



DEVELOPMENT OF ISLAMIC RELIGIOUS EDUCATION TEACHING MATERIALS BASED ON ECOLITERACY AT SMP NEGERI 3 STABAT

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DOI : <http://dx.doi.org/10.30829/tar.v31i2.4049>

ARTICLE INFO

Article History

Received: Sept 10, 2024

Revised: Nov 21, 2024

Accepted: Dec 30, 2024

Keywords

Ecoliteracy,
Education,
Islamic,

ABSTRACT

This research aims to find ecoliteracy-based PAI teaching materials, which are feasible, practical and effective for use in learning. The research was conducted at SMP Negeri 3 Stabat. This research method is a development research method with the Plomp model. The research instruments used were validation sheets, observation sheets and learning outcomes tests. The research findings show: (1) ecoliteracy-based PAI teaching materials were developed starting from needs analysis, design, testing and revision. In this case, the PAI teaching materials developed contain the concept of ecoliteracy, (2) ecoliteracy-based PAI teaching materials have been tested, evaluated and revised, in this case their suitability has been validated by learning design experts, material experts and educational practitioners with an average score of 3.30 eligible categories. Thus, the teaching material products developed are suitable for use in PAI learning, and (3) ecoliteracy-based PAI teaching materials have been implemented with a level of practicality with a score of 3.40 in the practical category and a level of effectiveness for improving student learning outcomes, with an N-Gain score 0.39 medium effectiveness category.

Introduction

The emergence of a societal paradigm regarding Islamic Religious Education (PAI) learning activities in schools is undoubtedly due to learning outcomes that are not yet aligned with everyday life. Furthermore, the teaching methods used tend to be monotonous and dominated by teachers lecturing, resulting in students being viewed as objects to be memorized and memorized without considering their needs and skills in everyday life. Therefore, Islamic Religious Education must be encouraged to implement learning innovations that relate not only to curriculum and management tools, but also to

the development of teaching materials.

However, researchers found a phenomenon at SMP Negeri 3 Stabat. Based on initial observations, the Islamic Religious Education (PAI) learning process still uses the old paradigm, where teachers impart knowledge to passive students. Teachers teach predominantly through lectures and expect students to sit, be quiet, listen, take notes, and memorize. Students are less active in learning activities. Students tend to be less interested in Islamic Religious Education (PAI) lessons because they are perceived as solely focused on memorization, with a lack of emphasis on reasoning, resulting in low student interest.

Considering the above facts, the main problem in Islamic Religious Education (PAI) learning is the use of teaching materials that do not incorporate ecoliteracy-based PAI teaching concepts. In addition to still using monotonous learning methods, teacher activity is more dominant than student activity. As a result, teachers often neglect the process of fostering values, attitudes, and behavior. Consequently, PAI is not considered a subject for developing students' rights and obligations, but rather a boring and tedious subject. Furthermore, PAI learning tends to be less meaningful because it focuses solely on assessment of outcomes rather than process.

Another phenomenon researchers found at SMP Negeri 3 Stabat is that PAI teachers focus on achieving learning material targets, oriented toward final exam scores. This relates to the formation of character, morals, attitudes, and behavior in students who only seek good grades without balancing it with improvements in character, morals, attitudes, and behavior. While students have learned PAI subjects that should improve attitudes, behavior, and morals, the opposite is true, with attitudes, behavior, and morals tending to decline. Furthermore, regarding ecoliteracy, Qomariyah (2022) explains that ecoliteracy can be defined as understanding, comprehending, and practicing ecological values that are useful in addressing environmental problems. Initially, ecoliteracy was better known as ecological awareness. By using the term "ecoliteracy," it means not only increasing awareness of environmental care but also understanding how ecological principles work in a sustainable community life.

Research Method

This research method is a developmental research method. The developmental research model used is Plomp. The Plomp (1997) development model was chosen because of its clear and systematic procedures and is in line with the development process undertaken by the researcher. The Plomp model development phase consists of a preliminary investigation phase, a design phase, a realization/construction phase, a test, evaluation, and revision phase, and implementation phases. Model validation analysis involves an assessment of the feasibility of teaching materials by experts and educational practitioners by determining the average total value of the feasibility assessment aspects. The practicality analysis technique for teaching materials design is assessed by the consistency of the results of two measurements obtained from the expert and educational practitioner assessments. The effectiveness analysis technique for teaching materials design is conducted using the normalized gain (N-Gain) test.

Result

The assessment of learning design experts, material experts and education practitioners regarding ecoliteracy-based Islamic Religious Education teaching materials can be seen below:

Table 1 Summary of Expert and Practitioner Suitability Assessments of Teaching Materials

No	Expert	Score	Category
1	Ahli Materi	3,45	Worthy
2	Ahli Desain Pembelajaran	3,40	Worthy
3	Praktisi Pendidikan	3,43	Worthy
	Mean	3,43	Worthy

Referring to Table 1, the assessment of the feasibility of ecoliteracy-based Islamic Religious Education teaching materials by education experts and practitioners yielded an average score of 3.43, categorized as feasible.

