

JURNAL BASICEDU

Volume 6 Nomor 2 Tahun 2022 Halaman 2222 - 2230
Research & Learning in Elementary Education
https://jbasic.org/index.php/basicedu



The Development of Student Worksheets (LKPD) Based on Islamic Characteristics in Mathematics Fractional Materials in Elementary School

Nasywa Hilmi^{1⊠}, Sapri²

State Islamic University of North Sumatra Medan, Indonesia^{1,2} E-mail: pgmi2018nasywahilmi@gmail.com¹, sapri@uinsu.ac.id²

Abstrak

Pendidikan berpengaruh besar terhadap perkembangan kualitas sumber daya manusia. LKPD berbasis karakter Islami diyakini berkontribusi dalam pembentukan karakter peserta didik. LKPD ini diterapkan pada peserta didik kelas III SD Islam Darul Mustafa Medan pada materi pecahan. Tujuan dari penelitian ini adalah untuk mengembangkan LKPD berbasis karakter Islami yang valid, praktis, efektif dalam peningkatkan pengetahahuan dan karakter Islami peserta didik dengan menggunakan penelitian pengembangan (*Research and Development*). Penelitian dan Pengembangan ini menggunakan model ADDIE. Desain penelitian ini menggunakan desain eksperimen One Group Pretest Postes Design. Data pre dan post test diolah untuk mengetahui peningkatan pemahaman konsep, sedangkan hasil observasi dan skala sikap diolah untuk mengetahui peningkatan nilai kepribadian antar individu murid. Hasil penelitian nilai rata-rata hasil observasi N-gain Score menurut Hake, R.R, 1999 artinya 92,976190476 atau 93 % termasuk dalam kategori efektif, menunjukkan bahwa penggunaan LKPD berbasis karakter islami pada kategori tinggi dalam peningkatkan keefektifitasan belajar siswa.

Kata Kunci: LKPD Pecahan, Nilai-nilai Islami, Pendidikan Karakter.

Abstract

Education has a big effect on the development of the quality of human resources. LKPD based on Islamic character is believed to contribute to the formation of the character of students. This LKPD is applied to third-grade students of SD Islam Darul Mustafa Medan on fractions. The purpose of this research is to develop LKPD based on Islamic character that is valid, practical, effective in increasing the knowledge and Islamic character of students by using research development (Research and Development). This Research and Development uses the ADDIE model. The design of this study used the experimental design of One Group Pretest Posttest Design. The pre and post-test data were processed to determine the increase in understanding of the concept, while the results of observations and attitude scales were processed to determine the increase in personality values between individual students. The results of the study the average value of the observed N-gain Score according to Hake, R.R, 1999, which means 92.976190476 or 93% is included in the effective category, indicating that the use of LKPD based on Islamic character is in the high category in increasing the effectiveness of student learning. Keywords: Fractional LKPD, Islamic Values, Character Education.

Copyright (c) 2022 Nasywa Hilmi, Sapri

⊠ Corresponding author :

Email : pgmi2018nasywahilmi@gmail.com ISSN 2580-3735 (Media Cetak)
DOI : https://doi.org/10.31004/basicedu.v6i2.2381 ISSN 2580-1147 (Media Online)

Jurnal Basicedu Vol 6 No 2 Tahun 2022 p-ISSN 2580-3735 e-ISSN 2580-1147

INTRODUCTION

The human resources of a nation are greatly influenced by the quality of education (Sudarma, 2012). The quality of education referred to in this context is not only limited to aspects of the quality of education graduates but also fulfills aspects of skills and character (affective) (Ningrum, 2016). This is in line with the mandate of the 2013 curriculum which prioritizes the realization of character through education. Where, the curriculum is structured as a reference that all subjects assist students in increasing faith, piety, and noble character (Cahyono, 2016).

