Development of Islamic Education Learning Design in Independent Learning Era based on Dick and Carey in Senior High School

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ABSTRACT

This study aims to develop an Islamic Education (PAI) learning design in the Independent Learning era at SMA Bone Bolango Regency. The research method used is development (R&D) to produce PAI learning design products in the Independent Learning era. In developing the PAI learning design in the Independent Learning era, the Dick and Carey model was used, which has stages, namely: (1) determining general goals, 2) needs analysis, (3) student analysis, (4) formulating specific goals, (5) developing instruments, (6) developing strategies, (7) selecting content, materials, and media, (8) formative evaluation and revision (9) summative evaluation. A questionnaire was used as the main technique in data collection. Data analysis was performed using relative frequency analysis. The results showed the development of PAI learning designs in the Independent Learning era with the principles of being efficient, effective, and student-oriented through the stages, namely 1) determining general goals, 2) needs analysis, 3) student analysis, 4) formulating specific goals in the form of ABCD (Audience, Behavior, Condition, and Degree), 5) developing instruments in the form of pretest and posttest, 6) developing strategies that include a scientific approach, 21st-century learning characteristics, cooperative learning models, 7) selecting content, materials, and media through MS 365 application, 8) evaluation and revision 9) summative evaluation. The novelty of this research is the learning design that is compiled based on systems and web-based teaching materials using the MS 365 application. The impact of the results of this research is that teachers need to increase competence in designing system-based learning and innovation in using media or web-based teaching materials to implement freedom to learn now and in the future.

KEYWORDS

Design, learning, Islamic education, free learning, Dick and Carey model

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Introduction

Islamic education (PAI) is to form students’ morality and manner based on Islamic principles. Educators have developed learning designs using approaches through the Teachers Network Program (MGMP). The problem raised is teachers need to improve their ability to manage learning strategies. Students can comprehend theoretical subject matter from a cognitive aspect. Islamic education (PAI) aims to build the character of students according to Islamic teachings. Additionally, not only fulfilling student learning with science but educates students by paying attention to physical and mental education, feelings, and practices, as well as preparing students to become members of the community. Therefore, Islamic religious learning at school gives basic abilities and skills to improve knowledge, understanding, appreciation, and values of Islamic teachings in everyday life.

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The Ministry of Education and Culture issued a 2019 Circular on Freedom of Learning to achieve this goal. In the Freedom of Learning, Educators can develop learning designs that are oriented toward students. Through MGMP, teachers have established a learning design that is in line with the lessons that will be delivered to students; thus, learning objectives are achieved. The learning strategies used were the exemplary method, habituation, discussion, and lecture. In addition, media such as radio, visual media like pictures, and audio-visual media like television can be used as PAI learning resources based on instructional design.

Based on the findings of observations, there are various problems in achieving learning objectives. The most fundamental problem is that teachers lack creativity in designing and managing learning, resulting in ineffective and inefficient learning. Students become bored due to the passive learning process. Further, owing to the policy of overcoming the transmission of the covid 19 outbreak, the time required for learning is inconsistent and even reduced. Theoretically, the subject material can be understood by students from the cognitive aspect. Yet practically, students still have not achieved the learning objectives due to the teacher’s limited guidance. Subsequently, learning objectives are not fully completed by students.

To address the problems identified, the teacher’s capacity to control learning strategies must be improved. Teachers must be able to design effective learning for students both at home and at school. Teachers will be more efficient in making learning tools because they are more focused on the learning process. In addition, teachers are necessary to master the application of innovative learning methods. Thus, a lesson plan (RPP) was conducted based on instructional design as a learning development of the Dick and Carey (2003) model, containing 10 stages for designing a learning product and testing its effectiveness.

Senior High School in Bone Bolango Regency has implemented learning following the Minister of Education and Culture’s policy regarding the Independent Learning curriculum. Zoning-based New Student Admission (PPDB), Abolition of National Examination (UN), National Standard School Examination (USBN) replaced with USP (Education Unit Examination), and simplification of Lesson Plans (RPP).

Based on the study rationale, the researcher is interested in conducting this study, and this research is expected to obtain a product, namely a learning design based on the Dick and Carey model (2003) that is suitable for use in learning for high school students, particularly at the Senior High School in Bone Bolango Regency.

2. Literature Review

2.1 Islamic Education Learning Concept

2.1.1 Islamic Education Learning Concept

Next, there is a distinction between the terms of teaching and learning. In teaching, the subject orientation is the teacher who focuses on teaching and learning activities. Meanwhile, in learning, the focus is on the students. Sadirman (2010: 23) stated that learning is created and designed to develop, encourage and support student learning as a set of experiences. As in line with Kokom (2013:4), learning is a system or teaching process to help students achieve their goals more effectively and efficiently. Learning is a process of developing the student's potential and character as a result of the educational synergy that occurs in schools, homes, and communities. This process allows students to build their potential in terms of spiritual and social attitudes, knowledge, and skills that are important for life and society.

