

## DEVELOPMENT OF LKPD MATERIAL ON BASIC SERVICE TECHNIQUES IN VOLLEYBALL IN GRADE VIII OF NAPALLICIN STATE MIDDLE SCHOOL

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**Abstract :** This study aims to develop a Student Worksheet (LKPD) on the basic service technique in volleyball for eighth-grade students at SMP Negeri Napallicin using the ADDIE development model, which includes the stages of Analysis, Design, Development, Implementation, and Evaluation. This research is a type of Research and Development (R&D). The validity results showed that the LKPD was in the "very valid" category with an average score of 0.90, based on assessments from a media expert (0.9), a language expert (0.92), and a material expert (0.9). The practicality of the LKPD was tested through one-to-one, small group trials, and teacher responses, resulting in an average practicality percentage of 83.44%, categorized as very practical. The effectiveness test was conducted by administering pretests and posttests to 20 students, with an average pretest score of 34.75 and a posttest score of 82.75. The N-gain score of 0.73 indicated a high category of learning improvement. Therefore, the LKPD on the basic service technique in volleyball is considered valid, practical, and effective for use in the learning process.

**Keywords:** *LKPD, Basic Service Technique, Volleyball, ADDIE Model, Validity, Practicality, Effectiveness*

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### INTRODUCTION

Teaching materials are a set of learning tools that contain learning content, methods, limitations, and evaluation procedures, which are systematically and attractively designed to achieve competencies or sub-competencies with all their complexities (Lestari, 2013, p. 1). According to Nana (2019, p. 12), teaching materials are books that

contain knowledge arranged based on basic competencies in a particular curriculum and are used by students for learning. Meanwhile, Kosasih (2021, p. 1) states that teaching materials are all forms of materials used in the teaching process. Teaching materials can also be interpreted as materials that must be studied by learners as a means of learning. Teaching materials may include content related to knowledge, skills, and attitudes that students must achieve in relation to specific basic competencies.

In general, teaching materials are resources that contain information and insights that can be utilized by users. Teaching materials include all materials, whether in the form of information, text, or tools, that are systematically designed to present the competencies to be mastered by learners and are used in the teaching and learning process for the purposes of learning analysis and instructional planning (Prastowo, 2016, p. 17).

LKPD (Student Worksheets) are defined as printed teaching materials in the form of sheets of paper containing learning materials, summaries, and instructions for carrying out learning tasks that must be completed by students, referring to the basic competencies (KD) to be achieved (Prastowo, 2011). The use of LKPD serves as a tool to assist students in the learning process at school because it contains material summaries derived from various relevant sources. This makes the learning process more effective within the available time. LKPD include learning materials, practice exercises, and instructions for learning activities. HOTS (Higher Order Thinking Skills) refer to higher-level cognitive abilities that have been included and emphasized in the 2013 Curriculum (Masitoh & Aedi, 2020; Faiqoh et al., 2019). The implementation of the revised 2013 Curriculum currently refers to updated learning tools and processes.

Volleyball is a team sport played by two teams, each consisting of six players. Volleyball is a complex game that is not easily performed by everyone (Muttaqin, 2016). Volleyball is played by two teams of six players, with the main objective being to hit the ball into the opponent's court so that the opponent cannot return it (Mushofi, 2017).

Playing volleyball requires reliable movement coordination to perform all techniques involved in the game; therefore, special training time is needed to improve volleyball skills. One effort to enhance volleyball skills is through extracurricular volleyball activities (Ariyanti Girsang, 2022).

Based on direct preliminary observations conducted on October 4, 2024, at SMP Negeri Napallicin, it was found that learning resources for students are still limited due to the

absence of student worksheets (LKS/LKPD). Students still rely on printed textbooks provided by the school, and there is a lack of teaching materials delivered by teachers. As a result, students are not motivated to seek additional information and tend to depend solely on the material provided by the teacher during classroom and field learning activities. In fact, not all learning materials can be explained in detail by teachers due to the limited instructional time available.

Most theoretical instruction is delivered outside the classroom or on the field without the use of any instructional media, so the information provided comes only from the physical education (PJOK) teacher. PJOK teachers often deliver two to three subtopics in a single meeting in a brief manner. In addition, PJOK teachers at the school often overlook the principle of continuous learning systems, meaning that teaching materials that should differ across educational levels tend to appear the same and monotonous.

