

Development of an Inquiry-Transactional Based Learning Model for Historical Aspects of Moral Education in Junior High Schools

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Abstract

The purpose of this research is to develop a model of learning material for the history of the development of culture in the world and China. The study uses research and development methods. Learning materials are developed based on an inquiry approach - transactional. The research was conducted at a junior high school, involving 8 experts, 26 students and 2 teachers, 2 education officers, and parents. The results of the study are: (1) a conceptual model of learning design for historical material on the development of culture in the world; (2) learning design procedural models to develop learning materials; (3) a set of models of learning materials for the history of cultural development in the world, consisting of printed materials, interactive multimedia, teacher guides, and teaching aids.

Keywords: learning model, transactional inquiry, learning design, research and development

I. INTRODUCTION

Character education is one part of the path of efforts to improve the quality of human beings. Character education in schools is a conscious effort to prepare students to understand, be skilled at carrying out, and practice character through educational activities. This educational activity is to form students into human beings who have a noble character, have a noble character, and can experience a process of increasing spiritual potential.

Character education as one of the subjects has a very strategic role in the formation of students'

morals and ethics. At present, the need for improvement in character education is more prominent. For example, the emergence of youth gangs among students is seen as a failure of character education to create students with character or cultural personalities. This phenomenon is also difficult to escape from the weakness of the leading actor in the moral education process in the classroom, namely the moral education teacher.

This study developed an inquiry-transactional-based learning model for the historical aspect of the Moral Education [1] subject in junior high schools. This study produced 3 learning models, namely conceptual models, procedural models, and physical models. The conceptual model explains the meaning of learning, the principles of research and learning, schools of psychology, and their application to the inquiry-transactional ap-

proach. The procedural model explains the purpose of learning design; various types of learning design models; and produces a learning design model, a research and development model used in this research. Finally, the physical model explains the learning materials; the position of developing learning materials in educational technology; material arrangement; the anatomy of a book; learning material assessment criteria; as well as supporting facilities for learning materials; and the form of learning materials as the final product of this research and development.

A. Learning

Learn

Learning is a processing activity and a fundamental element in every type and level of education. Educators need to correctly understand the meaning of learning in all its aspects, forms, and manifestations. Based on several definition of learning from the expert, it can be concluded that learning has the following main characteristics: (1) A change in human character and abilities in the form of knowledge or cognitive, skills or psychomotor, and or student behavioral or affective attitudes due to learning experiences; persist over a while and not simply because of a process of growth. Changes that fade after a few hours do not reflect learning; (2) The approach is multi-dimensional within the individual and occurs when experiencing complex difficulties; and (3) the Human experience rarely understands what something that has been learned means, but other people can see it more. [2]

Learning is a relatively permanent and meaningful change in knowledge, skills, and or behavioral attitudes in students' lives as a result of a process of experience in interacting with the environment [3].

The principle of learning falls into 12 principles [4]. Three of them are suitable for use in the development of the historical aspect of the Moral Education learning model, which is the focus of this research. First, the inquiry-transactional learning process is a learning experience process for students. Experiential learning refers to interactions between students and external conditions in the environment that he can react to referring to

student interactions. It is also supported by Krathwohl and Bloom, who stated that experience in learning is the best category in achieving goals [5] [6]

Learning

Learning is a planned interaction process between students and learning resources to achieve specific changes in behavior permanently. The source of learning can be in the form of a teacher or in the form of learning media. At the same time, changes in behavior can take the form of additional knowledge, skills, and or behavioral attitudes. [7] In addition, from various learning principles, it can be concluded that transactional inquiry learning is carried out by applying various psychological schools in combination.

Learning materials are learning materials that are based on learning objectives. The learning materials developed in this study are textbooks, interactive multimedia, teacher guides, and student guides. Teachers can write the learning materials to be used in the learning process. However, teachers can also use textbooks or other materials and information that are already on the market to be repackaged or arranged so that they can become learning materials.

To produce learning materials considered to be of good quality and relevant to students in carrying out the formative evaluation process. This study uses several assessment criteria that combine several learning material assessment criteria [8]. The learning material assessment criteria used in the study were goal-centered, student-centered, and learning-centered. Until now, the availability of learning materials in the form of textbooks for junior high school students, especially for moral education subjects, is still limited. The teacher's method in conveying learning material, especially material on the history of the development of culture in the world, still focuses on ways that do not motivate students to be more active, creative, innovative, and have fun learning.

This condition shows that there is a gap between expectations and reality. Therefore, this research is focused on several things, namely, describing the implementation of ethical research on the historical aspects of cultural development in the world that have been going on so far.

