DEVELOPMENT OF BLENDED LEARNING IN FLIPPED LEARNING-BASED IN ISLAMIC EDUCATION LEARNING DURING THE COVID-19 PANDEMIC

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ABSTRACT

This study aims to develop a learning model for Islamic Education based on Flipped Learning. The method used in this research is the method of research and development (Research & Development). The R&D method is a research method used to produce products and test their effectiveness. Islamic Education based on Flipped Learning model used by the researcher adapted the ADDIE development model. Based on the needs analysis stage, student analysis, curriculum analysis, material analysis, analytical analysis and learning method. There is a need for the development of Islamic Education learning media with a local wisdom approach. Media development based on the validity test carried out by media experts and material experts obtained the average validation result by media experts, namely 87.133%. In comparison, the impact of the validity test by material experts was 86.75%. The results of field trials on users are excellent. The average score of students was 86.5%, and educators were 86.5%.

Keywords: Islamic Education Learning, Flipped Learning, Pandemic Covid-10
A. INTRODUCTION

The covid-19 pandemic significantly impacts various sectors such as the economy, society, and education. Learning activities are no longer face-to-face during covid-19 pandemic education learning online in the education sector. Online learning is undoubtedly a challenge for the educator to use technology media in the learning process. On another side using the media and technology in online learning accelerates the industrial revolution 4.0. The covid-19 pandemic significantly impacts many learning process changes, where the demands of industrial revolution 4.0 are implemented through online learning processes. Pandemic covid-19 requires all educators to be technology literate by utilizing Information Communication and Technology (ICT) as a learning medium. During the pandemic, educators have to use various learning media to enhance the online learning process.

One of the learning models that can be applied in universities during the covid-19 pandemic is flipped learning, a reverse class learning model. So far, the learning process has been carried out with traditional classes carried out independently by students. Bergmann & Sam said that the flipped classroom method as a form of flipped learning is an innovative pedagogical approach focused on the student center of studies. It is said that reverse class reverses the system traditionally carried out by the teacher as the center in the learning process carried out. Furthermore, according to Jacqueline E. McLaughlin, the flipped classroom method has many benefits. Students will have positive opinions, be open to new knowledge,

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2 Jonathan Bergmann and Aaron Sams, Flip Your Classroom: Reach Every Student in Every Class Every Day (ISTE and ASCD, 2012).
be more active, independent, creative, and critical in addressing specific case problems⁴.

Higher education requires students’ competence in using technology, where technology is a tool that can use to create meaningful experiences in the learning process. Islamic Education is a source of values and guidelines in developing education program implementation to deliver students and strengthen their personality as fully Indonesian human beings⁵. However, until now, the critical position of Islamic Religious Education (PAI) at general higher education as not been realized as expected. Based on several previous research results, the result of initial observation made by researchers, where PAI courses are considered as learning supplement, this is proven with the impact of the questionnaire the average respondent took PAI courses as a fulfillment of credit obligations, while for religious studies they choose to follow halaqah or mentoring conducted by various students’ organizations.

Meanwhile, characteristics of Generation Z, which is the age of students today, being a teacher in the current era is required to have PCK (pedagogical Content Knowledge), a concept that Shulman first introduced as a reference for knowledge and skills primary a teacher must possess that. However, apart from PCK, one additional aspect is needed, namely technological knowledge. Slightly changed the PCK concept into TPACK (Technology Pedagogical Content Knowledge)⁶. This lack of literature makes them seek instant religious knowledge, so it is not surprising that some research results on spiritual understanding and attitudes intolerance which students show. So, it is necessary to integrate the learning process by utilizing ICT in learning Islamic Religious Education. The internet's religious information needs to be filtered with

Islamic moderation content, known as *Islam rahmatan lil alamin*, and the locality of Indonesian culture through local wisdom values or traditions rooted in the local community that is in line with Islamic teachings.

Based on the background, this study examines how a blended learning model for Islamic education is based on flipped learning.

