources for early childhood.

### 3.12 Dissemination and Socialization

In this final stage, the finished teaching materials will then be disseminated to students and the lecturer team who will teach this course, and these teaching materials will also be disseminated to be used in the environment in the early childhood teacher education study program, which in turn has high hopes for the teaching materials. This media course and learning resources can be useful for anyone who uses them. For teachers and prospective

teachers who teach early childhood. The results of the product in the form of teaching materials for media courses and learning resources for early childhood are products that are suitable for use and use. So that when students use these teaching materials they can gain new learning experiences and improve their skills in creating early childhood learning media. Student understanding also when studying the material provides deep meaning to students and motivates them to continue learning.

## 4 Conclusion

Learning is the main thing that is done to achieve learning outcomes and learning outcomes in each course. The objectives to be achieved are as outlined in each RPS for each course so that learning activities can run effectively and efficiently. Through good planning, it is hoped that each lesson will ensure that learning activities can run effectively and in accordance with the main learning objectives.

Teaching materials in media courses and early childhood learning resources based on team based projects were achieved well and according to expectations, and can be used as teaching materials in media courses and learning resources for early childhood. Teaching materials in media courses and team-based project learning resources provide learning experiences that are appropriate to the course and graduate learning outcomes and course learning outcomes, because they are designed according to the stage of development and knowledge and learning experiences of students as outlined in the teaching materials in the course. media lectures and early childhood learning resources. Teaching materials in media and resource courses for early childhood can increase students' motivation, thinking power and interest in continuing to learn and understand each subject matter presented. Based on the research results and future activity plans, it can be recommended to continue completing the research and test the effectiveness of using teaching materials, namely media books and learning resources for early childhood in media and early childhood learning resources courses.

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