Based on the description above, learning is an external entity that is purposefully designed to support an individual’s internal learning process. Curriculum actualization requires teachers to create and build appropriate student activities.

According to Ahmad D. Marimba (1995:32), Islamic education is guidance or deliberate leadership of students’ physical and spiritual growth toward building student personality (insan kamil). In line with Ahmad Tafsir (1994:32), who defines Islamic education as "guidance given by someone". Furthermore, Al-Nahlawi (1979:20) provides a concept of Islamic education as a personal and community rule, allowing individuals and communities to embrace Islam logically and in conformity. In addition, Muhaimin (2002: 183) stated that PAI is an attempt to prepare students to believe, understand, and apply Islamic principles through guidance, teaching, or training activities.

In addition, Islamic Education is an endeavor to motivate students to study and continuously learn to change students behavior in cognitive, affective, and psychomotor aspects. Furthermore, learning Islamic education is the curriculum actualization through the teacher by planning student activities as internal individuals with the support of external factors.

2.1.2 Islamic Education Learning Material

Learning materials are a tool to achieve the objectives of Islamic Education. Therefore, the learning material selected must be based on the project plan, scope, level of difficulty, and organization. Zuhairini (2005) asserts that Islamic education learning materials are in the form of activities, experiences, knowledge, and systematic in order to accomplish the PAI’s goal. The subjects of PAI as a whole include; the Quran, hadith, faith, akidah, and fiqh/worship.
2.2 Learning Design
Sudjana (2001:92) claims that aiming to apply learning tools, a development model that is compatible with the educational system is required. Further, a model of learning design development called the Dick and Carey model is related to this (2003). The design process is depicted in the diagram below.

![Diagram](image)

Figure 1. Dick and Carey Model Design (2003)

2.3 The Steps for the Dick and Carey Design (2003) Model

2.3.1 Identifying General Learning Objectives
The purpose of teaching is to determine what students are capable of. Hence, learning objectives are critical in every instructional process or teaching and learning activity.

2.3.2 Conduct Learning Analysis
First, learning analysis will identify subordinate skills which are based on the sequence of physical movements. Thus, the overall analysis of the learning design purpose serves as a basic reference for the next design processes.

2.3.3 Identifying Initial Ability and Students' Characteristics
Identifying students' initial abilities and characteristics are essential to determine the individual qualities to be used as a reference in describing learning management strategies. Aspects revealed in this activity can be in the form of talent, learning motivation, learning style, thinking ability, interest, or initial ability.

2.3.4 Formulating Performance Objectives
The performance objectives consist of: (a) The objectives must describe what the students will do (b) State the goals and provide conditions (c) Describe the criteria used to assess the effectiveness of the students' actions.

2.3.5 Developing Benchmark Reference Test Items
Standard reference test described in detail for a specific purpose. The results of these measurement tests are useful for (a) Diagnosing and putting it into the curriculum, (b) Becoming a document of learning progress, and (c) Learning designers must develop benchmark reference test items.

2.3.6 Developing Learning Strategies
The learning strategy includes pre-learning activities, information presentation, practice and feedback, testing, and subsequent activities. Learning strategies based on theory, research findings, media, learning materials, and student characteristics. These principles are used to select interactive learning strategies.

2.3.7 Developing and Selecting Learning Materials
There are three patterns that can be utilized by the teacher to design learning materials. Those are as follows: (a) Teachers design individual learning materials which incorporate all stages of learning materials, except for the pre-test and post-test (b) Teachers
selects and changes the existing materials to fit the learning strategy (c) Teachers do not use materials but conveys all learning materials he has created.

2.3.8 Designing and Conducting Formative Evaluations
According to Dick and Carey (2003), formative assessment is divided into three phases: (1) individual phase or clinical phase. In this phase, the designer works with students individually to obtain data to improve learning materials. (2) small group phase, in which groups of eight to ten students are being tested to obtain the necessary data (3) field test phase. It can be followed by many students or just 30 people.

2.3.9 Revising Learning Materials
Revising learning materials needs to be done according to the data obtained from the formative evaluation. According to Dick and Carey (2003), there are two revisions that need to be considered, namely: (1) revision of the content or substance as a means to improve, to make it attractive and effective for learning purposes.