Character education in Indonesia is currently the main focus of education, this is based on the moral problems faced by the country with moral and ethical degradation (Suwartini, 2017; Ainissyifa, 2014; Assingkily & Rangkuti, 2020). Many educators are currently limited to teaching theories and concepts related to strengthening character education in schools, even though the realm of methodology, practice, and appreciation is very much needed in the daily life of children based on Islamic characters. This is in line with the theory put forward by Lickona (1991:6), that education is a "container" that can help shape the character of a nation. On this basis, it is understood how quality education affects the progress and civilization of a nation.

Given the importance of the objectives listed in the 2013 curriculum for mainstreaming the character of the nation's children, it is proper that the curriculum be made successful through socialization, provision of facilities, and increasing the competence of educators (Ansori, 2016:19-56). The fulfillment of existing facilities is learning tools in the form of the syllabus (teacher and student learning guidelines) and learning reference themes (there are teacher books and student books). Meanwhile, other learning tools such as student worksheets (LKPD) are still considered heavy by teachers in their preparation, especially the concept of development in the form of Islamic character-based worksheets.

Referring to the definition given by the Ministry of National Education (2008:13), LKPD (student worksheet) are sheets containing tasks that must be done by students, usually including instructions, steps, and other guidelines to complete a task regarding Basic Competencies (KD) to be achieved. LKPD has an important role in the learning process, because it can increase student activity in learning, and can help teachers use it during the learning process. It aims to direct students independently in finding the concepts of their activities, as well as improve understanding and meaningful learning for students effectively. In fact, in the LKPD there are also efforts to develop process skills and optimize student learning outcomes (Septian, *et.al.*, 2019).

As part of the 2013 curriculum, LKPD is applied to teaching materials for each subject, including fractions in mathematics (Beladina, *et.al.*, 2013). Through the LKPD facility, it is hoped that it can help the educational process towards the goals that have been mutually agreed upon. In the context of the LKPD fractional material, it is hoped that it can help the formation of Islamic character in students who are guided by the Qur'an and hadith (Effendi, *et.al.*, 2021). With the LKPD material on mathematical fractions, it is hoped that it can motivate students to be proactive in learning, in line with the 2013 curriculum concept, centered on students as subjects and objects of learning. This further strengthens the teacher's role in facilitating students' learning and gaining experience to find concepts, improve understanding/reasoning, and the life principles needed for students' daily life.

In general, the LKPD contains aspects of learning practicum instructions, experiments or tests that students can do outside of school, practice materials and questions, and various forms of efforts and instructions that can stimulate students to actively participate in a series of learning processes (Komarudin & Permana, 2019:79-91; Choirudin, *et.al.*, 2021). Through learning mathematics with LKPD based on Islamic characters, it is hoped that changes will occur to improve the quality of graduates with character and excellence based on Islamic values. This is based on learning that has referred to the principles of the Qur'an and hadith in the 2013 curriculum.

According to Hartanto, *et.al.* (2019:163-171), an effort to realize Islamic character-based learning in this fractional material, requires the design of innovative work by teachers in creating adaptive learning according to the times and current technological sophistication. In addition, the use of LKPD based on Islamic character is expected to be developed with the help of existing technology. Thus, students will feel happy, comfortable, and enthusiastic about being actively involved in learning with the novelties that exist.

Indeed, studies on LKPD in mathematics learning have been investigated by previous researchers, who discussed the contextual aspects of LKPD-assisted mathematics learning (Nareswary, *et.al.*, 2021:204-213), the urgency of LKPD in learning mathematics (Umbaryati, 2016:217-225), development of problem-based learning-based LKPD (Zulfah, 2017:1-12; Pansa, *et.al.*, 2017; Herlina & Ihsan, 2020:46-54; Budiono, 2014), development of culture-based LKPD (Wandari, *et.al.*, 2018:47-55), scientific-based LKPD design (Asmaranti, *et.al.*, 2018), inquiry-based LKPD (Yokri & Saltifa, 2020:76-88), LKPD using Bruner's learning model (Kurniawan, 2015), and Islamic integrated LKPD (Rizkiah, *et.al.*, 2018:39-47).