The practicality assessment of the learning practicality of the ecoliteracy-based Islamic Religious Education teaching materials was 3.40, categorized as practical. Referring to the practicality test for ecoliteracy-based Islamic Religious Education, the alternative hypothesis is accepted if the calculated average score is greater than 3.00. Since the cumulative average score for the feasibility assessment of the teaching materials is $3.30 > 3.00$, it can be concluded that the ecoliteracy-based Islamic Religious Education teaching materials are practical to use.

The level of effectiveness of teaching materials for Islamic Religious Education subjects based on ecoliteracy was carried out through normalized gain testing (N-Gain), in this case the calculated value of N-Gain was 0.39 in the medium category, so that it can be concluded that the level of effectiveness of teaching materials for Islamic Religious Education subjects based on ecoliteracy to improve student learning outcomes is medium.

Discussion

Ecoliteracy-based Islamic Religious Education teaching materials are designed in printed form, consisting of a series of written texts. Therefore, they must be written in a language style and readability that is easy to understand and engaging for students, as students have different individual characteristics. Seels and Richey (1994) emphasized that student characteristics, including their background experiences, influence the effectiveness of their learning process.

Furthermore, it can be explained that providing stimuli in the form of examples, and selecting the type, shape, and size of fonts for the graphic components of presentations in textbooks are also related to efforts to create learning conditions, namely providing learning stimuli. In other words, the design of printed teaching materials is expected to foster student learning motivation and achieve effective learning outcomes.

Furthermore, the developed teaching materials take into account 3 (three) aspects related to the development of teaching materials, namely relevance, consistency, and adequacy. The following is an explanation: (1) relevance or suitability, in this case the teaching materials contained in the developed student textbooks are relevant to the achievement of the desired objectives or competencies, (2) consistency or consistency, namely the teaching materials contained in the student textbooks cover all competencies that must be mastered by students according to the curriculum, and (3) adequacy or sufficiency, in this case the material taught should be sufficient to help students master the basic competencies taught, in this case the material should not be too little and not too much.

The use of the developed ecoliteracy-based Islamic Religious Education teaching materials provides a unique color for students. In this case, based on the results of interviews with students, it was obtained that the developed ecoliteracy-based Islamic Religious Education teaching materials involve cognitive, affective, and psychomotor aspects. This is reflected and implemented in students' self-actualization as users of the teaching materials development products, in mastering the material and completing individual assignments, working in groups, and building communication during group assignments. These activities impact students personally, building independence and confidence in mastering the material.

Furthermore, students expressed the opinion that discussion and group learning activities should be included in the teaching materials. Group discussion learning activities are important because group learning offers various advantages in learning activities. Slavin (2005) explained that cooperative learning aims to create pro-academic norms among students, and these pro-academic norms have a significant influence on student learning outcomes.

Related to group learning, teachers can design learning activities for 4-5 students to discuss a topic and then present it. Through discussion activities and seeking relevant reference sources, the process fosters direct, intense, and active individual and group involvement. Through this process, students are expected to develop independent learning, control their own learning pace, and take responsibility for their assigned tasks.

The results of the practicality assessment of ecoliteracy-based Islamic Religious Education teaching materials showed a cumulative score of 3.40, categorizing them as practical. Based on the explanation in the previous chapter, the criterion for practicality is a calculated average score of 3.00 or greater, categorizing them as practical. Therefore, given the practicality assessment of ecoliteracy-based Islamic Religious Education learning, which was 3.40 or greater than 3.00, it is clear that ecoliteracy-based Islamic Religious Education learning is practical for use.

The data above demonstrates that the assessment of the practicality of ecoliteracy-based Islamic Religious Education learning demonstrates teachers' consistent ability to implement Islamic Religious Education. If teachers' consistency continues to improve, the practicality of the teaching materials will also increase. Consequently, the objectives and principles of ecoliteracy-based Islamic Religious Education learning will also improve student learning outcomes.

In fact, the implementation of ecoliteracy-based Islamic Religious Education learning can improve, in addition to teacher mastery of the learning application, supported by the availability of pre-prepared teaching materials. At the beginning of the lesson, teachers encountered obstacles in actively involving students in intergroup discussions, providing opportunities for students to respond to the work of the presenting group during presentations, and providing opportunities for students to discuss and ask questions with the teacher.

The availability of ecoliteracy-based Islamic Religious Education teaching materials assists teachers and students in participating in Islamic Religious Education learning because they provide learning resources. This aligns with Suparman's (2012) assertion that the use of teaching materials has several advantages, including the following: (1) cost-effective learning because it can be accessed by a large number of students; (2) students can progress at their own pace; (3) teaching materials can be reviewed and revised at any time and in stages, section by section, to increase their

effectiveness; and (4) students receive regular feedback on their learning process because the feedback process can be integrated into the teaching materials.

