

DEVELOPMENT OF DISCOVERY LEARNING-BASED STUDENT WORKSHEETS (LKPD) TO IMPROVE STUDENTS' ANALYTICAL SKILLS IN AL-QUR'AN HADITH SUBJECT ON THE TOPIC OF INFAK AND SADAQAH IN CLASS VIII-A AT MTsN 1 RANTAUPRAPAT

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ARTICLE HISTORY

Received : 20-05-2026

Revised : 07-06-2026

Accepted : 15-07-2026

KEYWORDS

Discovery learning,
Worksheets,
Analytical Skills, Infak
and Sadaqah, Qur'an
and Hadith.

ABSTRACT

This study aims to develop Discovery learning-based Student Worksheets (LKPD) on the topic of "Infak and Sadaqah" in the Al-Qur'an and Hadith course for eighth-grade students in Class VIII-A at MTsN 1 Rantauprapat to enhance their analytical skills. The study employed the Research and Development (R&D) method using the 4D model (Define, Design, Develop, Disseminate) developed by Thiagarajan et al. (1974). Data were collected through expert validation sheets, teacher and student response questionnaires, and Higher-Order Thinking Skills (HOTS)-based test instruments consisting of essay questions administered as pretests and posttests. The results indicate that the developed worksheets achieved an average validity percentage of 93.12% (Highly Valid), an average practicality percentage of 96.41% (Highly Practical), and an N-Gain Score of 0.82 (High/Effective). These findings demonstrate that the Discovery learning-based worksheets are valid, practical, and effective in enhancing students' analytical skills at the C4 level of the Revised Bloom's Taxonomy, encompassing the sub-skills of differentiating, organizing, and attributing. The systematic integration of the six stages of Discovery learning into the worksheet activities guides students to develop their analytical skills in studying the material on infak and sadaqah.

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INTRODUCTION

Islamic Religious Education serves not only as a means of transferring religious knowledge but also as a process of character development and the cultivation of students' thinking skills. Within this framework, the Al-Qur'an Hadith subject plays a strategic role in guiding students to comprehend Islamic teachings comprehensively—not

merely through the ability to read and memorize, but also through the development of Higher-Order Thinking Skills (HOTS), particularly analytical skills (Ikhsan & Rafi, 2025).

According to Anderson & Krathwohl (2001), analytical skills constitute a C4-level cognitive ability involving the decomposition of information, the identification of relationships between components, and the discovery of meaning or patterns contained within. This ability also aligns with the demands of the *Merdeka* Curriculum, which emphasizes student-centered learning and the strengthening of critical and reflective thinking skills (Purnama, 2025).

However, conditions at MTsN 1 Rantauprapat indicate that students' analytical skills have not yet developed optimally. Based on initial observations and interviews with the Al-Qur'an Hadith teacher of Class VIII-A, it was found that the majority of students still experience difficulty analyzing material in depth. Questions requiring analytical ability have not been consistently posed, thus depriving students of sufficient opportunities to practice higher-order thinking skills on a sustained basis. Regarding teaching materials, although various media have been utilized, their use has remained limited to the delivery of content and has not directed students to independently discover concepts. The teacher also stated that *Discovery learning*-based worksheets have never been used in Al-Qur'an Hadith instruction at that school.

These conditions were further corroborated by interviews with Class VIII-A students, who acknowledged difficulty in understanding the content of Qur'anic verses and hadith. The topic of *infak* and *sadaqah* in particular was considered challenging because it requires students not only to understand definitions but also to analyze supporting evidence, differentiate related concepts, and connect them to everyday life. The lack of teaching materials capable of facilitating active learning meant that students had to study the material independently outside class hours without structured guidance. These findings indicate that the low level of students' analytical skills stems from the unavailability of teaching materials specifically designed to train C4-level cognitive skills, as the existing worksheets were still dominated by activities at the remembering and understanding levels rather than analyzing.

The topic of *Infak* and *Sadaqah* itself has great potential for developing analytical skills. Its scope—which encompasses the analysis of Qur'anic verses and hadith, the differentiation between the concepts of *infak* and *sadaqah*, the wisdom underlying their practice, and their social impact—demands a learning approach that encourages students to observe, identify problems, connect various concepts, and draw conclusions independently. The approach considered most relevant to achieving this is *Discovery learning*. According to Bruner (1961), this model emphasizes the process of concept discovery through exploration and problem-solving. Through the stages of *stimulation*, *problem statement*, *data collection*, *data processing*, *verification*, and *generalization*, students are actively encouraged to construct their own knowledge. These stages directly involve activities aligned with the indicators of analytical skills at the C4 level of Bloom's Taxonomy (Habibah, 2025).