Observing the literature review above, it was found space as a form of novelty and gap analysis between this study and the previous one. The gap analysis in question is in the form of (1) differences in the research methods used, previously there was no research through research and development, (2) fractional material in mathematics learning has never been studied regarding LKPD assistance based on Islamic character, and (3) research This program develops the LKPD at SD Islam Darul Mustafa Medan which has never been done at this school. On this basis, the researchers conducted a further study which was summarized in the title, "Development of Islamic Character-Based Student Worksheets (LKPD) in Mathematics Subjects in Fractional Materials in Grade III SD/MI".

This research will develop learning worksheets that can be used as a reference for the learning process by teachers and students. On this basis, the limitation of the research problem is focused on the unavailability of learning tools in the form of LKPD based on Islamic characters on fractional material in class III SD Islam Darul Mustafa Medan as a support for the application of learning guided by the Qur'an and hadith. In particular, this problem is divided into two, namely (1) the development of LKPD based on Islamic characters on valid and practical fractional material and (2) testing the effectiveness of LKPD in developing Islamic characters. Through this research, it is hoped that it will be able to provide scientific information related to the development of Islamic character-based LKPD on fractional material and add to the scientific treasures of scientific integration at the elementary school level.

METHOD

This study uses the type of research and development (R&D) (Sugiyono, 2019), as an effort to test learning products in the form of Islamic character-based LKPD modules in the fractional material of mathematics subjects. The background of this research is Darul Mustafa Islamic Elementary School, Medan, to be exact, third-grade students. The ADDIE model (Analysis, Design, Development, Implementation, Evaluation) is used to systematically present the stages of development to achieve the objectives of learning and research development (Branch, 2009). The following shows picture 1, about the stages of the ADDIE model.

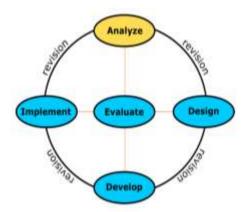


Figure 1. ADDIE Model.

Development with the above model (figure 1), includes 5 (five) steps of the development process, namely analysis, design, development, implementation, and evaluation. The following is a description of the 5 (five) phases or steps:

1. Analysis

At this stage, the researcher conducts a preliminary study or research needs analysis, needs identification, and task analysis. The output of this stage is the identification of needs in the field related to LKPD specifications.

2. Design

At this stage, the researcher provides an LKPD validation sheet containing clarification of assessments and notes as expert input regarding the LKPD design, which includes the integration of Islamic values, character, and substance about the LKPD. Furthermore, the results of contributions from experts will be developed as an improvement effort.

3. Development

This stage is a form of development from the input of experts (media experts, material experts, linguists) as a revision of the learning media that will be produced. For this reason, tools are used to validate the LKPD through expert advice and input on the content and form of the LKPD.

4. Implementation

At this stage, the implementation of teaching materials with the help of the LKPD has been revised, verified, and tested and has been edited according to expert input. Furthermore, the results (products) in the form of modules are ready to be used as one of the learning tools in the kinesthetic learning process of fractional mathematics in grade III SD/MI. The goal is to explore student responses regarding LKPD based on Islamic characters in the material.

5. Evaluation

At this stage, the final revision of the developed product is carried out, according to the input and suggestions given by the experts during the implementation stage.

RESULTS AND DISCUSSION

Based on the data collected, the research findings have been recapitulated. Then, it was analyzed to determine the effectiveness of using Islamic character-based worksheets in mathematics subjects with fractions in grade III SD/MI. The design of this study used an experimental one-group pre-test post-test design. The following are the results of the research data.

