



Developing Mystery Box Vocabulary (MBV) Media Based on the Problem-Based Learning Model to Increase the Mastery of Vocabulary of Various Objects in Primary School

(Pengembangan Media Mystery Box Vocabulary (MBV) Berbasis Model Problem Based Learning untuk Meningkatkan Penguasaan Kosakata Keragaman Benda di Sekolah Dasar)

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Abstract: This research was motivated by students' need for more vocabulary mastery due to media and models that did not attract students' interest in learning, coupled with teachers' teaching models that still used the lecture method. This research is development research using the Research and Development model, including eight stages. This development research aims to test the feasibility and effectiveness of mystery box vocabulary media based on a problem-based learning model. The data collection methods used were observation, interviews and teacher and student needs questionnaires, pre-posttests, media and material validation sheets for media experts and material experts, as well as teacher and student response questionnaires regarding the suitability of the mystery box vocabulary media. The results of this study show that the average value. The media validity test obtained was 85% with very decent qualifications and material validity was 96% with very decent qualifications. The results of trials using large groups showed an increase in student learning outcomes with an average N-Gain of 0.826 and significance (2-tailed) < 0.05. Based on this analysis, it can be concluded that the mystery box vocabulary media based on the problem-based learning model developed on material for mastering the vocabulary of various objects is declared suitable and effective for use in class II at SDN 3 Jepon, Blora.

Keywords

development, mystery box vocabulary, problem-based learning, vocabulary

Abstrak: Penelitian ini dilatarbelakangi oleh kurangnya penguasaan kosakata siswa akibat media dan model yang kurang menarik minat belajar siswa ditambah lagi dengan model pengajaran guru yang masih menggunakan metode ceramah. Penelitian ini merupakan penelitian pengembangan dengan menggunakan model Research and Development, delapan tahap. Tujuan penelitian pengembangan ini adalah untuk menguji kelayakan dan keefektifan media kosakata kotak misteri berbasis model problem based learning. Metode pengumpulan data yang digunakan adalah observasi, wawancara dan angket kebutuhan guru dan siswa, pre-posttes, lembar validasi media dan materi untuk ahli media dan ahli materi, serta angket respon guru dan siswa mengenai kesesuaian media kosakata kotak misteri. Hasil penelitian ini menunjukkan bahwa nilai rata-rata Uji validitas media yang diperoleh sebesar 85% dengan kualifikasi sangat layak dan validitas materi sebesar 96% dengan kualifikasi sangat layak. Hasil uji coba menggunakan kelompok besar menunjukkan adanya peningkatan hasil belajar siswa dengan rata-rata N-Gain sebesar 0,826 dan signifikansi (2-tailed) < 0,05. Berdasarkan analisis tersebut dapat disimpulkan bahwa media kosakata kotak misteri berbasis model problem based learning yang dikembangkan pada materi penguasaan kosakata berbagai benda dinyatakan layak dan efektif digunakan dalam pembelajaran di kelas II SDN 3 Jepon, Blora.

Kata Kunci

pengembangan, mystery box vocabulary, problem based learning, kosakata

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INTRODUCTION

Education plays a vital role in a country's development. Education is a process towards change (Mulyawati & Purnomo, 2021). Education is a form of development. The progress of a society can be measured through the level of progress in the quality education sector (Indriyani et al., 2019). Therefore, education needs high standards to support the development of human resources (Rahmi et al., 2019). All in all, a high level of literacy skill can be as a good indicator of high quality of human resources.

Thus, schools must instill literacy habits toward their students in the early stage because these skills have numerous benefits for their long-life learning. One significant benefit is to improve students' vocabulary understanding (Harahap, 2022). This means that vocabulary knowledge is crucial to increase students' linguistic richness so they can create effective dialogue and communicate well. The importance of vocabulary can be seen in Jureynolds' statement, which states that vocabulary competence is crucial for language learning. People who learn a language without vocabulary have nothing to say, whereas those who study a language without grammar cannot express themselves clearly. To increase students' vocabulary collections, teachers were trying to make other effective teaching media because there are limited textbooks to support vocabulary learning (Jureynolds et al., 2021; Jeduit & Helmon, 2021).