Several prior studies have provided empirical foundations supporting this approach. Kartini et al. (2025) demonstrated that *Discovery learning*-based worksheets for IPAS (Science and Social Studies) learning at the elementary school level are capable of creating an active learning environment and producing valid and practical products. Ratna & Munfaridah (2024) showed that integrating *Discovery learning* into chemistry worksheets effectively trains students' critical thinking skills. However, neither study addressed the domain of religious-text-based learning such as Al-Qur'an Hadith, specifically targeted analytical skills as the primary cognitive goal, or was implemented in the context of a Madrasah Tsanawiyah (Islamic junior secondary school). This gap constitutes the *research gap* and simultaneously the basis for the novelty of this research.

The novelty (*novelty*) of this research lies in the development of *Discovery learning*-based worksheets specifically designed to improve students' analytical skills in the Al-Qur'an Hadith subject on the topic of *Infak* and *Sadaqah* at the Madrasah Tsanawiyah level, integrating all *Discovery learning* syntaxes into learning activities so that students are trained to analyze supporting evidence, compare concepts, connect material to real-life phenomena, and independently draw conclusions from their findings.

Based on the above background, this research aims to develop *Discovery learning*-based worksheets on the topic of *Infak* and *Sadaqah* for Class VIII-A students at MTsN 1 Rantauprapat that are valid according to expert assessment, practical for use in the learning process, and effective in measurably improving students' analytical skills.

This research is expected to benefit teachers as an alternative innovative teaching material, students as a means of providing a more active and meaningful learning experience, MTsN 1 Rantauprapat as a concrete contribution to improving learning quality, and the academic community as a reference for developing Islamic religious education teaching materials based on innovative learning models at the Madrasah Tsanawiyah level.

Theoretical Framework

Development of Student Worksheets (LKPD)

Student Worksheets (LKPD) constitute one of the important components of instructional materials. Depdiknas (2008) defines LKPD as a device containing tasks that students must complete, equipped with instructions, steps, and methods for completing tasks on specific material. In line with this, Trianto (2009) defines LKPD as a guide for students in developing cognitive and all learning aspects, realized in the form of a guide for investigative activities or problem-solving in accordance with indicators of learning outcome achievement. Prastowo (2016) extends this definition by stating that LKPD is printed teaching material in the form of sheets of paper containing subject matter, summaries, and instructions for carrying out learning tasks that refer to the basic competencies that students must achieve.

From the various definitions above, it can be understood that LKPD is not merely a collection of practice questions, but rather a structured learning device designed to facilitate the active and independent achievement of student competencies. In practice, LKPD functions as a tool to assist teachers in elaborating material and designing practical tasks aimed at maximizing student understanding and learning capacity (Nurjihan & Bunawan, 2025). Accordingly, LKPD plays a strategic role as a bridge between learning material and student learning activities, simultaneously serving as an instrument that promotes independence and active engagement in the learning process (Lestari et al., 2026).

Discovery Learning Model

Discovery learning is a learning model grounded in cognitive and constructivist approaches. Jerome Bruner (1961), as the primary figure who developed this model, viewed humans as fundamentally information processors, thinkers, and creators. Based on this view, Bruner (1961) defined Discovery learning as a process in which students understand meaning, concepts, and relationships between concepts through an intuitive process until they are ultimately able to formulate conclusions independently in accordance with their cognitive development.

This model fundamentally shifts the learning orientation from teacher-centered toward student-centered learning, so that students learn actively through activities of discovering, investigating, and constructing their own knowledge (Gultom & Pane, 2026). The relevance of this model in the formal education system in Indonesia is also affirmed by Ndoa (2024), who states that the learning process can run effectively when teachers apply models that are appropriate to students' learning needs, and Discovery learning is one of the alternatives capable of addressing those needs.

In its implementation, Discovery learning proceeds through six systematic and sequential stages: (1) stimulation (provision of stimuli), (2) problem statement (problem identification), (3) data collection (data gathering), (4) data processing (data processing), (5) verification (verification), and (6) generalization (drawing of conclusions) (Sekarsari & Wicaksono, 2023). Each stage directly involves higher-order thinking activities, such as identifying information, connecting various concepts, comparing data, verifying the truth of information, and drawing conclusions based on findings obtained (Utami et al., 2025). These activities are aligned with the indicators of analytical skills at the C4 level of Bloom's Taxonomy, making Discovery learning highly relevant for developing students' higher-order thinking skills (Ningsih & Sastrawati, 2026).