When examining the teaching of basic service techniques in volleyball from elementary school to senior high school, all levels focus on teaching techniques and rules in a similar way. However, instruction on basic volleyball service techniques at the elementary, junior high, and senior high school levels should have distinct characteristics and objectives clearly stated in the syllabus and curriculum. This situation has also resulted in many students being less active during the learning process. Although physical education teachers have provided the desired material, inadequate facilities and infrastructure cause students to spend physical education class time using limited equipment.

From the explanation above, it can be understood that students need learning experiences that are optimal and easy to understand. Teachers are required to have teaching materials or supporting learning media to assist the learning process so that meaningful improvements can occur. Therefore, the researcher is interested in developing learning media in the form of LKPD focusing on basic volleyball service techniques for eighth-grade students at SMP Negeri Napallicin, so that the learning process can proceed in accordance with the expected objectives.

## **METHODOLOGY**

The model used in this study is Research and Development (R&D). The R&D method is a research approach aimed at designing new products, testing the

effectiveness of existing products, and further developing them to produce improved or new products. According to Sa'adah and Wahyu (2020, p. 32), the development process refers to the ADDIE model, which consists of five stages.

According to Cahyadi (2019, p. 40), the ADDIE model is one of the instructional system design models that illustrates the fundamental stages of a learning system and is relatively easy to implement. The LKPD developed in this study is a student worksheet designed through learning activities focusing on basic volleyball service techniques. This LKPD is specifically designed using a contextual learning model, so that the learning materials are closely related to real-life situations and the students' environment. The learning process is conducted in accordance with students' conditions and learning contexts.

This LKPD is expected to facilitate teachers in the teaching and learning process, as students will find it easier to understand the learning materials, enabling them to achieve the intended learning objectives. The LKPD developed in this study has contextual characteristics, meaning that it presents materials that are different from conventional LKPDs and is easier for students to understand.

The characteristics of a good LKPD include: (1) containing questions and activities that must be completed by students, such as experiments or practical tasks; (2) being a printed teaching material; (3) presenting summarized materials that are concise yet cover the essential content students need to learn or practice; and (4) including key components such as a foreword, introduction, table of contents, and other supporting sections.

The research method employed in this study is Research and Development (R&D). This study aims to produce a learning product in the form of an LKPD (Student Worksheet) that is valid and practical to support the learning process of basic volleyball service techniques for eighth-grade students at SMP Negeri Napallicin, as well as to increase students' learning interest. In this study, the ADDIE development model is used as the framework for product development.

## RESULT

The development of the Student Worksheet (Lembar Kerja Peserta Didik/LKPD) was carried out using the ADDIE development model. This development research applied five stages, namely: **Analyze, Design, Development, Implementation, and**

**Evaluation.** The purpose of these stages was to determine whether the LKPD on basic volleyball service techniques, which was implemented for eighth-grade students at SMP Negeri Napallicin, was **valid, practical, and effective**.

The results of the analysis conducted on the aspects of media design, language, and learning content through validation questionnaires indicated that the LKPD teaching material was feasible to be tested with several revisions based on the validators' suggestions. The recap of the validation results from the three experts is presented in Table 4.1.

**Table 4.1**

**Recapitulation of Validator Assessment Results**

<b>Validator</b>	<b>Score Obtained</b>	<b>Criteria</b>
Media expert	0.90	Very valid
Language expert	0.92	Very valid
Material expert	0.90	Very valid
<b>Average</b>	<b>0.90</b>	<b>Very valid</b>

The overall practicality of the LKPD teaching material for eighth-grade students was determined by analyzing questionnaire data collected from both students and the teacher. The results of the practicality analysis are shown in Table 4.2.

**Table 4.2**

**Recapitulation of Practicality Analysis Results**

<b>Evaluator</b>	<b>Percentage</b>	<b>Criteria</b>
Grade VIII teacher	92%	Very practical
One-to-one trial	80%	Practical
Small group trial	78.33%	Practical
<b>Average</b>	<b>83.44%</b>	<b>Very practical</b>

Based on Table 4.2, the teacher's assessment reached 92%, the one-to-one trial obtained 80%, and the small group trial reached 78.33%. Overall, the practicality test

achieved an average percentage of 83.44%, which falls under the **very practical** category. Therefore, it can be concluded that the LKPD teaching material is practical for use in the learning process.