B. Behaviorism

Learning is a process of changing behavior that others, including the teacher, must observe. Students are called successful in learning if they can solve problems by demonstrating visible behavior, for example, correctly answering math questions and economics knowledge, analyzing social cases, or working on certain physical skills, worshiping according to their religion, and so on. All of those behavioral changes are predetermined as learning goals. Practice in teaching is that students are declared successful when they show the expected behavior in plain view and do not hide it [9].

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This research aims to develop a learning model for world cultural history as part of the Moral Education subject for junior high schools. In more detail, the specific objectives of this research can:

1. Develop a conceptual model of ideal learning materials.
2. We are developing a learning design procedural model used in developing learning materials.
3. Produce a physical model of new learning materials that meet all the criteria, namely goal-oriented, student-centered, learning process, and context, and following the technical standards of learning materials.

II. METHOD

A. Location and Time of Research

This research was conducted in junior high schools in Guangdong, China, from February 2017 to July 2017, involving experts, students, teachers and education officials.

B. Characteristics of the Developed Model

The features of the learning model developed in this study are:

- (1) This study targets students and teachers
- (a) Teachers already have the essential ability to make a simple learning design.
- (b) Students have studied the history of the development of croc-

odiles and human behavior, as well as various subjects that develop reasoning, such as Mathematics, Language, Physics, and others. They can be assumed to have analytical or reasoning skills to study human behavior. In addition, they have access to the internet so that it is possible to take part in learning in this study which requires searching for sources;

(2) Material on historical aspects of cultural development on five continents: Asia, Africa, America, Australia, and Europe; (3) learning materials for ethics-historical elements that are developed based on relevant learning theory and learning to the inquiry-transactional approach. This approach was created specifically as a new approach to be used in this study through a conceptual study of its suitability to achieve the goals of learning history in the world. This approach combines inquiry learning methods and transactional interaction activities such as those that occur in the business world.

The inquiry method has the main characteristics of learning activities that emphasize students' critical and analytical thinking processes to seek and find answers to a problem discussed or information in question. What is meant by buying and selling transactions in this study is the exchange of information about historical events in the development of culture in the world, not limited to the discussion of facts and knowledge, but more importantly, understanding and appreciating the values of human struggle on every continent. Thus the inquiry-transactional approach is a complex learning process, and resource and requires the involvement of learning materials, intensive interaction with colleagues, and the teacher as a facilitator; (4) the model of learning material developed refers to good technical quality to better guarantee its attractiveness, effectiveness, and efficiency.

C. Research methods

This study uses a research and development (R&D) approach Borg and Gall [10]. The R&D approach, as shown in Figure 1 used in this study consists of ten steps as follows: (1) Research and Preliminary Information Collecting; (2) Planning; (3) Developing Preliminary Product; (4) Preliminary Testing; (5) Preliminary Product Revision; (6) Main Testing; (7) Operational Product Revision; (8) Operational Testing; (9) Final Product

Revision; and (10) Dissemination and Implementation.

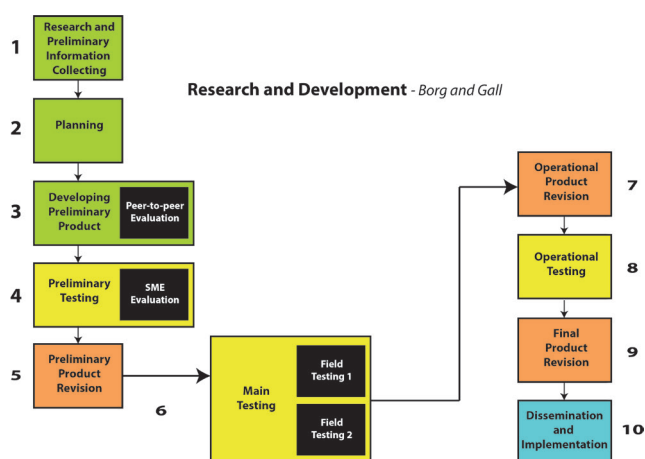


Figure 1. Research and Development according Borg and Gall

Research data was collected using interview guidelines, questionnaires, and checklists for field observations. The criteria used in compiling this data centered on goals, students, learning, context, and technical.

III. RESULT AND DISCUSSION

The learning materials produced in this study were designed according to the learning design. Learning design is a systematic process in planning learning to achieve relevant and effective learning objectives. This process includes selecting material or content, determining the sequence of student activities, selecting appropriate methods, media, and tools, making learning materials, evaluating, and revising.