**B. RESEARCH METHODOLOGY**

The research method used is the Research and Development method or R&D (*Research and Development*). R&D research is a research method that aims to produce and test the effectiveness of a product\(^7\). The participants in this study were Islamic education students who used blended learning. Collection data using questionnaires and direct interviews carried out data collection to obtain in-depth data and expert assessments. The analysis data using the R&D technique. In R&D research, there are several research models, but in this study, the ADDIE model (*Analysis, Design, Development, Implementation, and Evaluation*) is used.

**Picture 1. ADDIE Development Desain**

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Development of Blended Learning in Flipped Learning-Based in Islamic Education Learning During The Covid-19 Pandemic
Flipped Learning as The Blended Learning Model

The use of reverse learning is known as the flipped classroom, so flipped learning is often the same as the flipped classroom. However, there is a term flipped learning more specific in the learning process carried out. The essence of learning flipped classroom is to change the practice of understanding with the outside classroom. In learning, flipped classroom students are given access to various learning media outside the school, then actively participate in the learning process. Thus, it can be interpreted that in this learning, students are directly involved in understanding the content and facilitating an in-depth understanding of the material. And the most important things are that students are given feedback on the material being studied, both independently and in groups.

Learning is a flipped classroom opportunity to train students to be active and independent in the learning process. Flipped classroom as a learning model can be integrated with technology to carry out learning outside the classroom in its application. The flipped classroom is formal learning (synchronous) with independent learning that is asynchronous.

The model flipped learning is a part of the learning flipped classroom as a pedagogical approach. Students can independently access learning material based on instructions from educators; then, the following learning process is carried out by collaborating or exchanging opinions on the materials being studied. In other words, flipped learning is a model of blended learning. The principle in flipped learning is that homework assignments (such as exercise, case studies, problem-solving, and the like) are better done in class. While listening to the lecturer’s explanation becomes a homework assignment in the form of a video.

The characteristics of flipped learning include four aspects that must be fulfilled by educators, as shown in the following chart:

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9 Wulandari, “Konsep Dasar Metode Flipped Classroom.”
The learning model is **flipped learning**, divided into three activities: before class starts when class starts, and after class ends. Before class begins, the students have learned the material that will be discussed. At this stage, learners' ability to be owned by remembering and understanding the material. Thus, by the time class begins, learners can apply (applying) and analyze (analyzing) material through a variety of interactive activities in the classroom, followed by evaluating (evaluating) and task-based specific projects as the activity after the class (creating)\(^1\).

The strategy **flipped learning** applies in the classroom with the following steps\(^2\): 1) Phase 0 (students study material independently) before face to face, the student study independently at home about the material for the next study meeting by watching learning videos, or other resources uses. 2) Phase 1 (face-to-face learning by remembering and understanding the material that has been learned) in classroom learning, students are divided into several heterogeneous groups to discuss the material studied. 3) Phase 2 (applying students' abilities in projects and other simulations in the

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\(^1\) Wulandari, “Konsep Dasar Metode Flipped Classroom.”

classroom) the role of educators during learning activities is to facilitate discussions with a method such as a method cooperative learning. In addition, the teacher will also prepare several questions from the material. 4) Phase 3 (evaluation as the end of subject matter) students can carry out a series of learning processes.

Need Analysis of Islamic Religious Education Learning Development in General Higher Education

The first stage of development is to conduct needs analyses, including analyses of student needs, curriculum analysis, and analysis of learning media so that it can be seen how the development of this learning media can be effective as PAI learning. This needs analysis serves as the basis for reference information used in the design or product developing design.

The result of the needs analysis in the first stage obtained the following information:
1. Islamic Religious Education (PAI) Analysis curriculum

Islamic Religious Education (PAI) at General Higher Education (PTU) as a curricular program is an integral part of the National Education System. To ensure its function and role in achieving national education goals, PAI is designed, developed, implemented, and evaluated in the embodiment of national education goals. Overall, it is the basis and framework for understanding the PAI course (MK) profile as a whole.