Analysis of LKPD needs was carried out by visiting SD Islam Darul Mustafa Medan. According to the results of observations in schools, several findings were obtained which included the thematic textbooks and LKPD used, the realization of content standards at the elementary school level, the physical condition of the school, the condition of students, and the condition of classroom teachers. The results of the analysis show that

all the data obtained are in sync with the needs (Pribadi, 2016). However, to support the school's vision and mission, namely to produce students who excel, are disciplined, have a noble character, have knowledge and piety, have the knowledge, technology, and care for the environment, as well as improve religious activities and daily practice, so it is needed internalization of Islamic values in every aspect of learning, especially mathematics.

The expert validation stage is used to obtain the feasibility of several experts (experts). LKPD validation was carried out by three validators to provide input and suggestions for improvement in the development of mathematics teaching materials (learning tools). Overall, the results of the study from the expert validators indicate that it is hoped that some additions will be made so that the LKPD can be used in accordance with the learning objectives and targets to be achieved as well as the feasibility to proceed to the next stage. The next stage is that the LKPD is tested for practicality by educators at SD Islam Darul Mustafa, then tested on several students to test the effectiveness of the LKPD.

The assessment of the didactic aspect includes the presentation of learning steps, while the assessment of the content aspect includes an assessment of the relevance or suitability of the material, the consistency of the material, and the adequacy of the material. Learning begins by conveying problems in everyday life related to the subject matter to stimulate students to independently discover the concepts that have been studied. LKPD material is not presented in a standard form but is found through innovation activities. In the activity section, the arguments of the Qur'an regarding the problem and the hadith are given, then at the end of the discovery activity, it is always followed by several guiding questions that direct students to make conclusions from the discovery activities that have been carried out individually or in groups.

On the criteria for the validity of the didactic aspect, it can be concluded that the LKPD already contains an appropriate way of presenting material using innovative learning that facilitates students to construct their knowledge to understand concepts and improve mathematical reasoning abilities. The problems presented are problems experienced by students in their daily lives and can stimulate students to carry out discovery activities.

The guiding questions direct students to systematically carry out discovery activities according to the worksheet. Through LKPD, students are facilitated to formulate problems, propose tentative assumptions or hypotheses, collect the required data, explain the truth of the allegations that have been designed according to the results of data processing, and provide their ideas in drawing conclusions based on the results of the proof of the allegations (hypotheses) that have been designed. In addition, students are also facilitated regarding strengthening the understanding of the concept of discovery through the application of the questions listed in the LKPD, as well as training students' mathematical reasoning skills through solving "challenging" questions that require reasoning.

In the aspect of content (material) and discovery activities, it is presented according to indicators of competency achievement. Innovation activities are equipped with information about the tools needed and how they work which are explained with pictures. On the criteria of content validity, it can be concluded that the LKPD used has met the principles of depth and accuracy of the material. LKPD already contains material that is in sync with SK (competency standards) and KD (basic competencies) and achieves predetermined indicators. In addition, the material has also considered the level of difficulty of completion for students.

After the product was designed and revised according to the input (suggestions for improvement) from the validator, the researchers conducted a field trial involving a wider range of subjects, namely 21 third grade students at SD Islam Darul Mustafa Medan using the one group pre-test post-test experimental method. Data analysis was carried out according to student assessment questionnaires on LKPD, observations on the use of LKPD, observations on the application of Islamic characters. At this stage, a pre-test was used to compare the conditions before being given treatment and a post-test was used to make it more accurate by using the initial and final observation sheets.

The analysis of increasing Islamic character in students through LKPD is carried out using standard gain, calculated by the following formula:

N- GAIN =
$$\frac{Skor\ Posttest-Skor\ Pretest}{Skor\ Ideal-Skor\ Pretest}$$

Note: The ideal score is the maximum (highest) score that can be achieved.