Prior to this research, the researcher conducted a preliminary analysis. Based on interviews with class II teachers at SDN 3 Jepon Blora, students' interest in reading still needs to be higher, so their literacy skills still need to improve. This causes a lack of students' vocabulary knowledge. The teacher explains the difficulties of applying KD 3.2 knowledge, namely explaining vocabulary and concepts about various objects based on their shape and form in Indonesian. These problems are mainly found in indicators, which include correctly stating the content of new vocabulary in short texts, correctly explaining the meaning of vocabulary related to various objects based on their shape and form, and correctly describing new vocabulary acquired regarding various objects.

These indicators show that most students have not achieved the maximum score or surpassed the school's KKM (Minimum Completeness Criteria) standard. This is evident from the average PAS (Final Semester Assessment) score in semester 1. Out of 28 students, only 5 students were in the passing grade category, and 23 other students still had not achieved the passing grade. This means that only 17.85% of students have completed their grades, while 82.14% of students are still far below the KKM. The school determined a KKM score of 75, but students only achieved an average score of 56.29. This means that students have not been able to master Indonesian language subjects, even though learning Indonesian is very important in everyday communication.

Considering that language learning at school aims to improve communication skills and appropriate language skills, one of the elements that supports achieving this is mastery of a variety of vocabulary (Magdalena et al., 2021). People often assume that children have mastered Indonesian vocabulary naturally because it occurs naturally in everyday interactions. This situation impacts the lack of focus on learning Indonesian vocabulary, especially at the elementary school level (Mumpuni & Supriyanto 2020).

In a body of literature, vocabulary defines as a whole series of words or a collection of vocabulary or expressions often used to refer to certain concepts found in a person's language or in a particular environment (Ramadhania & Yamin, 2022). To enhance students' vocabulary knowledge, they must continuously practice while learning vocabulary in Indonesian. So, in learning vocabulary mastery, teachers must choose the suitable medium (Sari et al., 2021). The use of media helps students better understand the material. The learning process will be more effective and successful if educators create learning media that suits the material (Hasan et al., 2021; Momang, 2021; Mujianto & Pangesti, 2019).

Learning media significantly influences the development of students' cognitive capacities within the psychological learning environment. Learning media serves as a tool to communicate messages (learning content) and pique students' interest, attention, and feelings during the learning process, thereby achieving learning objectives (Atmazaki et al., 2021; Surya, 2017; Noviyanti et al.,

2023; Lazuardi & Hamzah, 2023). Meanwhile, learning media is something related to the use of genuine objects and visual pictures that are utilized for learning and passed on to understudies (Hadza et al., 2020). Psychology-based educational tools such as learning media facilitate students' learning processes because they are able to explain concepts more effectively. Therefore, the teacher's role is vital in directing their creative ideas to create learning media that make it easier for students to understand the material (Supriyono et al., 2018). Teachers' ability to organize the learning process has a greater influence on its success (Yastiari, 2019). According to Piaget's theory, educators should assist students to develop concrete tools to capture students' attention. Thus, simple and meaningful media can be used to explain the material to students (Destrinelli et al., 2018).

Furthermore, learning media makes it easier for students to understand the material. For teachers, learning media can help explain or improve student material delivery (Hidayati et al., 2023). They are learning media functions to convey learning messages and information. Using well-organized learning media will support students in processing and understanding lesson material (Septiasari & Sumaryanti, 2022). Learning media can be used to accomplish learning objectives because messages can be targeted to pique students' curiosity, focus, and attention. They can also enhance the teaching and learning process by enabling independent learning, removing time constraints, and reducing the amount of time spent on prior knowledge acquisition (Iriane et al., 2022). Aghni stated that learning media is not just a complement to the learning process but also a factor that impacts the success of the instruction and learning preparation within the classroom (Aghni 2018).