Constitutionally, PAI is an integral part of efforts to achieve systemic and sustainable national education goals. Students become human beings who are faithful, pious, characters and become good citizens. This is in line with Law Number 20 of 2003 concerning the National Education System Chapter II Article 3, which explicitly states that the purpose of national education is directed at the formation of four aspects, namely: religious aspects, moral aspects, intellectual aspects, and national aspects. All these aspects are realized to form a complete and complete (human being or insan kamil). Religious education plays a role in achieving all of the above elements, with a more significant portion on religiosity and morality.
Furthermore, Article 56 of Law Number 12 of 2012 concerning Higher Education is re-affirmed the obligation to have Religious Education courses as a psycho-pedagogical or andragogic whole entity in the diploma and undergraduate programs curriculum. Conceptually and paradigmatically, the ultimate goal or learning outcome of MK-PAI is the formation of the student's personality as a whole (kaffah) by making Islamic teachings the basis for thinking, acting, and behaving in scientific and professional development. A complete character can only be realized if every student is embedded in faith and holiness to Allah SWT. Seeing the importance of religious education being given in tertiary institutions, the position of MK-PAI in the higher education curriculum, along with other General Compulsory Courses (MKWU), animates the development of the higher education curriculum. Thus, MK-PAI is expected to produce faithful, pious graduates, have a noble character, and have local wisdom and skills in solving personal, social, and national problems.

2. Islamic Religious Education (PAI) Material Analysis

According to Decree No. 38/2002, Islamic Religious Education in Higher Education provides personality development for students to become intellectuals and spirituality. And have a noble character, think philosophically, behave rationally and dynamically, have broad views, participate in cooperation between religious communities in the context of developing and utilizing science and technology and art for the national interest. Meanwhile, according to Wahyuddin\(^\text{13}\) the specific objectives of Islamic religious education courses at public universities are: 1) Forming pious people, 2) Giving birth to religious scholars who are knowledgeable and not scientists in the field of religion, 3) Achieving faith and piety in students 4) Fostering fertility and form a positive attitude and discipline.

From some of the descriptions above, it can be said that the ultimate goal of Islamic religious education in higher education is to

\(^{13}\) Et.al, Wahyuddin, *Pendidikan Agama Islam Untuk Perguruan Tinggi* (Jakarta: Gramedia, 2009).
create a perfect human being (*insan kamil*), who has intelligence and spiritual intelligence to realize a better individual and social life.

3. Analysis of Learning Methods and Media

Lack of educators' innovation in utilizing ICT-based media makes material delivery too dull for students, which is dominantly delivered by the lecture method. While current students, as the dominant generation, make it easy to simplify the smartphone-based world picture, they can access various materials through hand trees. It is necessary to take advantage of digital-based learning media.

Methods and media in learning which was explicitly carried out on Islamic Education subjects during the pandemic, was that students could access various kinds of religious information through the services available on the Internet as a learning resource. They could easily access anything, including religious content and content. So, this is where the role of educators is to be able to control and direct students' views on moderate religion through the selection of information sources on the Internet or in other digital media.

Developing a blended learning model during a pandemic by providing hyper-content learning materials is very necessary. Meanwhile makes it easier for students to sort and choose information about Islamic Religious Education while at the same time directing students to moderate religious understanding by looking at the elements of Islamic education. Elements or values that exist from the surrounding culture.

4. Analysis of Student Needs

So far, the community considers PAI implementation at PTU not to be maximal and effective. This is caused by various factors:

a. The purpose of PAI learning still leads to knowledge, not practice.

b. The material developed at PTU tends to be repetitive and does not lead to metacognitive knowledge.

c. The learning method used tends to be classical, not dialogical, yet using a multi-perspective approach.

d. In several public universities, PAI lecturers have not met the competency standards as outlined in the National Higher Education Standards (SNPT).

e. The management of PAI lectures is not uniform between one PTU and another.
f. The facilities and infrastructure for PAI lectures at PTU are not adequate.

The documentation study shows that PAI learning needs innovation in terms of methods and media used and content that raises real contests in the participants’ daily lives. This is important to do where PAI courses are not compulsory and how PAI courses can equip students intolerant religious life. At this stage, Islamic spiritual learning needs to be integrated by elevating the values or wisdom of the local culture.