2.3.10 Designing and Implementing Summative Evaluation
Summative evaluation can be defined as a learning design in which the assessment decisions are based on effectiveness and efficiency in teaching and learning activities. In line with Uno (2016: 32), summative evaluation is directed at the success of achieving the goals, which is shown by the performance of students. If all the objectives have been achieved, the effectiveness of the implementation of learning activities in certain subjects is regarded as successful if all of the objectives have been met.

2.4 Independent Learning Era
2.4.1 Free Learning Concept
In 2019, the outcomes of student research in Indonesia ranked 74th out of 79 countries in the Program for International Student Assessment (PISA). The information illustrates that the quality and quality of education in Indonesia are in desperate need of improvement. The government, through the Ministry of Education and Culture of the Republic of Indonesia, swiftly responded by implementing new policies aimed at improving the quality and quantity of education in Indonesia. Curriculum by Faiz and Kurniawaty (2020: 155); also Prasetyo, Bashori, and Lailisna (2020: 142) stated that what was proclaimed by the government, especially the Minister of Education and culture, was Independent Learning.

Nadiem Anwar Makarim, as Minister of Education and Culture of the Republic of Indonesia in Sari (2019:40), making new policies is not without reason. The concept of Independent Learning emphasizes the provision of freedom in the field of education. According to Mualifah (2013: 102) also, Pendi (2020: 191) teacher serves as a learning facilitator for students. For this reason, the education sector needs to be designed in order to overcome various challenges and problems in the future, particularly to prepare a better generation in the current era of globalization. Daga’s opinion (2021: 1084) The role of teachers in the implementation of Independent Learning is designing programs, especially the use of learning strategies.

Mardiana and Umiarso (2020: 82) Nadiem Makarim in conducting the Freedom of Learning policy, there are four regulations which including; (1) National Examination (UN) policy, (2) National Standardized School Examination policy, (3) Simplification of Lessons Plan (RPP), and (4) the new student admission policy (PPDB).

Furthermore, among four policies issued by the Ministry of Education and Culture regarding Freedom of Learning, this study only focuses on one policy, namely the Simplification of RPP. The Minister of Education and Culture’s proposed RPP was then created and applied to Islamic education subjects at the senior high school level.

2.4.2 Lesson Plan (RPP) in the Era of Independent Learning
The Minister of Education and Culture makes a policy to simplify RPP by issuing circular letter No. 14 of 2019 concerning the simplification of lesson plans. Several items were stated in the Circular, as follows: (1) RPP was created using the principles of efficiency, effectiveness, and student-oriented. (2) Learning objectives, activities, and assessment are the main components of the thirteen RPP components regulated in the Regulation of the Minister of Education and Culture Number 22 of 2016 concerning the standard process for Primary and Secondary Education, while the other components are complementary. (3) Schools, groups of teachers from comparable subjects and schools, KKG/MGMP, and individual teachers are free to choose, create, use, and develop lesson plans independently for the success of students. (4) RPP that was created can still be used and adjusted to the provisions referred to in numbers (1), (2), and (3).

2.4.3 Basic Simplification of RPP
The basic consideration for simplifying the lesson plans is taking care of the administration of learning, which is part of the learning process. Houtman’s viewpoint (2020: 39) is that teachers and schools are trapped in procedures and goals which make education administration the primary activity in order to evade bureaucratic provisions, accreditation, grades, and exams. Thus, teachers and
schools make education administration a goal and priority of educational activities. The basic simplification of RPP will be further explained in the following paragraphs.

First is the RPP Simplification Principle. According to the Minister of Education and Culture’s circular letter number 14 of 2019 concerning the simplification of the RPP, there are three main principles in the preparation of the RPP, including efficiency, which means that the RPP is written correctly; effective, meaning that lesson plans are written to achieve learning objectives, and student-oriented, which means that lesson plans are written with the readiness, attractiveness, and learning necessity of student.

The second is the simplified form of RPP. The Lesson Plan (RPP) can only be made on one page, and the main requirements are based on the concepts of effectiveness, efficiency, and student-oriented. In addition, there is no standard for writing lesson plans. Teachers are free to create, choose, develop, and use lesson plans in accordance with the principles previously mentioned.

The third is the Components of Simplified RPP. Simplifying the RPP in the Minister of Education and Culture circular letter number 14 of 2019 concerning the simplification of lesson plans, there are three main components, previously there were thirteen components based on the Minister of Education and Culture Regulation Number 22 of 2016, which became learning objectives, steps for learning activities, and learning assessment.

Further, after synthesizing the above theories, Islamic education learning design in the era of Independent Learning is a lesson designed based on an instructional design which is in the form of RPP about the efforts of teachers to teach, guide, and train, as well as the role of families in supporting students in studying Islamic education.