Students in class II at SDN 3 are learning Indonesian language content. Learning in Jepun Blora predominantly relies on the lecture method, employing a direct learning model that solely relies on the teacher's and the student's books as guides. This causes students to feel bored and learn, which becomes less attractive. As a result, learning effectiveness decreases, and students tend to be inactive in the learning process. In fact, we should view students not only as recipients of information but also as subjects who can actively seek, process, build, and apply their knowledge (Yusita et al., 2021). Mayasari believes that in the learning process at school, students listen to teacher lectures and participate in discussion activities (Mayasari et al., 2022). Recently, in the Indonesian language learning process, it has been seen that teachers tend to adopt fewer learning methods and models. Therefore, one of the factors causing low student learning outcomes is that many teachers still adopted conventional approach (Anggreni, 2019). Those condition will lead students to have lack of effective learning process. Meanwhile, students must develop their abilities to be more active and innovative when participating in learning activities (Boysen et al., 2022). To resolve those learning problems, educators or teachers must shift the learning paradigm from teacher-centered to student-centered (Permatasari et al., 2019).

One of the causes of the success of the learning process is the teacher preparation factor (Saputra et al., 2022). Teachers can achieve learning goals using innovative learning models while creating an enjoyable learning experience (Angraini et al., 2019). New learning models must follow developments in learning media. The learning model assists teachers in implementing teaching materials that need to be delivered to students (Iriane et al., 2022). The problem-based learning model is a learning model that can meet students' learning needs. This model aims to develop students' cognitive, affective, and psychomotor abilities (Ndiung et al., 2021). A model is a method for systematically carrying out a task or activity based on facts and concepts. In the context of problem-based learning (PBL), the learning model refers to the approach teachers use to present learning material efficiently and structuredly to students. The problem-based learning model is a cooperative learning model that encourages students to participate in the learning process (Djonomiarjo, 2020).

Based on this background, researchers were in attempt to provide alternative solutions to the problem by the needs of teachers and students to increase students' knowledge of vocabulary mastery by developing Indonesian language subject media, especially material for increasing vocabulary knowledge by conducting research entitled "Developing Mystery Box Vocabulary (MBV) Media Based on the Problem-Based Learning Model to Increase the Mastery of Vocabulary of Various Objects in Primary School". Further, this R&D design aims to helps studentsmaking students more enthusiastic

about participating in learning and making learning activities more exciting and enjoyable in order to increase students' understanding of subjects and the learning material.

This research, based on relevant previous research such as the use of media in the form of mystery boxes carried out by [Pertiwi et al., \(2022\)](#), shows that by utilizing the mystery box media, there was an increase in understudy learning results from pre-action to cycle II by 55.56%. Indeed, even though it is pertinent, this inquiry is diverse since the inquiry conducted by Pertiwi employs the part-playing strategy and is connected to science learning substance. Furthermore, research conducted by [Wibowo & Pradana \(2022\)](#) found that the use of the contextual teaching and learning (CTL) method with the help of mystery box learning media (KOMIS) has been able to increase students' interest in learning in class 2 of SD Negeri 1 Mergosono Malang. This study employs the Classroom Action Research method, which is based on Kemmis and Taggart's theory. The results of two different cycles of research demonstrate this increase. In cycle I, the average interest in learning for class 2 students was around 81.81%. Meanwhile, in cycle II, class 2 students' average interest in learning increased to approximately 95.45%.

Additionally, [Mumpuni & Supriyanto \(2020\)](#) conducted similar study. The hypothesis test results, which yielded a significance (2-tailed) of 0.034, lower than 0.05, demonstrated the product's effectiveness in enhancing Indonesian vocabulary mastery. This demonstrates that using media effectively improves Indonesian vocabulary skills in elementary school students. The next research is conducted by [Wahyuni et al., \(2021\)](#). The research results show that the average learning achievement for Indonesian language lesson content in cycle I is 63.64, with the level of achievement considered low. In any case, in cycle II, learning accomplishment expanded to 75.9 with the level of learning accomplishment within the medium category. Hence, it can be concluded that the application of the PBL learning demonstrate is able to move forward the learning results of Indonesian dialect lesson substance for third-grade basic school understudies.

In the same vein, research conducted by [Saputra & Susilowati \(2021\)](#) regarding the application of problem-based learning showed that in cycle I, there was an increase in learning accomplishment in a few topical subjects, but not science. In cycle II, there was an increase in learning accomplishment in all topical subjects. In the mean time, in cycle III, there was an increase in learning accomplishment in a few subjects, such as Indonesian, PKN, and Social Sciences, with an increment of 100%. In the meantime, in science subjects, there was an increase of 90%, and in SBdP subjects, there was an increase of 95%. Based on the question, it can be concluded that the utilization of problem-based learning (PBL) can move forward the topical learning achievement of course IV understudies at SD Negeri Srirahayu.