The findings of this study support the findings of previous studies conducted: (1) research by Mufidah et al. (2020), (2) research by Suwartini et al. (2022), (3) research by Annisa (2020), Muawaroh (2019), and research by al-Anwari (2014). The findings indicate that the use of teacher-designed teaching materials can improve student learning outcomes.

The results of testing the influence of learning by comparing learning outcomes before and after the use of ecoliteracy-based Islamic Religious Education learning, in this case, obtained a calculated t value of 4.08 while the t table value at $\alpha = 0.05$ is 1.99. Because the calculated t value $>$ t table value, H_0 is rejected and H_a is accepted, namely there is a difference in student learning outcomes before and after the application of ecoliteracy-based Islamic Religious Education teaching materials.

In this case, the learning outcomes of students taught using ecoliteracy-based Islamic Religious Education (ISE) were higher after the use of the teaching materials compared to those before the use of the teaching materials. Therefore, it can be concluded that ecoliteracy-based Islamic Religious Education I (ISE) can improve student learning outcomes.

Furthermore, the effectiveness of ecoliteracy-based Islamic Religious Education (ISE) learning is demonstrated through the results of the N-Gain test, which obtained an N-Gain coefficient of 0.39, categorized as moderate. The criteria for acceptance of the effectiveness of ecoliteracy-based ISE learning are if the N-Gain is $0.30 \leq \text{N-Gain} \leq 0.70$, categorized as moderate. Therefore, the effectiveness of ecoliteracy-based ISE learning in improving student learning outcomes is moderate.

Achieving the effectiveness of ecoliteracy-based ISE learning depends on various factors, including the teacher's ability to plan, manage, and assess learning, as well as the availability of learning materials. Further investigation revealed that the impact is related to teachers' mastery of the theories underlying ecoliteracy-based Islamic Religious Education and their performance in implementing learning. Therefore, the role of teachers as facilitators, motivators, moderators, consultants, and designers is crucial.

Regarding the teacher's role in managing learning, Joyce and Weil (2003) explain that to create these social and support systems, the role or task of educators is to provide an intellectual environment and encourage interaction between students and other students, as well as between students and other learning resources.

In addition, the availability of developed products, which are planned or designed printed learning resources used in Islamic Religious Education (ISE) teaching, is a determining factor in achieving the effectiveness of ecoliteracy-based ISE learning. Regarding these planned (by design) learning resources, AECT (1986) explains that learning resources can be grouped into two categories: (1) planned (by design) learning resources, which are all learning resources specifically developed as components of an instructional system to provide directed and formal learning facilities; and (2) utilized (by utilization) learning resources, which are resources not specifically designed for learning purposes but can be found, applied, and used for learning purposes.

Furthermore, learning by design, through the implementation of ecoliteracy-based ISE learning, stimulates the construction of knowledge in students. This is emphasized by Piaget, as quoted by Dahar (2016), who states that learning activities should consider the arrangement of new knowledge presented to students in the form of problems that can trigger cognitive conflict. This allows students to seek a balance between what they

perceive and know and what they perceive as new phenomena through the processes of assimilation and accommodation. Vygotsky explains that students' knowledge is built and constructed collaboratively, and they are given ample opportunities to learn from a variety of learning resources. Furthermore, students are encouraged to engage in collaborative learning by engaging a community of learners (Santrock, 2008). To achieve the above, one of the efforts that can be made is to design teaching materials that meet the quality aspects, namely fulfilling the following criteria: (1) the teaching materials must attract the interest of the students who use them, (2) the teaching materials must be able to motivate the students who use them, (3) the teaching materials must contain illustrations that attract the hearts of the students who use them, (4) the teaching materials should take into account linguistic aspects so that they are appropriate to the abilities of the students who use them, (5) the content of the teaching materials must be closely related to other lessons, it is even better if they can support them in a planned way so that everything forms a complete and integrated whole, (6) the teaching materials must be able to stimulate, stimulate the personal activities of the students who use them, (7) the teaching materials must consciously and firmly avoid vague and unusual concepts so that they do not have time to confuse the students, (8) the teaching materials must have a clear and firm point of view so that in the end to be the point of view of its loyal users, (9) teaching materials must be able to provide reinforcement, emphasis on student values, and (10) teaching materials must be able to respect the personal differences of the students who use them.

Conclusion

The conclusions that can be drawn in accordance with the research findings are as follows: (1) Islamic Religious Education teaching materials based on ecoliteracy were developed starting from needs analysis, design, testing and revision. In this case, the Islamic Religious Education teaching materials developed contain the concept of ecoliteracy as a development of learning needs analysis, and (2) the Islamic Religious Education teaching materials based on ecoliteracy have been tested, evaluated and revised in this case their feasibility has been validated by learning design experts, material experts and education practitioners with an average score of 3.43 in the feasible category. Thus, the developed teaching material product is suitable for use in Islamic Religious Education learning, and (3) the Islamic Religious Education teaching materials based on ecoliteracy have been implemented with a practicality level with a score of 3.40 in the practical category and an effectiveness level to improve student learning outcomes, with an N-Gain score of 0.39 in the moderate effectiveness category.

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