3. Methodology

This study employs research and development (R & D) methods. According to Sugiyono (2016: 297), the research method used to produce learning design products for Islamic education in the Independent Learning era is based on the Dick and Carey (2003) model at SMA Bone Bolango Regency. It applied a qualitative method and was conducted in SMA State Senior High School State in Bone Bolango Regency. The study was modified in eight research steps in order to create a learning plan for PAI subjects based on the Dick and Carey model.

![Figure 2. Research Procedure Modified Results of the Dick and Carey Model (2003)](image-url)
3.1 Design Validation
The researcher employs an expert assessment rubric to validate the PAI learning design, which will examine the feasibility of PAI learning designs in the Independent Learning era based on the principles of being effective, efficient, and student-oriented. This validation is calculated descriptively through relative frequency analysis with the formula: \( p = \frac{f}{n} \times 100 \), in which the results are interpreted using the criteria listed in the table below.

<table>
<thead>
<tr>
<th>Price Calculation</th>
<th>Category</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.01 – 0.20</td>
<td>Poor</td>
<td>Invalid</td>
</tr>
<tr>
<td>0.21 – 0.40</td>
<td>Fair</td>
<td>Not valid</td>
</tr>
<tr>
<td>0.41 – 0.60</td>
<td>Adequate</td>
<td>Currently</td>
</tr>
<tr>
<td>0.61 – 0.80</td>
<td>Good</td>
<td>Valid</td>
</tr>
<tr>
<td>0.81 – 0.99</td>
<td>Very Good</td>
<td>Accurate</td>
</tr>
<tr>
<td>1</td>
<td>Excellent</td>
<td>Perfect</td>
</tr>
</tbody>
</table>

3.2 Design Revision
Product revisions are carried out after receiving input from experts on the instruments used. The revision experts consist of 1 revision expert on PAI learning design, 1 revision expert on linguistics, and 1 revision expert on educational technology.

3.3 Product Trial
Product trials are intended to collect data that can be used as a basis for determining the level of effectiveness, efficiency, and attractiveness of the finished product. The sections include; 1) Trial Design (the product trial was intended to obtain a PAI learning design based on the Dick and Carey (2003) model); 2) Trial Subject (there are 15 students at SMA State Senior High School in Bone Bolango Regency as a test subject in a field trial); 3) Data Type (the data that has been collected is divided into two parts: data from the first analysis, in the form of data from expert reviews consisting of Education, Language and PAI technology experts and second, the findings of field trials.

3.4 Data Collection Instrument
The researcher used the following instruments:

3.4.1 Questionnaire
This questionnaire is used as a consideration for the development of Islamic education learning design in the era of Independent Learning at SMA Bone Bolango Regency with the following grid.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning Design</td>
<td>PAI Learning in the Era of Free Learning</td>
</tr>
<tr>
<td>Characteristics of students in Senior High Schools in Bone Bolango Regency</td>
<td></td>
</tr>
<tr>
<td>The Implementation of PAI Learning in Senior High Schools in Bone Bolango Regency</td>
<td></td>
</tr>
<tr>
<td>Learning difficulties in the era of Independent Learning</td>
<td></td>
</tr>
</tbody>
</table>

3.4.2 Test Questions
The test instrument was employed in limited field trials that were completed through tests. The test includes pre-test and post-test to determine children’s learning outcomes before and after implementing the learning design. The test preparation is arranged according to the following grid.

<table>
<thead>
<tr>
<th>No</th>
<th>Basic competencies</th>
<th>Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Analyzing the provisions of dress according to Islamic law.</td>
<td>• Understanding the material about dressing in Islamic law.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Observing Islamic dress models through pictures, video shows, or other media.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Identifying the purpose of dressing according to Islamic law.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Identify the benefits of dressing according to Islamic law.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Identify the legal basis (Qur’an) regarding dressing according to Islamic law.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Analyzing the dress code according to Islamic law.</td>
</tr>
</tbody>
</table>
3.5 Data Analysis Techniques
Technique Analysis of the data in this study, test data through pre-test and post-test items before and after the PAI learning design in the Independent Learning era was applied. Next, the results are analyzed using quantitative analysis.

3.6 Product Revision
After completing the trial, it can be determined how effective and reliable the instrument is when used in class, and further improvements can be made using peer input.

3.7 Evaluation / Model Testing
Research and development evaluation in this study includes formative evaluation 1 and formative evaluation 2. In formative evaluation I, the revisions were done by PAI experts, educational technology professionals, and linguists with at least Doctoral degree level education and academic certifications in respective subjects. Expert review data are analyzed to decide on product revision recommendations. Meanwhile, in formative evaluation II, limited trials were conducted with the purpose of determining the efficacy of employing the prototypes developed in actual classroom conditions. On 15 students in class X, field experiments were conducted at the class level.