To the best of the researcher's knowledge, this study's originality lies in developing mystery box vocabulary media using a previously unheard-of problem-based learning methodology. The evolution of this medium involves terminology related to the diversity of objects, particularly in Indonesian language courses. This study investigates the viability and efficacy of using vocabulary mystery boxes based on the problem-based learning methodology. The degree to which this medium is appropriate will significantly impact its efficacy since it will serve as a yardstick for determining whether or not it can be produced and used by students in educational activities. Additionally, it is critical to determine how well the media is working to improve student understanding.

The difference between this research and previous research is the discovery of the Mystery Box Vocabulary (MBV) media, which is explicitly used for Indonesian language subjects in the material of mastering the vocabulary of various objects, and its application is combined with a problem-based learning model so that learning is obtained. Activities are centred on students so they are more active in participating. This design might lead to different result. This research contributes to increasing vocabulary mastery of diversity material in class II Indonesian language subjects. Apart from that, the use of a student-centered learning model is able to make students understand the material and use of learning media, apart from increasing students' enthusiasm for learning, it can also help teachers convey learning objectives so that learning goals can be achieved delivered well.

METHOD

This research aims in developing Mystery Box Vocabulary (MBV) media based on a problem-based learning model based on material describing the vocabulary of various objects for class II students at SDN 3 Jepon Blora. This research employed the Research and Development (R&D) method. According to Borg and Gall, the R&D research method, which stands for Research and Development, is a research approach used to verify and develop existing products (Sugiyono 2019). In line with that, Sugiyono has modified the R&D research method to incorporate the following 10 steps: (1) potential and problems; (2) data collection; (3) product design; (4) design validation; (5) design revision; (6) product testing; (7) product revision; (8) trial use; (9) revision of use; (10) mass production. Due to time and cost limitations, researchers limited the steps or stages in the R&D method to eight, which ended with using trials.

At the data collection stage, researchers identified various types of information, such as teacher and student needs questionnaires, which will later be used to develop a product. At that point, the information obtained is analyzed to determine the rate of interest in the possibility of the item being created. The instrument utilized was an approval survey for fabric specialists, media specialists, and clients (instructors and understudies). Another instrument was utilized to test the legitimacy of the media so that it can be announced as attainable. Further details as follows.

Table 1
Instrument Grid for the Development of Mystery Box Vocabulary (MBV) Learning Media Based on the Problem-Based Learning Model

Variable	Indicator	Data source	Instrument
The Mystery Box Vocabulary (MBV) learning medium is based on a problem-based learning model based on material describing the vocabulary of various objects.	Carry out assessments of learning media designs by material experts	Material expert	Material validity test questionnaire
	Carry out assessments of learning media designs by media experts	Media expert	Media validity test questionnaire
	Evaluation of learning media designs by teachers	Class II Teacher at SDN 3 Jepon	Teacher response questionnaire
	Testing the Effectiveness of Mystery Box Vocabulary (MBV) Based on the Problem Based Learning Model in Class II of SDN 3 Jepon	Class II students at SDN 3 Japan	Written test

Media expert validators and material experts tested the mystery box vocabulary's media content validity using a feasibility questionnaire.

Eligibility can be tested with the formula:

$$P = \frac{f}{n} \times 100$$

With the information, P is the percentage value of eligibility, f is the respondent's score, and n is the maximum score of the instrument. Data resulting from expert validation percentages are then interpreted according to the following standards.

Table 2
Expert Validation Eligibility Criteria

No	Eligibility criteria	Information
1	81% - 100%	Very worthy
2	61% - 80%	Worthy
3	41% - 60%	Not feasible
4	21% - 40%	Not feasible
5	0% - 20%	Not very valuable

Source: Rosyidah et al., (2019)

Media eligibility can be declared valid if it meets the eligibility standards in percentages ranging from 61% to 100%. Following the validation of the design, the next step involves revising the product. Revision activities are improvements to weaknesses in products that have been created; based on evaluation results, resulting in weaknesses, the product can be repaired (Zukhruf et al., 2023). We carry out item corrections based on proposals and input from media specialists. These advancements must, of course, be custom-fitted to your needs. Another step is to test the item. Item trials were carried out in exploratory classes, where few gather trials utilized a purposive test procedure totaling six understudies. Of the 28 investigated subjects, the analysts took 6 understudies with moo, medium, and tall levels of capacity. In this trial, the test and lesson instructors were given reaction surveys with respect to the use of Mystery Box Vocabulary (MBV) media.