The effectiveness of this model has been demonstrated by numerous studies. Hardianti et al. (2025) concluded that the implementation of Discovery learning is capable of enhancing students' analytical and critical thinking skills, particularly in identifying issues, analyzing values, and formulating solutions to problems, thereby making students more active, reflective, and confident in expressing opinions. Hidayati et al. (2024) also stated that Discovery learning has a significant effect on improving students' Higher-Order Thinking Skills (HOTS). Based on these theoretical and empirical foundations, Discovery learning is an appropriate and strategic learning model for application in the

development of worksheets for the Al-Qur'an Hadith subject, particularly in efforts to improve students' analytical skills on the topic of Infak and Sadaqah.

Analytical Skills

Analytical skills are one of the higher-order thinking skills that constitute a primary demand in 21st-century learning. Anderson & Krathwohl (2001) established in the Revised Bloom's Taxonomy six hierarchical levels of cognitive processes, namely remembering (C1), understanding (C2), applying (C3), analyzing (C4), evaluating (C5), and creating (C6). The ability to analyze, located at the fourth level, is defined as the ability to decompose a unified piece of information into smaller parts, determine the relationships between those parts, and discover the meaning or patterns contained therein (Qiftiyah & Fatonah, 2025). Anderson & Krathwohl (2001) delineate analytical skills into three main sub-skills: differentiating, organizing, and attributing. Thus, analytical skills require students not merely to understand information at a surface level, but to examine, decompose, and interpret it in a thorough and systematic manner.

The development of analytical skills in the learning process is something that cannot be overlooked, including in the context of Islamic Religious Education (Suseno & Ritonga, 2025). Analytical skills as part of HOTS have become the primary target of the transformation of assessment and instructional design based on the Revised Bloom's Taxonomy, simultaneously serving as the orientation for creating meaningful and high-quality learning experiences (Listiani & Rachmawati, 2022). In the specific context of Islamic Religious Education, Azizah (2025) explains that learning can be designed in a graduated manner in accordance with the development of students' abilities, from low-level cognitive skills to the achievement of analytical skills at the C4 level. Based on the foregoing, this research specifically focuses on improving students' analytical skills through the development of Discovery learning-based worksheets as an effort to realize Al-Qur'an Hadith learning oriented toward higher-order thinking skills.

The Topic of Infak and Sadaqah

Al-Qur'an Hadith learning aims to form students who are capable of understanding, internalizing, and practicing Islamic teachings comprehensively in daily life (Syafuddin & Sholikha, 2024). Within this framework, the topic of *Infak* and *Sadaqah* holds a position that is both strategically important and cognitively challenging. Students are required not only to know the definitions and supporting evidence, but also to differentiate the concepts of *infak* and *sadaqah*, analyze the wisdom contained therein, and connect them to social reality in a critical and reflective manner. An incomplete understanding of this material may give rise to a formalistic attitude in worship without comprehending the spirit of social solidarity that truly constitutes the core of these teachings (Fauzen & Najib, 2025).

The analytical dimension of the topic of infak and sadaqah is clearly reflected in the content of QS. Al-Baqarah verse 261:

مَثَلُ الَّذِينَ يُنْفِقُونَ أَمْوَالَهُمْ فِي سَبِيلِ اللَّهِ كَمَثَلِ حَبَّةٍ أَتَتْ سَنَابِلَ

Translation: "The parable of those who spend their wealth in the way of Allah is like a grain of corn that sprouts seven ears..." (Kemenag, 2019)

Shihab (2002) explains that this verse does not merely contain an individual dimension of worship, but also bears significant social value in the effort to achieve communal well-being comprehensively. Through the parable of a farmer who plants a single grain until it produces seven hundred grains or more, this verse explicitly conveys that wealth spent in the way of Allah will not diminish but will grow and multiply with manifold reward. This understanding provides a firm conceptual foundation in the study of *infak* and *sadaqah*: that the act of giving *infak* is fundamentally not a financial loss, but rather a form of high-value and sustainable investment, both in the worldly and otherworldly dimensions. This dimension is reinforced by the words of the Prophet Muhammad (peace be upon him):

حَدَّثَنَا مُوسَى بْنُ إِسْمَاعِيلَ، حَدَّثَنَا وَهَيْبٌ، حَدَّثَنَا هِشَامٌ، عَنْ أَبِيهِ، عَنْ حَكِيمِ بْنِ جَرَامٍ - رَضِيَ اللَّهُ عَنْهُ - عَنِ النَّبِيِّ ﷺ قَالَ " الْيَدُ الْعُلْيَا خَيْرٌ مِنَ الْيَدِ السُّفْلَى، وَابْدَأْ بِمَنْ تَعُولُ، وَخَيْرُ الصَّدَقَةِ عَنْ ظَهْرِ غِنًى، وَمَنْ يَسْتَغْفِرْ يُعْفَ اللَّهُ، وَمَنْ يَسْتَعِنْ يُعْنِهِ اللَّهُ