The lack of students' understanding of the values of local wisdom makes it easy for them to blame the traditions that exist in the archipelago by blaming the practices that are carried out contrary to Islamic law. The following is one of the frequently asked questions in PAI learning about religion and culture:

"In Indonesia, there is tahlilan. Even though this was not done by the Messenger of Allah. What the Prophet did not do was heresy; how to deal with that? and how to make people aware not to do that?" (SF)

The needs of students regarding PAI material based on local wisdom values are based on the results of the students' own needs analysis conducted at the beginning of each PAI lecture with the following data:

**Diagram 1. Result of Student Questioner**

<table>
<thead>
<tr>
<th>Pembelajaran PAI sebaiknya memanfaatkan adat dan tradisi lokal</th>
<th>164 responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ya</td>
<td>22.6%</td>
</tr>
<tr>
<td>Tidak</td>
<td>77.4%</td>
</tr>
</tbody>
</table>
Development Model PAI learning using online media such as digital textbooks with a local wisdom approach is necessary to counter intolerant thoughts. From the results of interviews with some students, it was revealed that PAI learning is still dominant with religious lectures. This is one of the factors that students are more interested in and choose to study religion through *halaqah* or to mentor outside of PAI lectures.

**Islamic Religious Education Learning Development Design at General Higher Education**

The results of the needs analysis are used as the basis for making learning designs. At the design stage, the researcher compiles learning materials displayed on the product to be developed. In addition, a learning scenario is made, which contains a framework and description of the activities that students will carry out on the developed learning media. This activity starts from formulating learning objectives to be achieved by students, making learning scenarios, making learning tools, compiling learning materials, and compiling learning outcomes evaluation tools.

1. **Product Title**
   
   The product produced from this development is "E-Book of Islamic Religious Education with an Approach to Local Wisdom Values".

2. **Product Specifications**
   
   a. Learning media developed according to educational needs in the digital era can be various learning media with hyperlink content. The book is equipped with KI-KD Indicators and Learning
Objectives. And also this book described test with multiple choice and a discussion to make it easier for students to know how far their understanding of the material has been studied.
b. The media is made by referring to the educational curriculum regarding the competencies that students must have where researchers design learning objectives based on KD 1.1
c. Learning media in the form of produced books contain various kinds of content designed hyperlinked. Based on the characteristics of students who are the millennial generation who prefer to access online sources.
d. The resulting learning media in the form of an E-book is made using a flipbook. The content contained in this PAI book contains videos, PPT, links to religious materials, and is equipped with summative test assignments made with a hyperlink model.

**Picture 3. Display of PAI Learning Media**

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**Development of Flipped Learning**

At the design stage, a prototype has been produced. Next, it enters the development stage which aims to realize the previous stages into a learning media product and will then be validated by experts. Media experts and material experts carried out validation. Aspects assessed by media experts are aspects of display design, accessibility aspects, and
implementation aspects. While the aspects assessed by material experts are aspects of the curriculum, aspects of material presentation, aspects of language use, and aspects of evaluation. The results of the expert's assessment will be the basis for improving or revising the media.

1. Aspects of the material developed

   Researchers designed the material topic in PAI learning referring to the latest rules made by the Ministry of Religion in 2020. The material developed refers to KI and KD. Development of materials made by integrating PAI materials with local wisdom values. Material development introduced a universal value of social justice, community welfare and the sustainability of community livelihood resources that underlies the pattern of relationships between citizens and with other communities. The idea of developing local wisdom-based education is based on the belief that every community has certain strategies and techniques that are developed to carry out life according to its context. Local wisdom-based education is education that teaches students to always be attached to the concrete situations they face.

   PAI learning with this local wisdom approach tells students those humans do not just live (to live), but also exist (to exist). Thus, they are motivated to try to overcome the all-limited situation. That is, they must be educated together to face the harsh reality that befell them as a problem that inevitably has to be faced, not reduced and avoided. Thus, they are able to think critically and creatively in responding to their socio-cultural conditions. This provides an overview of the concrete situations they face daily. The model of education based on local wisdom is an example of education that has high relevance for life development skills, based on empowering local skills and potential in each region.