 $\begin{tabular}{ll} Table 1 \\ \hline Distribution of Gain Score \\ \hline Gain Score Sharing \\ \hline N-Gain Score Category \\ \hline g>0.7 High \\ \hline 0.3 \le g \le 0.7 Medium \\ g<0.3 Low \\ \hline \end{tabular}$

In determining or knowing the level of effectiveness of a particular method or system, some tables can be used, namely:

Table 2
Categories of Interpretation of N-Gain Effectiveness

Category Interpretation of N-Gain Effectiveness		
Percentage (%)	(%) Interpretation	
< 40	Ineffective	
40 - 55	Less effective	
56 - 75	Effective enough	
>76	Effective	

The table above is a form of interpretation to determine the effectiveness of using a method or learning system using the original N-Gain Score. After performing the N-Gain test, the score results from the data analysis can be described in graph 1 and table 3, below:

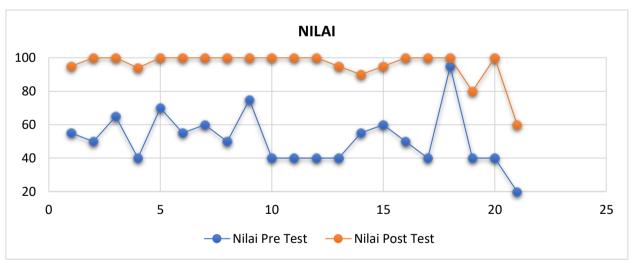


Figure 2. Analysis Results Using N-Gain Original Score

Table 3
N-Gain. Test Results

N-Gain. Test Results		
	N-Gain Score	N-Gain Score Percent
Average	0,929761905	92,976190476
Category interpretation Effectiveness of N-Gain		Effective
N-Gain score sharing category	High	

Based on the results of the N-Gain Score test calculation above, it shows that the average value of the N-Gain Score observations according to Hake, RR, 1999 means 92.976190476 or 93%, included in the effective category, using an N-Gain Score of at least 50 % and a maximum of 100%. From the analysis of the data above, it can be concluded that the use of LKPD based on Islamic characters in mathematics subjects with fractions in grade III SD/MI is in the high category in increasing student learning effectiveness.

CONCLUSION

Based on the presentation of the findings above, it is concluded that the results of the study the average value of the observed N-gain Score according to Hake, RR, 1999 means 92.976190476 or 93% is included in the effective category, using a minimum N-Gain Score value of 50% and a maximum of 100 %. From the analysis of the data above, it can be concluded that the use of LKPD based on Islamic characters in mathematics subjects with fractions in grade III SD/MI is in the high category in increasing student learning effectiveness. Thus, the LKPD can be used as a learning tool for elementary school students.