Translation: Narrated by Musa ibn Ismail, narrated by Wuhayb, narrated by Hisham, from his father, from Hakim ibn Hizam (may Allah be pleased with him), from the Prophet (peace be upon him) who said: "The upper hand is better than the lower hand (i.e., the one who gives charity is better than the one who receives it). Begin with those who are your dependants. The best charity is that which is given from surplus wealth. Whoever refrains from asking, Allah will preserve his dignity; and whoever seeks to be self-sufficient, Allah will make him self-sufficient." (HR. Bukhari No. 1427).

Imam Nawawi explains that the expression 'the upper hand is better than the lower hand' is a form of *majaz* (figurative speech), meaning that the one who gives is more virtuous than the one who receives. According to him, giving in charity from one's wealth is recommended for a person who has no debt and no dependants who would be put in hardship if the wealth were given away. If these conditions are not met, then giving charity becomes *makruh* (discouraged). Furthermore, Imam Nawawi explains that the phrase '*man yasta'fif yu'iffahu Allah*' (whoever refrains from begging, Allah will grant him sufficiency) is a definitive promise (*qath'i*) from Allah. This means that anyone who strives to preserve their dignity by not begging from others, Allah will provide sufficiency and protect their honor in a real and tangible sense, not merely as a figure of speech (An-Nawawi, 2012).

This hadith also imparts important principles for Islamic social and economic life, namely the virtue of giving over asking, and a person's primary responsibility to fulfill the needs of those under their care. The Messenger of Allah (peace be upon him) explains that the giving hand is nobler than the receiving hand, demonstrating the importance of working, giving in charity, and preserving one's dignity. Additionally, this hadith emphasizes the importance of contentment (*qana'ah*) and distancing oneself from dependence upon others, for Allah will help and provide sufficiency for those who possess such an attitude (Afandi & Alif, 2025) in this research

METHOD

This research is a Research and Development (R&D) study aimed at producing a product in the form of *Discovery learning*-based Student Worksheets (LKPD) on the topic of *Infak* and *Sadaqah* for Class VIII-A students at MTsN 1 Rantauprapat. The development model used is the 4D model proposed by Thiagarajan et al. (1974), comprising four main stages: *Define*, *Design*, *Develop*, and *Disseminate*. This model was selected because of its systematic and structured workflow, making it highly suitable for developing instructional materials such as LKPD.

The first stage is *Define* (definition), which aims to identify existing needs and problems in the learning process before the product is designed. At this stage, the researcher conducted direct classroom observation in Class VIII-A at MTsN 1 Rantauprapat to observe the actual conditions of ongoing Al-Qur'an Hadith instruction, followed by interviews with the subject teacher to gather more in-depth information regarding obstacles encountered in the learning process. Additionally, the researcher distributed needs analysis questionnaires to the Al-Qur'an Hadith teacher and Class VIII-A students to identify more specifically their needs for more innovative teaching materials that promote analytical thinking skills. The results of all activities at this stage served as the primary foundation for designing the LKPD product to be developed.

The second stage is *Design* (design), which aims to create an initial prototype of the LKPD based on the needs analysis findings obtained in the previous stage. At this stage, the researcher designed the LKPD using the Canva application, resulting in a product with a more visually appealing, systematic, and student-friendly presentation. The LKPD design was developed by explicitly integrating the six stages of *Discovery learning* into each learning activity, from stimulation, problem identification, data collection, data processing, and verification, through to the drawing of conclusions. All components were designed with consideration for the developmental characteristics of Grade VIII students and their alignment with the basic competencies of the *Infak* and *Sadaqah* topic.

The third stage is *Develop* (development), which is the stage of realizing the product design into an actual LKPD, then testing its feasibility before field use. The completed LKPD was subsequently validated by two validators: a content expert and a media expert. Validation by the content expert was conducted to assess the accuracy of the content, the alignment of the material with basic competencies, and the precision of the integration of Al-Qur'an Hadith values in the LKPD. Validation by the media expert was conducted to assess the aspects of appearance, readability, presentation systematics, and the compatibility of the LKPD format with student characteristics. After the validation process, feedback and suggestions from the validators formed the basis for product revision to ensure the resulting LKPD was genuinely valid and fit for field testing with students.