Table 3
Teacher and Student Response Questionnaire Box to
Mystery Box Vocabulary (MBV) Learning Media

No	Criteria	Indicator	Question Number
1	Learning Media Results	Overall view of teaching materials	1,4,9
		Conformity to content	2
		Use of learning media	3
2	Uses of Learning Media	Use of learning media in teaching and learning activities	5, 6
		Use of learning media for students	7,8
		The impact of using learning media	10

After testing in experimental classes or small groups, researchers revised the product again. In this step, researchers made some product improvements based on the results of small group trials. This increase was guided by a questionnaire that had been filled out by the teacher and four students who were members of small groups after using the Mystery Box Vocabulary (MBV) media. The next stage is trial use. Products that have been improved and gone through small group trials are ready to be used for large group trials. In this case, the large group consists of the entire population of class II students at SDN 3 Jepon, totaling 28 students. We conduct trials by presenting initial test questions (pre-test) prior to the learning activities and subsequent test questions (post-test) following the learning activities.

RESULTS AND DISCUSSION

This research and development produced the Mystery Box Vocabulary (MBV) learning media product based on the problem-based learning model. This research uses the Research and Development, or R&D, method. In the first stage, researchers found problems such as students' lack of vocabulary mastery, as seen from the average final semester assessment (PAS) score of 56.29 compared to the KKM score of 75. Based on the results of interviews conducted with class II teachers at SDN 3 Jepon, the teacher explained in carrying out learning activities, especially in Indonesian language subjects, teachers do not use media to support understanding of the material, explaining vocabulary for various objects. Apart from that, the method used is a lecture method with a direct learning model, so that students feel bored and less enthusiastic about participating in learning activities.

After knowing the existing problems, at the data collection stage, a questionnaire was distributed to meet students' and teachers' needs so that researchers could determine the product to be developed.

Table 4
Results of the Student Needs Questionnaire Regarding Student Expectations

No	Indicator	Answer	Information
1	Students like Indonesian language lessons	() Yes✓ () No	20 students answered yes 71%

No	Indicator	Answer	Information
2	The material for mastering the vocabulary of various objects in Indonesian is difficult to understand	() Yes√ () No	24 students answered yes 85%
3	Indonesian language learning activities in class	() boring√ () pleasant	23 students answered boring 82%
4	Students like to use learning media	() Yes√ () NO	28 students answered yes 100%
5	Color display of the media you want to use	(√) full color () one color theme	25 students chose colors 89%
6	The media is in the form of PDF electronic reading books or real objects	() pdf/electronic reading book () real objects√	23 students chose other objects 82%
7	Media can be used in groups	() Yes√ () NO	21 students answered yes 75%

According to the results of interviews conducted with class teachers, 85% of students considered the material on student vocabulary mastery to be difficult to understand, and 100% of students wanted learning media because learning activities were considered boring, especially in Indonesian language subjects. In choosing the media to use, 82% of students want real objects as learning media with varied learning models to support learning activities. Using real media that students can see and touch is likely to enhance their understanding of discussed concepts or material (Rosyidah et al., 2019).

Product design is the next step. Products are developed in response to problems identified, student data collection, observations made through teacher interviews with researchers, and needs questionnaires tailored to the requirements of both teachers and students. In an attempt to offer an alternative, researchers have created a product that takes the shape of a real object, such as a box, and contains information on the language of different objects. This product employed a problem-based learning approach. Based on the framework of PBL adapted from Syahbana et al., (2023), the learning process begins with identifying the problem, followed by student discussion to match their understanding of the problem, and then planning the goals and objectives that must be achieved. Other stages of PBL then involve searching for sources of information from various sources, such as libraries, the internet, and observation. Teachers not only assess student learning outcomes, but also the learning process they undergo. In this context, the teacher's role is to monitor student learning progress toward achieving learning goals. Aside from that, teachers also have the responsibility to guide students in solving the given problems so that they remain in the correct position.