4. Results
The result of this research and development is the learning design of Islamic education in the era of Independent Learning at SMA State Senior High School in Bone Bolango Regency. According to Dick and Carey (2003), product development consists of ten stages: (1) identifying general teaching objectives, (2) conducting teaching analysis, (3) identifying student input behavior and characteristics, (4) formulating performance goals, (5) developing points benchmark reference tests (6) developing learning strategies (7) developing and selecting teaching materials (8) designing and carrying out formative evaluations (9) revising learning designs (10) designing and carrying out summative evaluations.

The following are the findings of the study:

4.1 Determination of General Learning Objectives
This research was conducted on tenth-grade students of SMA State Senior High School in Bone Bolango Regency. The general goal of PAI learning is based on aspects of sharia material. Thus, the overall goal of this learning is that students can live, practice, understand, apply, and analyze factual, conceptual, procedural, and metacognitive knowledge based on their curiosity about science, technology, art, culture, and humanities with insight into humanity, nationality, state, and civilization related to the causes of phenomena and events, and apply knowledge procedural in a specific field of study according to their talents and interests to solve problems and process, reason, and present in the concrete and abstract realms related to the development of independently, act effectively and creatively, and be able to use methods according to scientific rules.

4.2 Learning Analysis Requirements
Closed ended were distributed to 11 teachers in class X SMA Bone Bolango Regency by submitting basic statements regarding the necessity to employ PAI learning designs in the Era of Independent Learning in class X SMA Bone Bolango Regency in order to assess the demand for PAI learning designs in the Independent Learning era in Senior High School, particularly in class X. The distribution’s results were then examined using relative frequency or presentation, which was done using the formula:

\[ P = \frac{\sum \text{score}}{\text{Ideal Score}} \times 100\% \]

The ideal score is 55 (11 respondents X 5 highest score). Overall, the results of the analysis are shown in the following table.
Table 4. Analysis Findings of Learning Design Requirements in the Independent Learning Era on Islamic education Teachers

<table>
<thead>
<tr>
<th>No</th>
<th>Statements</th>
<th>Percentage</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Teachers need PAI learning designs that are arranged in accordance with the Independent Learning era</td>
<td>100%</td>
<td>Highly required</td>
</tr>
<tr>
<td>2</td>
<td>PAI learning design is adapted to the learner’s learning environment</td>
<td>100%</td>
<td>Highly required</td>
</tr>
<tr>
<td>3</td>
<td>PAI learning design is adapted to the learning style of students</td>
<td>88.8%</td>
<td>Agree</td>
</tr>
<tr>
<td>4</td>
<td>PAI learning design is linked to the Independent Learning curriculum for students</td>
<td>100%</td>
<td>Highly Agree</td>
</tr>
<tr>
<td>5</td>
<td>In the PAI learning process, the teacher designs lessons for independent learners</td>
<td>100%</td>
<td>Highly Agree</td>
</tr>
<tr>
<td>6</td>
<td>PAI learning designs that are arranged as far as possible can develop the learning process of 21st-century skills in students</td>
<td>100%</td>
<td>Highly Agree</td>
</tr>
<tr>
<td>7</td>
<td>PAI learning designs that are prepared as much as possible make parents/guardians involved in providing support for students learning at home</td>
<td>100%</td>
<td>Highly Agree</td>
</tr>
<tr>
<td>8</td>
<td>PAI learning designs that are arranged as much as possible can make it easier for teachers in the learning process for students</td>
<td>100%</td>
<td>Highly Agree</td>
</tr>
</tbody>
</table>

(Source: Analysis results, 2022)

The table above shows that the 11 respondents expressed a strong need for PAI learning design in the Independent Learning era for Class X Senior High School in Bone Bolango Regency. This can be seen in the required results from the teacher’s responses to the eight questions, all of which were replied with necessary, strongly agree, or very high.

4.3 Identifying Behavior and Student Characteristics

Student analysis is a study of a student’s characteristics, which includes the ability of background knowledge and the level of cognitive development. The results of this research will be utilized to compile learning materials as a frame of reference.

According to Piaget’s theory of learning (Slavin, 1994), child development is divided into several stages those are sensorimotor (zero - 2 years), pre-operational (2 - 7 years), concrete operational (7 - 11 years), and formal operational (11 years) to the top.

Considering that this study develops a learning design for class X students, the researcher analyzes the characteristics of high school students in general based on Piaget’s theory. According to Piaget’s theory, high school students’ cognitive development (aged 15-18 years) falls under the category of formal operational stages, which include the ability to think abstractly and logically, as well as analyze, draw conclusions, interpret, and develop hypotheses.