The learning model is designed using learning principles so that the material in it is arranged systematically like the systematics of the activities of people who are teaching. The inquiry-transactional learning approach is a learning process that combines inquiry methods with market strategies. Within the market strategy, there are information transaction activities. The information transactions referred to are conditions like information trading in a market-like atmosphere. The formulation of the problems in this study are:

1. What is the ideal conceptual model of learning materials?
2. How is the learning design procedural

model used in developing learning materials?

3. How is the physical model of new learning materials that meet all the criteria of learning materials, namely goal-oriented, student-centered, learning process, and context?

A. Model

Conceptual Model

The conceptual model embodies the synthesis of several concepts about the meaning of learning; the principles of study and learning, schools of psychology, and their application to the inquiry-transactional approach; and explain the importance of learning.

Procedural Model

The procedural model is a series of stages in the process of developing an inquiry-transactional learning model.

The procedural model explains the meaning of learning design; various types of learning design models; and produces a learning design model, which is also a research and development model.

Physical Model

The physical model is in the form of a physical model of new learning materials, namely printed learning materials already integrated with student guides, interactive multimedia, and teacher guidelines.

B. Preliminary Research

The results of the initial research are information about the implementation of learning the history of cultural development in the World that has been going on so far and expectations for improvement from respondents including stakeholders. The information and data are about the use of textbooks in schools, learning objectives, media or learning tools used, teacher guidelines in teaching, learning methods or models used, and time used in the learning process.

C. Analysis

Formulation of Learning Objectives

The formulation of terminal learning objectives and specific learning objectives was created

through research and development after involving various stakeholders, namely teachers, and local government officials, including city and provincial education offices. Therefore, when listening to the thoughts of Dick, Carey, and Carey, who say that learning objectives can come from a list of goals, performance analysis, needs assessment, practical experience of student learning difficulties, analysis of people doing work, or from several other requirements for new learning. Therefore, the formulation of learning objectives as a result of this research includes those derived from a list of objectives, needs assessment, practical experience, and student learning difficulties.

Learning Analysis

The results of the analysis of learning on the material history of human development in the world are a series of learning processes that use seven stages of inquiry-transactional approach to achieving learning objectives. Such learning analysis, according to Borg, Gall, and Gall [10], includes learning analysis which is carried out to identify specific skills, procedures, and at the same time, learning tasks involved in achieving learning objectives.

Student and Context Analysis

Students studying historical material for the development of culture in this world are primarily virtuous. They will be better able to absorb cultural values when learning the history of cultural development in the world than if there are students who could be more virtuous. This characteristic allows teachers further to instill cultural values through an inquiry-transactional learning approach.

They are around 12-15 years old. At this age, students can already develop their reasoning by studying the history of cultural development in the world. Students over 12 years of age are sufficiently mature in thinking and can use their reason to be categorized as capable of studying historical development and cultural values. In the theory of cognitive development, according to Piaget, the characteristics of students at the age of 12 and over are said to be that "the ability to handle multifactor situations logically begins to emerge. Individuals can deduce various possibilities and systematically rule them out. Reasoning moves from a hypothetical situation to

a concrete one. In Piaget's opinion above, it can be understood that students over the age of 14 have enough maturity in thinking and can use their reasoning to be categorized as capable in studying the history of cultural development in the world.

Students have learned and know about the history of cultural development during the Roman period. They have also studied several subjects that support creative reasoning, such as mathematics and physics, to allow students to absorb abstract material such as history, which aims to instill cultural values through learning analysis of the history of panda development in China.

Students have various competencies, namely smart, moderate, and not smart. This characteristic indicates the need for learning that involves discussion, group work, and learning from students in other groups, as it is one of the main characteristics of the inquiry-transactional approach. Student ability These generally have been able to operate the computer and can access the internet. It resulted from the existence of practical subjects in computer laboratories. At the same time, students still use mobile phones and internet access at school. Based on these characteristics, this study used learning materials from various sources, such as textbooks, general books on the history of cultural development, the internet, newspapers, and magazines.

This condition is supported by Benjamin S. Bloom, who said that "there are good students and there are bad students, there are students faster, and there are students slower, and most students are very similar concerning learning abilities, learning levels, and motivation to be more learning- when provided with favorable learning conditions" [11]. It means that the learning process, which is formed in groups, doing work together, can merge the characteristics of students who are smart and not smart because, in the end, they will complement each other with their respective weaknesses and strengths to produce shared values.

Another factor, according to Jerrold E. Kemp [12] is the social factor. These social factors include age, maturity, attention span, unique talents, physical and emotional disabilities, student relationships, and socioeconomic situations. These students tend to get bored and sleepy quickly when participating in lessons with bor-

ing presentations. Through the learning process using the inquiry-transactional approach, they can follow the learning process that will not be haunted by drowsiness because they are actively moving, talking, reading, writing, walking, working, seeing, asking, answering, individually and in groups. Thus the learning material becomes more enjoyable.