In this research, the product is called Mystery Box Vocabulary (MBV) and is based on the problem-based learning model to improve vocabulary mastery of various objects in class II students at SDN 3 Jepon Blora. It was expected that the development of this product will prove feasible and effective in enhancing students' vocabulary mastery of various objects studied, leading to more satisfying learning outcomes. When creating media, of course, the researchers need a validator to measure the suitability of the media created by the researcher. The details were explained as follows.

Table 5
Media Appropriateness Questionnaire Instrument Grid

No	Aspect	Indicator	Question Number
1	Media (Yusnidah, 2022)	<i>Can be seen</i> (easy to see)	1
		<i>Interesting</i> (interesting)	2
		<i>Simple</i> (simplicity)	3
		<i>Useful</i> (utility)	4
		<i>Appropriate</i> (truth and accuracy of targets)	5
		<i>Legitimate</i> (logical)	6

No	Aspect	Indicator	Question Number
		<i>Structure(collapse)</i>	7
		Interesting title	8
		Color harmony	9, 10
2	Cover View	Font type	11, 12
		Image illustration	13
		Layout composition	14
		Match the cover to the contents	15
		Content display design	16, 17
3	Content View	Illustration	18, 19
		Font type	20, 21
		Color selection	22
		Layout	23, 24, 25, 26
4	Use	Ease of use	27, 28
		Durability of use	29
		All components	30

Table 6
Material Feasibility Questionnaire Instrument Grid

No	Aspect	Indicator	Question Number
		Suitability of Basic Competencies (KD)	1
		Suitability to student development	2
		Depth of material	3
		Suitability of image selection with material	4
		Material completeness	5
1	Content eligibility	Suitability of material with teaching materials	6
		Presentation of material	7
		Useful in increasing insight	8
		Suitability of text examples to the material	9
		Suitability of questions to learning indicators	10
		Latest sources	11
		Language selection	12
2	Presentation	Use of standard language	13
		Clarity of information	14
		Presentation equipment	15

There are two validator experts who can provide media suitability assessments: media validation experts by media expert lecturers and material validation experts by material expert lecturers. The following Table 7 provides a summary of the media feasibility assessment results.

Table 7
Recapitulation of Media Feasibility Assessment Results

Evaluator	Component	Mark Obtained	Percentage	Information
Validator Material	Language and Material	58 of 60	96%	Very Worthy
Validator Media	Design Feasibility Media	102from 120	85%	Very Valuable

The media feasibility results show that the media created by the researcher meets the criteria and is very suitable in terms of language and material components, as well as media design, with suggestions and input from validator lecturers. So, researchers can enter the next stage, namely design revision. The design that has been created is then revised again based on suggestions and input from validation experts.

Table 8
Revision of Mystery Box Vocabulary (MBV) Media Products Based on the Problem Based Learning Model

Evaluator	Suggestions and Feedback	Before Revision	After Revision
Material Validator	In each image or illustration, you should include the source from which the image was taken	Each image does not include the source of the image taken	Each image has a source where the image was taken
	The word "in" must be written separately because the question indicates the word place	Before revision, questions on written media "Paste your answer here!"	After revision, the media question read "Paste your answer here!"
Media Validator	The media material from HVS paper should be replaced with paper for stickers	The paper on the media only uses HVS paper which is attached to the media	Replaced with sticker paper so it sticks easily and the colors look more attractive
	The cardboard media material was replaced with a stronger material	The media box uses light cardboard	Replaced by using standard wooden boards which are stronger but still light

The results of the changes after product revisions were carried out by material experts and media experts, then applied to improvements in the physical form of the media so that the Mystery Box Vocabulary (MBV) media based on the problem-based learning model could be tested on a small scale. A group of class II students from SDN 3 Jepon Blora participated in the testing process. The following is a display of the Mystery Box Vocabulary (MBV) media based on the problem-based learning model.