4.4 Formulating Specific Purposes

At the step of formulating specific goals, things to be concerned with are basic competencies in the analysis of PAI learning needs and analyzing the students’ characteristics, notably the provisions for dressing according to Islamic law. Thus, in the first meeting: using the cooperative method, students can analyze by describing the rules for dressing well according to Islamic law. Hence, students have a better grasp of the rules. Second, by utilizing the cooperative technique, students are able to develop skills in communicating and presenting the benefits of Islamic law-based methods for associating through technology and are accustomed to dressing in accordance with Islamic law.

4.5 Instrument Development

An assessment rubric was used to examine the quality of the learning design utilized in Islamic education (PAI) learning in class X SMA during the Independent Learning era. The types and purposes of instruments are presented in the following table:

Table 5. Instruments Types and Purposes

<table>
<thead>
<tr>
<th>No</th>
<th>Instrument Types</th>
<th>Instrument Purposes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Assessment rubric</td>
<td>To determine the quality of the learning design assessment of content aspects (efficient, effective, and learner-oriented principles) by PAI learning design experts, aspects of appearance and presentation by educational technology experts, and language aspects by linguists.</td>
</tr>
<tr>
<td>2</td>
<td>Multiple choice questions</td>
<td>To determine the level of effectiveness in using the learning design, 10 pre-test and 10 post-test questions were made.</td>
</tr>
</tbody>
</table>
4.6 Learning Strategies Development
At the stage of developing this strategy in terms of sharia material on the basic competencies of dressing according to Islamic law. PAI learning design in the Independent Learning activities has a component of a scientific approach and is integrated with the character of 21st-century learning, which includes creative/innovative, critical thinking, communication, and teamwork. The learning method used in the study is cooperative learning.

4.7 Developing and Selecting Teaching Materials
Regarding choosing learning materials, the researcher chose only 1 Basic Competence (KD), namely the Rules for Dressing according to Islamic Shari’a, for the reason the material seemed simple while, in fact, is vice versa, particularly in the daily lives of students. Henceforth, it is necessary to create IT-based learning materials using MS 365 in accordance with 21st-century learning, specifically, to train students to be digitally literate. KD learning materials for dress requirements according to Islamic law in this study can be accessed via the link [https://bit.ly/KDBUSANAMUSLIM10](https://bit.ly/KDBUSANAMUSLIM10).

4.8 Design and Conduct Formative Evaluations
Based on the development of learning designs that have been explained in the steps of Dick and Carey, the design of PAI learning in the Independent Learning era in the aspect of sharia material is KD Rules for Dressing according to Islamic Shari’a which is explained as follows.

The design of PAI learning in the Independent Learning era necessitates meticulous preparation before learning activities are implemented. The preparations include: 1) Educational Instruments 2) Forming Study Groups 3) Determining Initial Scores 4) Seating Arrangements 5) Group Work. The PAI learning steps in the Independent Learning era are based on cooperative steps, which consist of eight phases. The phases are as follows:

a) Setting goals and motivating students
b) Presenting/delivering information
c) Organizing students in study groups
d) Guiding group work and study
e) Evaluating
f) Awarding
g) Predict and provide solutions
h) Provide opportunities for advanced practice and application.

As for the formative evaluation, the researcher conducted a formative in two ways, including assessing the quality of the learning design product and conducting field trials of a limited group. The researcher produced assessment criteria for product validation when the learning design product was completed. The researcher chose 3 experts consisting of lecturers. Following the expert’s confirmation, a short field trial with students was conducted to ensure that the learning design developed is appealing to students and simple to implement.

From the results of the trial to the group, the student responded well to the presence of an easy-to-understand learning design. However, the results of the corrections from a number of experts become input for the improvement of the developed learning design products.

4.9 Revision
At this stage, the researcher made improvements to the learning design product based on feedback and validation from experts. The responses and the results of the revisions made are shown in the following table:

<table>
<thead>
<tr>
<th>Experts</th>
<th>Comments</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAI</td>
<td>Improve spiritual and social attitude GPA</td>
<td>Already revised</td>
</tr>
<tr>
<td>Linguist</td>
<td>Improve the use of terms and use of ideas in paragraphs</td>
<td>Already revised</td>
</tr>
<tr>
<td>Linguist</td>
<td>Edited to ensure grammar, spelling, and punctuation according to the rules of scientific writing</td>
<td>Already revised</td>
</tr>
</tbody>
</table>

4.10 Summative Evaluation
The researcher conducted post-test testing and data processing on the pre-test and post-test data to determine the effectiveness of using student learning designs in learning Islamic education during the Independent Learning era. Statistical descriptive analysis of relative frequency or percentage is used to process data from pre-test and post-test outcomes.
Based on the opinions of PAI experts and educational technology, the quality of the researcher's learning design product is rated as excellent. PAI experts gave a score of 0.94 (94%) which means the learning design is categorized as outstanding. While the Education technology expert gave a score of 0.88 (88%). Clearly, these results can be seen in the following table:

<table>
<thead>
<tr>
<th>No</th>
<th>Experts</th>
<th>Score</th>
<th>Percentage</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>PAI Expert</td>
<td>0.94</td>
<td>94%</td>
<td>Very Good</td>
</tr>
<tr>
<td>2</td>
<td>Educational technologist</td>
<td>0.88</td>
<td>88%</td>
<td>Very Good</td>
</tr>
<tr>
<td>3</td>
<td>Linguist</td>
<td>0.75</td>
<td>75%</td>
<td>Good</td>
</tr>
<tr>
<td></td>
<td>Average</td>
<td>0.86</td>
<td>86%</td>
<td>Very Good</td>
</tr>
</tbody>
</table>

(Source: Analysis results, 2022)

The table above shows that the overall results of expert assessment and validation show that the Islamic education learning design prepared by the researcher as an experiment in this study has been categorized as excellent or accurate. Thus, this learning design is suitable for use in the learning process of 10th-grade high school students. Meanwhile, from the aspects that are employed as assessment indicators, such as efficiency, effectiveness, student-oriented, appearance, and presentation, expert assessments reveal efficient principles and effective receive the highest scores, while the principle of student-oriented is the lowest category. These results are as shown in the following table:

<table>
<thead>
<tr>
<th>No</th>
<th>Assessed Principles/Aspects</th>
<th>Score</th>
<th>Percentage</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Efficient</td>
<td>1</td>
<td>100%</td>
<td>Excellent</td>
</tr>
<tr>
<td>2</td>
<td>Effective</td>
<td>1</td>
<td>100%</td>
<td>Excellent</td>
</tr>
<tr>
<td>3</td>
<td>Oriented to students</td>
<td>0.83</td>
<td>83%</td>
<td>Very Good</td>
</tr>
<tr>
<td>4</td>
<td>Appearance</td>
<td>0.90</td>
<td>90%</td>
<td>Very Good</td>
</tr>
<tr>
<td>5</td>
<td>Presentation</td>
<td>0.87</td>
<td>87%</td>
<td>Very Good</td>
</tr>
</tbody>
</table>

(Source: Analysis results, 2022)

In the table above, the ideas or aspects evaluated have been categorized as perfect and excellent. Hence, it is feasible to be used and tested on a limited group in high school. Furthermore, the quality of the prepared learning designs was evaluated through field trials with a small group of 15 high school students of Bone Bulango Regency to assess the learning design’s quality, followed by a pretest and posttest to determine what changes occurred before and after the learning design was implemented. On the condition that the post-test score is higher than the pre-test, it can be stated that the PAI learning design in the Era of Independent Learning has good quality. Thus, the results of the pretest and posttest assessments in the limited trial of PAI learning designs in the Era of Independent Learning are shown in the following figure.
Development of Islamic Education Learning Design In Independent Learning Era based on Dick and Carey in Senior High School

On the whole, the description of testing through pre-test and post-test can be concluded that the use of PAI learning designs in the Era of Independent Learning is effective in improving children’s learning outcomes, as proved from the results of field tests conducted at Grade X SMA State Senior High School 1 Kabila.

5. Discussion
Teachers use learning design as a strategy to facilitate students’ learning more effectively and efficiently. However, the learning design developed in this research is on Islamic Education subjects in the Independent Learning era. Ministry of Education and Culture of the Republic of Indonesia’s Circular No. 14 of 2019 confirms that learning principles in the Independent Learning Era are efficient, effective, and student-oriented. For this reason, the development of learning designs in the Independent Learning era in this study is a learning design that is presented in the aspect of shari’a material, Basic Competence (KD) Rules for Dressing according to Islamic Shari’a.

In initial observations, researchers in the field discovered that the learning design was not yet effectively used in learning by paying attention to the elements of learning design that required to be in the learning process as well as learning strategies in the Independent Learning era. Meanwhile, the design of learning systems can provide motivation and better learning outcomes for students and help teachers develop learning strategies with a scientific approach and 21st-century learning characteristics for high school students.

For this reason, this study wants to develop a product of Islamic education learning design in the Independent Learning era in aspects that are scientifically tested for effectiveness using the Dick and Carey system design (2003). Next, the development of PAI learning designs in the Independent Learning era was developed through 8 stages of testing. The outcomes of the modification (Uno, 2016:23) are the results of analysis requirements, formulating specific goals, developing instruments, developing strategies, developing teaching materials/media, formative evaluation, revision, and summative evaluation.