The fourth stage is *Disseminate* (dissemination), which constitutes the final stage of the development process. At this stage, the LKPD that had been declared valid, practical, and effective was disseminated to the Al-Qur'an Hadith teacher and Class VIII-A students at MTsN 1 Rantauprapat as an alternative teaching material ready for use in the learning process. Dissemination was conducted on a limited scale in accordance with the scope of this research, and the findings were also published through a scientific article as a contribution to the development of Islamic Religious Education teaching materials at the Madrasah Tsanawiyah level.

This research was conducted at MTsN 1 Rantauprapat with 30 Class VIII-A students as research subjects. This class was selected based on initial observation results indicating that Class VIII-A exhibited the most significant analytical skills deficiencies compared to other classes.

The research instruments used consisted of several types tailored to the objectives of each stage. In the *define* stage, the instruments used were observation sheets, interview guides, and needs analysis questionnaires distributed to the Al-Qur'an Hadith teacher and Class VIII-A students. In the *develop* stage, the instruments used were content and media expert validation sheets to test the validity of the product, along with teacher and student response questionnaires to measure the practicality of the LKPD in the learning process. To measure the effectiveness of the LKPD, HOTS-based test instruments consisting of 5 essay questions validated by a test expert were used and administered as *pretest* and *posttest* to the students.

Data obtained from expert validation sheets, teacher response questionnaires, and student response questionnaires were analyzed using a Likert scale with four assessment criteria: highly appropriate, appropriate, less appropriate, and not appropriate, with a score range of 1 to 4 for each criterion. To calculate the validity and practicality levels of the product, Formula 1 was applied as follows:

$$\text{Percentage} = (\text{Score Obtained} / \text{Maximum Score}) \times 100\% \dots\dots\dots (\text{Formula 1})$$

Table 1. LKPD Validity Criteria

Percentage	Criteria	Description
0% – 44%	Not valid	Total revision
45% – 64%	Less valid	Major revision
65% – 84%	Valid	Minor revision
85% – 100%	Highly valid	No revision needed

The calculation results were then grouped into validity categories according to Table 1 and practicality categories according to Table 2. Before grouping the practicality level based on student responses, the average score for each aspect was first calculated using Formula 2 as follows:

$$S = p / n \dots\dots\dots (\text{Formula 2})$$

Where: S = Score per aspect; p = Total per aspect from all students; n = Number of students

Table 2. LKPD Practicality Criteria

Score	Description
0% – 20%	Highly impractical
21% – 40%	Impractical
41% – 60%	Fairly practical

Score	Description
61% – 80%	Practical
81% – 100%	Highly practical

To analyze the effectiveness of the LKPD in improving students' analytical skills, Formula 3—the *N-Gain* (*Normalized Gain*)—was applied, calculated based on the difference between *posttest* and *pretest* scores as follows:

$$N-Gain = (Posttest\ Score - Pretest\ Score) / (Maximum\ Score - Pretest\ Score) \dots\dots\dots (Formula\ 3)$$

Table 3. N-Gain Classification for LKPD Effectiveness

N-Gain Score	Classification	Criterion
$N-Gain \geq 0.7$	High	Effective
$0.7 > N-Gain \geq 0.3$	Moderate	Fairly Effective
$N-Gain < 0.3$	Low	Not Effective

The N-Gain calculation results were then grouped into high, moderate, or low categories according to Table 3. The LKPD was declared effective if the obtained N-Gain value fell in the moderate or high category, indicating a meaningful improvement in students' analytical skills after using the developed *Discovery learning*-based LKPD.

RESULTS AND DISCUSSION

This research produced a product in the form of *Discovery learning*-based Student Worksheets (LKPD) for the Al-Qur'an Hadith subject on the topic of *Infak* and *Sadaqah* for Class VIII-A students at MTsN 1 Rantauprapat. The developed product was designed to help students understand the topic of *Infak* and *Sadaqah* in greater depth while simultaneously improving their analytical skills through student-centered learning activities. The product development process comprised the following four stages.

Define Stage

This stage aimed to identify existing needs and problems in the Al-Qur'an Hadith learning process in Class VIII-A at MTsN 1 Rantauprapat before the LKPD product was designed. Activities at this stage included direct classroom observation, interviews with the subject teacher, and the distribution of needs analysis questionnaires to the teacher and students.

Observation results revealed that the Al-Qur'an Hadith learning process in the class was still dominated by a lecture-based approach, with uneven active student participation. Questions that stimulated analytical thinking had not been consistently posed in each session.