Furthermore, an effectiveness test was conducted involving 20 eighth-grade students. The effectiveness test aimed to measure the impact of the LKPD media through two stages: **pretest and posttest**, consisting of 20 multiple-choice questions. Students were considered to have achieved mastery if they obtained a score higher than the Minimum Mastery Criterion (KKTP) of 70. The pretest was administered before learning activities, while the posttest was given after learning using the LKPD was completed.

The results showed that the average pretest score was 34.75, while the average posttest score increased to 82.75. The detailed results are presented in Table 4.3.

**Table**

**4.3**

**Effectiveness Test Results**

No	Student	Pretest	Posttest
1	S-1	20	80
2	S-2	30	85
3	S-3	60	100
4	S-4	35	85
5	S-5	15	80
6	S-6	15	70
7	S-7	40	80
8	S-8	45	85
9	S-9	30	75
10	S-10	35	80
11	S-11	20	90
12	S-12	45	95
13	S-13	35	80
14	S-14	60	100
15	S-15	15	75
16	S-16	60	100
17	S-17	45	80
18	S-18	35	70
19	S-19	25	75
20	S-20	30	80
Total		695	1655
Average		34.75	82.75

To further examine effectiveness, the results were analyzed using the **N-Gain formula**. The summary of the effectiveness test is presented in Table 4.4.

**Table 4.4**

**Summary of Effectiveness Test Results**

<b>Number of Students</b>	<b>Mean Pretest</b>	<b>Mean Posttest</b>	<b>N-Gain Score</b>	<b>Effectiveness Category</b>
20	34.75	82.75	0.73	High

Based on Table 4.4, the N-Gain score obtained was 0.73, which falls into the **high effectiveness category** ( $g > 0.70$ ). Therefore, it can be concluded that the LKPD teaching material is **effective** for use in the learning process of basic volleyball service techniques for eighth-grade students.

**DISCUSSION**

the validation results from three experts indicate that the lkpd on basic service techniques in volleyball for eighth-grade students of smp negeri napallicin has a very high level of validity. the material expert gave a score of 0.90, the language expert 0.92, and the media expert 0.90, with an overall average score of 0.90. these results show that the lkpd is classified as very valid and suitable for use in the learning process based on aiken’s v analysis. this finding is supported by the study of rifki affendi, herpratiwi, and sugeng sutiarto (2021), which also concluded that lkpd developed for basic volleyball service techniques is valid for instructional use.

in addition to validity, the practicality of the lkpd was evaluated through responses from both teachers and students, yielding satisfactory results. the practicality percentage from the teacher reached 92%, the one-to-one trial achieved 80%, and the small group trial reached 78.33%, with an overall average of 83.44%, which falls into the very practical category. these findings are consistent with the study conducted by septiana andeswari, dudung amir sholeh, and linda zakiyah (2022), which reported that lkpd for basic volleyball service techniques is practical and easy for students to use.

following the validation process, revisions were made based on the experts’ suggestions. the material expert stated that the lkpd could be used after revisions, the language expert recommended improvements to numbering and sentence structure in

the questions, and the media expert provided feedback on the question session layout. based on these results, the developed lkpd is considered very valid, very practical, and effective for improving learning outcomes in basic volleyball service techniques.

## CONCLUSION

based on the results of the research and development of the lkpd conducted in the learning of basic volleyball service techniques for eighth-grade students at smp negeri napallicin, the following conclusions can be drawn:

1. validity

the validity test of the lkpd on basic volleyball service techniques for eighth-grade students shows that it meets the validity criteria. the media expert provided a score of 0.90, the language expert 0.92, and the material expert 0.90, resulting in an average score of 0.90, which falls under the very valid category. therefore, the lkpd is appropriate for trial implementation in the learning process.

2. practicality

the practicality of the lkpd was determined through teacher responses and one-to-one and small group trials. the teacher's practicality score reached 92% (very practical), the one-to-one trial achieved 80% (practical), and the small group trial reached 78.33% (practical). the overall average practicality score was 83.44%, which is categorized as very practical. thus, the lkpd meets the practicality criteria and is suitable for use in learning activities.

3. effectiveness

the effectiveness of the lkpd was tested through a large group trial using pretest and posttest instruments administered to 20 eighth-grade students. the average pretest score was 34.75, while the average posttest score increased to 82.75. the calculated n-gain score was 0.73, which falls into the high effectiveness category ( $g > 0.70$ ). therefore, the lkpd is effective in improving students' learning outcomes in basic volleyball service techniques.

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