At the initial stage, the researcher developed a learning design for Islamic education in the Era of Independent Learning by analyzing needs, determining specific goals, developing instruments, and developing strategies and materials. A needs analysis through a closed ended distributed to 11 PAI teachers in Bone Bolango Regency High Schools showed a high need for PAI learning design with a scientific approach. The characteristics of 21st-century learning for parents/guardians in learning students at home reached 98.5% of 8 statement items that were asked about the need for PAI learning designs in the Independent Learning era. The next stage is to develop specific objectives of strategies and content of materials and learning media. At this stage, the learning design was developed based on the material aspect of the KD Dressing Rules according to Islamic Shari’a which was set for the benefit of this research. These Basic Competencies are described based on Core Competencies that address 4 elements of student development: spiritual, social, intellectual, and skillful.

Islamic education learning designs in the Independent Learning era are made in the form of learning strategies that are supported by guidelines that make it easier for teachers and students to explore and work on the PAI learning process. Each learning design that contains an order or task is equipped with an explanation of the process for students and teachers. This expected that teachers could directly plan to provide instruction, mentoring, and training for the activities and accomplishments of students using PAI learning designs in the Era of Independent Learning.

Furthermore, the researchers used 2 approaches to assess the quality of the learning design, namely expert assessment and field testing. Therefore, in developing PAI learning designs in the Independent Learning era at SMA Bone Bolango Regency, there are a number of main principles, which include 1) efficient, 2) effective, and 3) student-oriented.

For expert testing, a rubric is used, which is given to 3 selected experts from PAI expert lecturers, educational technology experts, and linguists. The results of these findings are used as the basis for determining the feasibility and improvement of content other than learning developed by expert judgment, as shown in table 9. The results of the validation research show that from 3 experts, an average score of 0.86 was obtained, and the calculation price was 86, which means that the PAI learning design in the era of Independent Learning developed is categorized as excellent or accurate. This is shown in the table below.

<p>| Table 9 Average Results of Expert Assessment Validation of PAI Learning Designs in the Era of Independent Learning |
|--------------------------------------------------|--------|-----------|----------|</p>
<table>
<thead>
<tr>
<th>No</th>
<th>Assessed Principles</th>
<th>Score</th>
<th>Calculation Price</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Content</td>
<td>0.94</td>
<td>94</td>
<td>Very Good</td>
</tr>
<tr>
<td>2</td>
<td>Appearance</td>
<td>0.90</td>
<td>90</td>
<td>Very Good</td>
</tr>
<tr>
<td>3</td>
<td>Presentation</td>
<td>0.87</td>
<td>87</td>
<td>Very Good</td>
</tr>
<tr>
<td>4</td>
<td>Language</td>
<td>0.75</td>
<td>75</td>
<td>Good</td>
</tr>
<tr>
<td></td>
<td>Average</td>
<td>0.86</td>
<td>86</td>
<td>Very Good</td>
</tr>
</tbody>
</table>

(Source: Analysis results, 2022)
After expert assessment and some improvements as suggested, the learning design in the Independent Learning era was tested on 15 students at a 10th-grade high school to assess the effectiveness of the learning design. Before and after the implementation of learning designs in the Independent Learning era, the effectiveness evaluation was employed in PAI learning, and the test findings obtained that the students’ average pretest score was 7.5 or 75 percent, while the posttest average of students was 9.3 or 93 percent. As a result, the value of students’ learning outcomes has increased by 18%. All in all, it can be concluded that the PAI learning design in the Independent Learning era was effective in improving student learning outcomes.

6. Conclusion
The present study aims to develop an Islamic Education (PAI) learning design in the Independent Learning era at SMA Bone Bolango Regency. The results show that the development of PAI learning designs in the Independent Learning era with efficient, effective, and student-oriented principles is through several stages those are 1) determining general goals, 2) analysis requirements, 3) student analysis, 4) formulating specific goals in the form of ABCD (Audience, Behavior, Condition, and Degree), 5) developing instruments in the form of pre-test and post-test, 6) creating strategies that include a scientific approach, 21st-century learning characteristics, cooperative learning models, 7) Use MS 365 applications to select content, materials, and media, 8) evaluation and revision 9) summative evaluation. Expert validation revealed that PAI experts scored 0.94 (94%) while educational technology experts scored 0.88 (88%). Therefore, it can be concluded that the PAI learning design in the Independent Learning era based on Dick and Carey was categorized as excellent or accurate. This is also evidenced by field trials, which show that using PAI learning designs in the Independent Learning era can result in an average score of 9.3 (93) for student learning outcomes, a difference of 18% over using previous PAI learning designs, which is 7, 5. (75). As this study only limited its focus to senior high school levels, then further research should be conducted in the different levels of schools.

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References

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