Interview results with the teacher uncovered three main findings. First, the analytical skills of Grade VIII students varied significantly; some were already capable of critical thinking, but others still required considerable guidance to analyze material in depth. Second, although the teacher had utilized various instructional media such as audiovisual, visual, and interactive digital media, their use was deemed ineffective in specifically training students' analytical skills. Third, *Discovery learning*-based worksheets had never been applied to the topic of *Infak* and *Sadaqah* at that school, making the need for innovative teaching material development highly relevant and urgent.

Interview results with students further reinforced the above findings. Students acknowledged difficulty in comprehending the content of Qur'anic verses and hadith, particularly on the topic of *Infak* and *Sadaqah*. This difficulty was attributed to a lack of instructional media capable of facilitating deeper understanding. When encountering difficulties, students tended to rely solely on asking the teacher or reviewing the material independently at home without structured guidance.

The findings at the Define stage reflect a significant gap between the demands of learning oriented toward analytical skills and the condition of the available teaching materials. Within the framework of the Revised Bloom's Taxonomy as proposed by Anderson & Krathwohl (2001), analytical skills are at the C4 level, requiring students to decompose information, determine relationships between parts, and discover meaning in depth. A learning

environment still dominated by lectures and informative-only teaching materials is only capable of stimulating low-level cognitive skills, namely remembering (C1) and understanding (C2), far from the analytical level that should be achieved.

This aligns with the view of Prastowo (2016), who affirms that LKPD should ideally not be merely a collection of questions, but rather a structured learning device capable of facilitating the active and independent achievement of student competencies. The absence of active learning model-based LKPD at MTsN 1 Rantauprapat further reinforces the urgency of developing a product specifically designed to address this need.

Design Stage

This stage aimed to create an initial *Discovery learning*-based LKPD prototype based on the needs analysis findings obtained in the define stage. At this stage, the researcher designed the LKPD using the Canva application, resulting in a product that was more visually attractive, systematic in its presentation, and comprehensible to Grade VIII Madrasah Tsanawiyah students. The LKPD design explicitly integrated the six stages of *Discovery learning* into each learning activity. All components were designed with consideration for the developmental characteristics of Grade VIII students and their alignment with the learning outcomes and learning objectives for the topic of *Infak* and *Sadaqah* in the Al-Qur'an Hadith subject.

The designed product contained several main components. First, an introductory section comprising a cover page, preface, table of contents, learning outcomes, learning objectives, study guide, visualization of the *Discovery learning* syntax, and a concept map of the *Infak* and *Sadaqah* topic. Second, a theoretical foundation section presenting the material on *Infak* and *Sadaqah* in a structured manner, encompassing definitions, Qur'anic evidence (QS. Al-Baqarah: 261 and 271; QS. At-Tawbah: 103; QS. At-Taghabun: 16) along with hadith (HR. Bukhari No. 1429, HR. Muslim No. 2588, HR. Tabrani No. 1258), and the wisdom of giving *infak* and *sadaqah*.

Third, two learning activities each explicitly and sequentially integrating the six stages of *Discovery learning*: stimulation, problem identification, data collection, data processing, verification, and drawing of conclusions. Fourth, a memorization table containing seven target verses and hadith for memorization as a supporting component. All components were designed with a teal and white visual theme with an Islamic character, supplemented with student character icons, Islamic ornaments, and QR codes to integrate digital technology into learning. This prototype product was subsequently validated by experts at the following stage to assess its feasibility before being tested with students.

The LKPD design produced at this stage reflects the concrete realization of the principles underlying the *Discovery learning* model. Bruner (1961) affirmed that meaningful learning occurs when students actively construct their own understanding through exploration and concept discovery. The six *Discovery learning* stages explicitly integrated into the two main activities of the LKPD, from stimulation through to drawing of conclusions, directly reflect this principle, as each stage encourages students to move from observation toward independent concept formation.

Develop Stage

The develop stage aimed to realize the product design into an actual LKPD, then test its feasibility before field use. The completed LKPD was subsequently subjected to a series of validation, revision, and student trial processes. Data obtained from expert validation sheets, teacher and student response questionnaires, and pretest and posttest score results were analyzed using a Likert scale to yield valid, practical, and effective results.

LKPD Validation Results

The LKPD product was validated by a media validator and a content validator. The product validation results can be seen in Table 4 below.