BIBLIOGRAPHY

- Ainissyifa, H. 2014. Pendidikan Karakter dalam Perspektif Pendidikan Islam. *Jurnal Pendidikan Universitas Garut*, 8(1), 1-26. http://journal.uniga.ac.id/index.php/JP/article/view/68/69.
- Ansori, A.H. 2016. Strategi Peningkatan Sumber Daya Manusia dalam Pendidikan. *Qathruna*, 2(2), 19-56. http://103.20.188.221/index.php/qathruna/article/view/3.
- Asmaranti, W., Pratama, G.S., & Wisniarti, W. 2018. Desain Lembar Kerja Peserta Didik (LKPD) Matematika dengan Pendekatan Saintifik Berbasis Pendidikan Karakter. *Prosiding Seminar Nasional Pendidikan Matematika Etnomatnesia*, 1(1). https://jurnal.ustjogja.ac.id/index.php/etnomatnesia/article/view/2395.
- Assingkily, M.S., & Rangkuti, M. 2020. Urgensitas Pendidikan Akhlak Bagi Anak Usia Dasar: Studi Era Darurat Covid 19. *Takziya*, 9(2). http://jurnaltarbiyah.uinsu.ac.id/index.php/tazkiya/article/view/836.
- Assingkily, M.S. 2021. *Metode Penelitian Pendidikan: Panduan Menulis Artikel Ilmiah dan Tugas Akhir.* Yogyakarta: K-Media.
- Beladina, N., Suyitno, A., & Khusni, K. 2013. Keefektifan Model Pembelajaran *Core* Berbantuan LKPD Terhadap Kreativitas Matematis Siswa. *Unnes Journal of Mathematics Education*, 2(3). https://journal.unnes.ac.id/sju/index.php/ujme/article/view/3363.
- Branch, R.M. 2009. Instructional Design: the ADDIE Approach. London: Springer Science Business Media.
- Budiono, C.S. 2014. Pembelajaran Berbasis Masalah Berorientasi PISA Berpendekatan PMRI Bermedia LKPD Meningkatkan Literasi Matematika Peserta Didik SMP. *Disertasi*, Universitas Negeri Semarang. http://lib.unnes.ac.id/23212/1/4101410030.pdf.
- Cahyono, H. 2016. Pendidikan Karakter: Strategi Pendidikan Nilai dalam Membentuk Karakter Religius. *Ri'ayah: Journal of Social and Religious, 1*(2), 230-240. http://e-journal.metrouniv.ac.id/index.php/riayah/article/view/pendidikan-karakter%3A-strategi-pendidikan-nilai-dalam-membentuk-karakter-religius/102.
- Choirudin, C., Anwar, M.S., Azizah, I.N., Wawan, W., & Wahyudi, A. 2021. Pengembangan LKPD Matematika Berbasis Kaligrafi dengan Pendekatan Guided Discovery Learning. *Jurnal Pendidikan Matematika*, 7(1), 52-61. http://www.riset.unisma.ac.id/index.php/jpm/article/view/6738.
- Depdiknas. 2008. Panduan Pengembangan Bahan Ajar. Jakarta: Depdiknas RI.
- Effendi, R., Herpratiwi, H., & Sutiarso, S. 2021. Pengembangan LKPD Matematika Berbasis Problem Based Learning di Sekolah Dasar. *Jurnal Basicedu*, *5*(2), 920-929. http://jbasic.org/index.php/basicedu/article/view/846.