2. Development The media

   Media developed in this research is the PAI E-book with a local wisdom approach. This E-book to choose is based on the accessibility of students and the development of ICT in learning. The media developed as PAI teaching materials are presented in this book with various kinds of material content regarding hyper content. The selection of Flipped Learning is based on PAI learning during this pandemic, it doesn't have to be online for one semester but how in some

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meetings between educators and students can hold asynchronous learning for

3. Validator's Assessment of Materials and Media Developed

Learning media validation by media experts is carried out to assess display design, accessibility, and implementation aspects. After being assessed by media experts, the data obtained from the assessment results were then analyzed to get the percentage of assessments by media experts.

<table>
<thead>
<tr>
<th>No</th>
<th>Rated Aspect</th>
<th>Score percentage (%)</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Display Design</td>
<td>85</td>
<td>very worthy</td>
</tr>
<tr>
<td>2</td>
<td>Accessibility</td>
<td>90</td>
<td>very worthy</td>
</tr>
<tr>
<td>3</td>
<td>Implementation</td>
<td>87</td>
<td>very worthy</td>
</tr>
<tr>
<td></td>
<td>Average</td>
<td>87.33</td>
<td>very worthy</td>
</tr>
</tbody>
</table>

Material experts perform validation to assess several aspects, namely aspects of the curriculum, aspects of material presentation, aspects of language use, and aspects of evaluation.

<table>
<thead>
<tr>
<th>No</th>
<th>Rated Aspect</th>
<th>Score percentage (%)</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Curriculum</td>
<td>90</td>
<td>very worthy</td>
</tr>
<tr>
<td>2</td>
<td>Material Object</td>
<td>87</td>
<td>very worthy</td>
</tr>
<tr>
<td>3</td>
<td>Language</td>
<td>85</td>
<td>very worthy</td>
</tr>
<tr>
<td>4</td>
<td>Evaluation</td>
<td>85</td>
<td>very worthy</td>
</tr>
<tr>
<td></td>
<td>Average</td>
<td>86.75</td>
<td>very worthy</td>
</tr>
</tbody>
</table>

**Implementation of Flipped Learning-Based PAI Learning**

From the data obtained based on the validator's assessment, the researchers then corrected the directions from the experts. In the next stage, improvements and suggestions from the validators were used as improvements for small-scale trials. These students took PAI lectures as reinforcement from this trial stage, students were given learning evaluations.
in the form of question sheets accessed link to google form. The steps for implementing learning media:

1. Student Trial E-book media used in PAI learning

   The implementation form used is PAI learning in certain materials using media that have been made as learning references and students with flipped learning-based learning access and use e-books that have been designed. The use of this E-book can be accessed in Schoology, Google Classroom and What’s app class groups. The learning process is held in session one by following all the learning instruments. And in the next session, students elaborated on what they learned in virtual synchronicity.

   **Tabel.3 The Result Percentage Student Trial**

<table>
<thead>
<tr>
<th>No</th>
<th>Rated Aspect</th>
<th>Score percentage (%)</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Curriculum</td>
<td>88</td>
<td>Very Good</td>
</tr>
<tr>
<td>2</td>
<td>Material Object</td>
<td>87</td>
<td>Very Good</td>
</tr>
<tr>
<td>3</td>
<td>Language</td>
<td>85.5</td>
<td>Very Good</td>
</tr>
<tr>
<td>4</td>
<td>Evaluation</td>
<td>80</td>
<td>Good</td>
</tr>
<tr>
<td>5</td>
<td>Effectivity</td>
<td>87</td>
<td>Very Good</td>
</tr>
<tr>
<td></td>
<td>Average</td>
<td>86.5</td>
<td>Very Good</td>
</tr>
</tbody>
</table>

2. Data analysis of the educator field trial

   The assessment conducted by PAI lecturers to see the extent of the feasibility of the resulting product by containing the following aspects: display design aspects, accessibility aspects, access to supporting media, evaluation aspects, and implementation aspects.