Table 4. LKPD Validation Results

Assessment Aspect	Percentage	Category
Media Expert Validation	87.5%	Highly Valid
Content Expert Validation	98.75%	Highly Valid
Average Percentage	93.12%	Highly Valid

Based on Table 4, the media expert validation obtained a percentage of 87.5% in the Highly Valid category, while content expert validation yielded a percentage of 98.75% in the Highly Valid category. Overall, the average LKPD validation percentage reached 93.12%, classified as Highly Valid. The media validator provided revision notes in the form of the addition of a Canva reference to the bibliography as a design tool, while the content validator suggested adding Tafsir text references to the theoretical foundation section of the LKPD. All validator feedback was acted upon in product revisions before field trials were conducted.

The attainment of an average validation percentage of 93.12% in the Highly Valid category indicates that the developed LKPD has met the feasibility standards both in terms of content and media presentation. This achievement aligns with the function of LKPD as described by Trianto (2009), namely as a guide for students in developing cognitive and all aspects of learning, realized in the form of a guide for investigative activities or problem-solving.

The high content expert validation percentage (98.75%) reflects that the presentation of *Infak* and *Sadaqah* material in the LKPD covering definitions, Qur'anic evidence, hadith, and wisdom was compiled accurately and in accordance with the targeted basic competencies. Meanwhile, the media expert validation percentage (87.5%) indicates that the visual presentation, readability, and presentation systematics of the LKPD were well-designed and appropriate for the characteristics of Grade VIII students. The revisions suggested by both validators were minor enhancements that strengthened the quality of the product, particularly in the accuracy of references and the depth of the religious content foundation. A comparison of the product before and after revision can be seen in Table 5 below.

Table 5. Product Revision Comparison

Improvement	Before	After
Theoretical foundation section: addition of Tafsir text reference	—	Added
References section: addition of Canva	—	Added

LKPD Practicality Test Results

After being declared valid and revised, the LKPD was tested with Class VIII-A students at MTsN 1 Rantauprapat (n=30) and its practicality was assessed through teacher and student response questionnaires. The practicality test results are presented in Table 6 below.

Table 6. LKPD Practicality Test Results

Respondent	Percentage	Category
Al-Qur'an Hadith Teacher	95%	Highly Practical
Students (n=30)	97.83%	Highly Practical
Average Percentage	96.41%	Highly Practical

Based on Table 6, the Al-Qur'an Hadith teacher's response shows a practicality percentage of 95% in the Highly Practical category, while student responses yielded a percentage of 97.83% in the Highly Practical category. The overall average LKPD practicality percentage reached 96.41%, classified as Highly Practical.

The average practicality score of 96.41% in the Highly Practical category indicates that the developed LKPD can be used easily and efficiently in the learning process, from the perspectives of both teachers and students. The high student response rate (97.83%) reflects that the visually attractive appearance, structured activity flow, and integration of technology through QR codes successfully created an enjoyable learning experience that did not overwhelm students. This aligns with the strategic role of LKPD as described by Nurjihan & Bunawan (2025), namely as a tool assisting teachers in designing practical tasks that maximize student understanding and learning capacity.

The positive teacher response (95%) also indicates that the LKPD can be seamlessly integrated into the classroom learning flow without requiring complex adaptation. This achievement also reinforces the findings of Kartini et al. (2025) who demonstrated that *Discovery learning*-based worksheets are capable of creating an active learning environment while simultaneously producing valid and practical products. Thus, the developed LKPD not

only meets theoretical feasibility standards but has also proven to be functional, easy to use, and well-received by users in the field.

Effectiveness Test Results

The effectiveness of the LKPD in improving students' analytical skills was measured through a comparison of *pretest* and *posttest* scores consisting of 5 essay questions. The test instrument had been validated by a test expert and obtained a percentage of 90.63% in the Highly Valid category. The *pretest* and *posttest* scores were then analyzed using the N-Gain formula to determine the level of improvement in students' analytical skills after using the developed LKPD. The effectiveness test results are presented in Table 7 below.

Table 7. LKPD Effectiveness Test Results

Test	Avg. Pre-Test	Avg. Post-Test	N-Gain Score	Classification	Criterion
	50.5	91.17	0.82	High	Effective

Based on Table 7, the average student *pretest* score before using the *Discovery learning*-based LKPD was 50.5, while the average *posttest* score increased significantly to 91.17. This improvement gap yielded an N-Gain Score of 0.82, classified as High with an Effective criterion, consistent with the established category ($N\text{-Gain} \geq 0.7 = \text{High} = \text{Effective}$).

The significant improvement in students' analytical skills, as reflected in the average score increase of 40.67 points and an N-Gain value of 0.82, constitutes strong empirical evidence that the developed *Discovery learning*-based LKPD is effective in improving students' analytical skills on the topic of *Infak* and *Sadaqah*. This improvement is inseparable from the role of the six *Discovery learning* stages, which systematically drive students to move from merely remembering and understanding toward higher cognitive activities.