- 2229 The Development of Student Worksheets (LKPD) Based on Islamic Characteristics in Mathematics Fractional Materials in Elementary School Nasywa Hilmi, Sapri DOI: https://doi.org/10.31004/basicedu.v6i2.2381
- Hartanto, C.F.B., Rusdarti, R., & Abdurrahman, A. 2019. Tantangan Pendidikan Vokasi di Era Revolusi Industri 4.0 dalam Menyiapkan Sumber Daya Manusia yang Unggul. *Prosiding Seminar Nasional Pascasarjana (Prosnampas)*, 2(1), 163-171. https://proceeding.unnes.ac.id/index.php/snpasca/article/download/267/394.
- Herlina, M., & Ihsan, I. 2020. Penelitian Pendahuluan Mengenai LKPD Model PBL Terkait Kemampuan Berpikir Matematis. *Mathema: Jurnal Pendidikan Matematika*, 2(2), 46-54. https://ejurnal.teknokrat.ac.id/index.php/jurnalmathema/article/view/733.
- Komarudin, K., & Permana, P.T. 2019. LKPD Berbasis Scientific Approach Terhadap Kemampuan Pemecahan Masalah Matematis Peserta Didik Sekolah Dasar. *TERAMPIL: Jurnal Pendidikan dan Pembelajaran Dasar*, 6(1), 79-91. http://www.ejournal.radenintan.ac.id/index.php/terampil/article/view/4385.
- Kurniawan, A. 2015. Pengembangan Lembar Kerja Peserta Didik (LKPD) Penyelesaian Soal Cerita Matematika Materi Bangun Datar Menggunakan Model Pembelajaran Bruner di Kelas V Sekolah Dasar. *Disertasi*, Universitas Muhammadiyah Purwokerto. http://repository.ump.ac.id/56/.
- Lickona, T. 1991. Educating for Character: How Our School Can Teach Respect and Responsibility. New York: Bantam Books.
- Nareswari, N.L.P.S.R., Suarjana, I.M., & Sumantri, M. 2021. Belajar Matematika dengan LKPD Berbasis Kontekstual. *Mimbar Ilmu*, 26(2), 204-213. https://ejournal.undiksha.ac.id/index.php/MI/article/view/35691.
- Ningrum, E. 2016. Pengembangan Sumber Daya Manusia Bidang Pendidikan. *Jurnal Geografi Gea*, 9(1). https://ejournal.upi.edu/index.php/gea/article/view/1681.
- Pansa, H.E., Caswita, C., & Suharsono, S. 2017. Pengembangan LKPD dengan Model Problem Based Learning untuk Meningkatkan Kemampuan Komunikasi Matematis Siswa. *Jurnal Pendidikan Matematika Universitas Lampung*, 5(3). http://jurnal.fkip.unila.ac.id/index.php/MTK/article/view/12640.
- Pribadi, B.A. 2016. Desain dan Pengembangan Program Pelatihan Berbasis Kompetensi Implementasi Model ADDIE. Jakarta: Prenada Media Group.
- Rizkiah, A.W., Nasir, N., & Komarudin, K. 2018. LKPD Discussion Activity Terintegrasi Keislaman dengan Pendekatan Pictorial Riddle pada Materi Pecahan. *Desimal: Jurnal Matematika*, 1(1), 39-47. http://ejournal.radenintan.ac.id/index.php/desimal/article/view/1926.
- Septian, R., Irianto, S., & Andriani, A. 2019. Pengembangan Lembar Kerja Peserta Didik (LKPD) Matematika Berbasis Model Realistic Mathematics. *Jurnal Educatio FKIP UNMA*, *5*(1). https://ejournal.unma.ac.id/index.php/educatio/article/download/56/40.
- Sudarma, K. 2012. Mencapai Sumber Daya Manusia Unggul (Analisis Kinerja dan Kualitas Pelayanan). *Jurnal Dinamika Manajemen*, *3*(1). https://journal.unnes.ac.id/nju/index.php/jdm/article/view/2462.
- Sugiyono, S. 2019. Metode Penelitian dan Pengembangan. Bandung: Alfabeta.
- Suwartini, S. 2017. Pendidikan Karakter dan Pembangunan Sumber Daya Manusia Berkelanjutan. *Trihayu: Jurnal Pendidikan ke-SD-an*, 4(1). https://jurnal.ustjogja.ac.id/index.php/trihayu/article/view/2119.
- Umbaryati, U. 2016. Pentingnya LKPD pada Pendekatan Scientific Pembelajaran Matematika. *Prisma: Prosiding Seminar Nasional Matematika, 1*(1), 217-225. https://journal.unnes.ac.id/sju/index.php/prisma/article/view/21473.
- Wandari, A., Kamid, K., & Maison, M. 2018. Pengembangan Lembar Kerja Peserta Didik (LKPD) pada Materi Geometri Berbasis Budaya Jambi untuk Meningkatkan Kreativitas Siswa. *Edumatika: Jurnal Riset Pendidikan Matematika*, 1(2), 47-55. http://ejournal.iainkerinci.ac.id/index.php/edumatika/article/view/232.

- 2230 The Development of Student Worksheets (LKPD) Based on Islamic Characteristics in Mathematics Fractional Materials in Elementary School Nasywa Hilmi, Sapri DOI: https://doi.org/10.31004/basicedu.v6i2.2381
- Yokri, V., & Saltifa, P. 2020. LKPD Matematika Berbasis Inquiry untuk Meningkatkan Kemampuan Pemecahan Masalah Peserta Didik SMK Kelas X. *Jurnal Equation: Teori dan Penelitian Pendidikan Matematika*, 3(1), 76-88. https://ejournal.iainbengkulu.ac.id/index.php/equation/article/view/2823.
- Zulfah, Z. 2017. Tahap Preliminary Research Pengembangan LKPD Berbasis PBL untuk Materi Matematika Semester 1 Kelas VIII SMP. *Jurnal Cendekia: Jurnal Pendidikan Matematika*, 1(2), 1-12. http://j-cup.org/index.php/cendekia/article/view/59.