Bruce [13] said that the learning model provides teachers with practical applications that become models that present classroom settings between the fictional world and the natural world. The inquiry-transactional learning model embodies the words of the experts above. Where in this model, the teacher makes the class like a market. Classes are arranged like a market in which there are merchandise, there are sellers, there are buyers, and there are buying and selling transactions. Students interact with each other since pre-learning (preparing data and group division in stage 1), and they work together in their respective group teams. Within their respective groups, they interact with each other. In that interaction, they write, see, hear, talk, watch, move, be creative, and have fun. The results of this interaction certainly will not make students feel bored or sleepy.

D. Learning Outcomes Assessment Instrument

Assessment of learning outcomes for the history of cultural development in the world material for students produced in this study differs from the assessment of learning outcomes for subjects in general. This research succeeded in formulating assessment components based on group collaborative learning processes and individual learning outcomes in the form of written works and cognitive test items. The value of the group collaborative learning process is only sometimes carried out in subjects in general, both CIVILITY and other topics. The assessment itself is very comprehensive, requires teacher involvement during the learning process, and displays creativity, togetherness, fun, motivation, graphics, and student enjoyment in groups and individually.

Based on the recapitulation of the assessment of learning outcomes for the field trial group above, it can be seen that the average value obtained by the field trial group as a whole is 85.02 out of the range of the highest score of 100. Therefore, the

value of 85.02 above belongs to the category of value A, which means that the group field trials have a very good average value

Table 1. Elements of Learning Process Assessment

No	Elements that rated	Weight	Skill	
			Individual	Group
1	Presence	5 %	×	×
2	Creativity in creating and displaying attributes	30 %	×	×
3	Liveliness they at the time of the transaction information	10 %	×	×
4	Choice Tests	15 %	×	×
5	Article	40 %	×	×
	Total	100%		

E. Inquiry-Based Learning

Inquiry-Based Learning Strategies - Transactional

The learning strategy for the history of cultural development in the world material for students produced in this study displays a systematic sequence of learning activities according to the syntax of the approach used, topics and sub-topics of learning material/content, transactional inquiry approaches, and allocation of study time for each stage of activity. The inquiry-transactional approach created in this study contains deductive, inductive thinking processes, demonstration activities, exhibitions, and information transactions [14].

Besides that, this approach also displays tools and media as well as learning facilities in the form of attributes of cultural development on five continents and five continent booths as creations of students and teachers. Students are involved in preparing and using all the tools and facilities used throughout the lesson. This activity involving students and teachers is a form of innovation

in learning in Indonesia. It is also following what is expected of the teacher, one of which states that knowledge is designed with the characteristics of developing a balance between spiritual and social attitudes, curiosity, creativity, cooperation with intellectual and psychomotor abilities.

Inquiry-Based Learning Materials - Transactional

Ready-to-use learning materials for the history of cultural development in the world for students are in the form of printed materials for students and teachers and videos. Learning materials refer to any pre-existing materials specifically developed to learn the history of the development of culture in the world. These materials can also include information students will use to spur their progress through learning, just as Banathy said that the material contained in learning materials must have a purpose. Without clear goals, those who choose learning materials do not know what books are relevant [7]. Learning materials used by students direct students to achieve learning objectives.

The materials in this study were revised at the end of each evaluation stage, namely after one-to-one expert evaluations, one-to-one student evaluations, small group evaluations, and field trial evaluations. So, four revisions were carried out in stages. The result is a new physical model of learning materials.

IV. CONCLUSION

From this research, it can be concluded the following things:

- The conceptual model embodies the synthesis of several concepts about the meaning of learning; the principles of study and learning, schools of psychology, and their application to the inquiry-transactional approach; and explain the importance of learning.[15]
- The procedural model is a series of stages in the process of developing an inquiry-transactional based learning model, using the R&D Cycle model from Borg and Gall consisting of 10 steps to developing world cultural history learning materials, namely Research and Preliminary Information Collecting. Planning, Developing

Preliminary Product, Preliminary Testing, Preliminary Product Revision, Main Testing, Operational Product Revision, Operational Testing, Final Product Revision, and Dissemination and Implementation.

- The physical model is a set of learning material models for learning world cultural history consisting of printed materials, interactive multimedia, teaching guides, and teaching aids consisting of historical symbols of cultural development on five continents.

V. FUTURE RESEARCH

The plan for further research is to implement and at all the school in Guangdong province.

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