In the stimulation and problem identification stages, students are stimulated to observe contextual phenomena and formulate problems, directly training the *differentiating* analytical sub-skill. In the data collection and processing stages, students gather information from various supporting evidence and organize it into structured worksheets, training the *organizing* skill. The verification and drawing of conclusions stages prompt students to connect their findings with provisional hypotheses and formulate generalizations, reflecting the *attributing* skill. These three sub-skills are the core components of C4-level analytical ability as detailed by Anderson & Krathwohl (2001).

These results are consistent with the findings of Hardianti et al. (2025), who concluded that the implementation of *Discovery learning* is capable of enhancing students' analytical and critical thinking skills, particularly in identifying issues, analyzing values, and formulating solutions. Furthermore, Hidayati et al. (2024) confirmed that *Discovery learning* has a significant effect on improving students' HOTS skills. In the context of the topic of *Infak* and *Sadaqah*, this improvement in analytical skills carries deeper significance; students are not only capable of memorizing supporting evidence, but have developed into thinkers capable of analyzing the content of Qur'anic verses, differentiating the concepts of *infak* and *sadaqah*, and connecting religious values to the social realities of their lives. This reflects the concrete realization of the goal of Al-Qur'an Hadith learning as expressed by Isnaini (2025): to form students capable of understanding, internalizing, and practicing Islamic teachings comprehensively in daily life.

Disseminate Stage

At the Disseminate stage, the *Discovery learning*-based LKPD that had been declared valid, practical, and effective was disseminated to the Al-Qur'an Hadith teacher and Class VIII-A students at MTsN 1 Rantauprapat as an alternative teaching material ready for use in the learning process. Dissemination was conducted on a limited scale in accordance with the scope of this research. The findings were also published through a scientific article as a contribution to the development of Islamic Religious Education teaching materials at the Madrasah Tsanawiyah level.

The limited-scale dissemination of the LKPD at this stage constitutes a strategic first step in introducing teaching material innovation to the school environment. Although not yet implemented broadly beyond the research subjects, this limitation provides space for more focused and in-depth evaluation. The findings from the entire

development sequence validity (93.12%), practicality (96.41%), and effectiveness (N-Gain 0.82) provide a strong foundation for wider dissemination in the future. This is consistent with the dissemination principle in the 4D model proposed by Thiagarajan et al. (1974), namely that products that have undergone a comprehensive series of validation and trials are worthy of being disseminated to a wider audience as an alternative teaching material of proven quality.

CONCLUSION

Based on the results of the research and development conducted, it can be concluded that the *Discovery learning*-based LKPD on the topic of *Infak* and *Sadaqah* for Class VIII-A students at MTsN 1 Rantauprapat was successfully developed, meeting the three main feasibility criteria: valid, practical, and effective.

First, in terms of validity, the developed LKPD achieved an average validation percentage of 93.12%, classified as Highly Valid, with a media expert validation percentage of 87.5% and a content expert validation percentage of 98.75%. This indicates that the developed LKPD has met feasibility standards in terms of both content and media presentation, and is fit for use in the learning process.

Second, in terms of practicality, the LKPD achieved an average practicality percentage of 96.41%, classified as Highly Practical, based on a teacher response of 95% and a student response of 97.83%. This high level of practicality indicates that the LKPD can be used easily and efficiently in the learning process, from the perspectives of both teachers and students, and is capable of creating an enjoyable and non-burdensome learning experience.

Third, in terms of effectiveness, the LKPD proved effective in improving students' analytical skills, as evidenced by an increase in the average score from 50.5 on the *pretest* to 91.17 on the *posttest*, with an N-Gain Score of 0.82 classified as High and meeting the Effective criterion. This significant improvement constitutes empirical evidence that the six *Discovery learning* stages integrated into the LKPD activities namely stimulation, problem identification, data collection, data processing, verification, and drawing of conclusions systematically guided students to develop C4-level analytical skills encompassing the sub-skills of *differentiating*, *organizing*, and *attributing*.

Overall, this research makes a tangible contribution in the form of an innovative alternative teaching material specifically designed to improve students' higher-order thinking skills in Al-Qur'an Hadith learning at the Madrasah Tsanawiyah level. This *Discovery learning*-based LKPD can serve as a reference for teachers in designing learning oriented toward analytical skills, while simultaneously providing a foundation for further research on the development of Islamic Religious Education teaching materials based on innovative learning models across wider topics and educational levels.

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