   **Tabel. 4 The Result Percentage Educator Field Trial**

<table>
<thead>
<tr>
<th>No</th>
<th>Rated Aspect</th>
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<th>Criteria</th>
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<tr>
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<td>2</td>
<td>Material Object</td>
<td>87</td>
<td>Very Good</td>
</tr>
<tr>
<td>3</td>
<td>Language</td>
<td>88</td>
<td>Very Good</td>
</tr>
<tr>
<td>4</td>
<td>Evaluation</td>
<td>85</td>
<td>Very Good</td>
</tr>
<tr>
<td>5</td>
<td>Effectivity</td>
<td>83</td>
<td>Very Good</td>
</tr>
<tr>
<td></td>
<td>Average</td>
<td>86.6</td>
<td>Very Good</td>
</tr>
</tbody>
</table>
From the results of field trials, the informants revealed that: "The media developed is very helpful for students in understanding PAI, especially how learning materials are contextualized with real examples in life. Religion and culture as a unity that cannot be separated.

Evaluation of Islamic Religious Education Learning Development Based on Flipped Learning

The final stage of developing learning media is the evaluation stage. Overall evaluation data were obtained from interviews with both students and educators themselves. Evaluation is strengthened by test results in the form of formative evaluation and summative evaluation. Formative evaluation has been carried out at each stage by giving questionnaires to research subjects, namely media experts, material experts, lecturers, and students. Questionnaires were given after the subjects used the developed product for further analysis using a scale. The assessment results and comments from the subjects would be used as guidelines for revising the developed application. While the summative evaluation is carried out after the activity ends, namely by providing an assessment of the media used to see the quality and feasibility of the product as a whole by calculating the N-Gain value. According to Shah, if students can answer more than half of the test correctly, it can be said that students are successful in learning. So in this case, students can be said to be successful in learning from the developed learning media if they get a score of more than 50 from the overall evaluation.

From the initial evaluation to the final evaluation, there were several inputs from experts, subject lecturers, and students. The media expert gave some input for the application and stated that the application was feasible to use, although this feasibility with various suggestions and revisions for improvement. One of the things that have not been fully improved in the resulting product is the entire media that is displayed in the form of videos from the results of the researchers' work. alone. The PAI lecturers' input on

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the e-books produced is overall very good, although there is a need for a more comprehensive approach to local wisdom values.

Flipped Learning with this Flip book is very helpful for students in understanding PAI learning during a pandemic. The linkage of media with the use of ICT makes it easier for students to study religion. From several indicators carried out through interviews, at least hyper content with links in online media helps students sort and select information, especially related to religion. Moderate-based online media can be used as student references in accessing religious and religious knowledge.

C. CONCLUSION

Based on the needs analysis stage, student analysis, curriculum analysis, material analysis, and media analysis and learning methods, it was necessary to develop PAI learning media with a local wisdom approach. The media used needed to adapt to the needs of students, especially generation Z, Flipped Books are one option that can answer these needs, especially in the learning process during a pandemic. So far, PAI books contain only theoretical content, so it is necessary to have an implementable approach between religion and culture.

At the design stage, the resulting learning media is a flipbook with hyper content which includes videos, PPT, online media sources with links and examples of local wisdom in the archipelago. Which refers to studying PAI.

At the development stage, researchers focused on developing PAI teaching materials with local wisdom values. At this stage the researcher validates the media to media experts and material experts. The results show that the resulting product is very feasible using in PAI learning.

The researcher conducted a small-scale trial on PAI lectures using flipped learning with two lecture sessions in the implementation phase. From this implementation stage, it is known that the resulting product helps students understand contextual religious learning with a cultural approach. The results of the responses from users indicate that the product is very good to use.

At the evaluation stage, interviews were conducted to determine the extent to which the benefits and advantages and disadvantages of the resulting product were strengthened by formative evaluation and summative
evaluation. Formative evaluation is carried out at each stage by revising the media, while summative evaluation is carried out after all stages have been completed. Based on this evaluation, the resulting product can open students' insights about PAI learning. From N-Gain on the aspect of religious moderation, it can be seen that their religious understanding is moderate.
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