Figure 1
Mystery Box Vocabulary (MBV) Media Display

After the material validator and media validator revision stages, the next stage is trial use. The use trial was carried out by testing in small groups by giving pre-test and post-test questions to see whether there was an improvement if students received trial treatment of mystery box vocabulary media based on problem-based learning. We conducted small group trials on six class II students at SDN 3 Jepon, each with varying ability criteria: two students demonstrated low ability, two demonstrated medium ability, and two demonstrated high ability. After testing, you get results like the following.

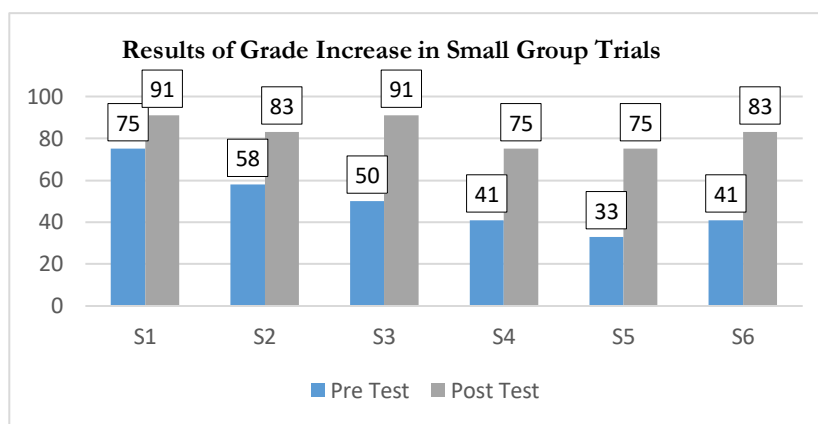


Figure 2
Results of Grade Increase in Small Group Trials

From the chart over, the least pre-test score is 33, and the most noteworthy pre-test score is 75, with a normal score of 49.6. After testing the treatment and carrying out a post-test, the least score was 75, and the most noteworthy score was 91, with a normal score of 83. This implies that there was an increment of 67.34% in the utilization trial. go out in little bunches. At that point, understudies who have received treatment are given a reaction survey to assess the reasonableness of the media that will be tested in large groups. Separated from understudies, instructors also have the right to fill out media-appropriate reaction surveys. Understudy and instructor response questionnaires can be seen within the taking after Table 9.

Table 9
Results of Student Response Questionnaire Regarding
Mystery Box Vocabulary (MBV) Learning Media

Number	Student					
	S1	S2	S3	S4	S5	S6
Total score	36	35	31	36	36	37
Percentage	90%	87.50%	78%	90%	90%	92.50%
Information	dialect	L	L	dialect	dialect	dialect
Average	88%					

The Table 9 displays the average score of 88% for the six students that answered the questionnaire. This indicates that conducting large-scale group trials is highly feasible, provided the eligibility requirements are met. Teachers have the same right to respond to questionnaires on media suitability as students do. The following Table 10 displays the questionnaires with responses from teachers and students.



Table 10
Teacher Response Questionnaire Results Regarding
Mystery Box Vocabulary (MBV) Learning Media

No	Question	Choice			
		1	2	3	4
1	The overall appearance of the mystery box vocabulary learning media can be interesting and arouse students' curiosities in learning activities				√
2	The mystery box vocabulary learning media is in accordance with core competencies, basic competencies and indicators of competency achievement				√
3	The mystery box vocabulary learning media is easy to use and appropriate to the developmental level of elementary school age students				√
4	The mystery box vocabulary learning media is presented with varied displays and is also able to attract students' attention and interest				√
5	Mystery box vocabulary learning media can increase student activity during learning activities				√

No	Question	Choice			
		1	2	3	4
6	By using the mystery box vocabulary learning media, it makes it easier to explain the vocabulary of various objects to students			√	
7	Mystery box vocabulary learning media can increase students' learning motivation			√	
8	The use of mystery box vocabulary learning media is easy to understand				√
9	The number of sides of the box is the same				√
10	The mystery box vocabulary learning media is considered capable of improving student learning outcomes				√
Percentage: 92.5%					

Based on student and educator reaction information, the Mystery Box Vocabulary Media based on problem-based learning show is appropriate for testing on a huge scale, with the proposal of including subtitles on the media cover. Following, the analysts entered the item amendment organization after conducting little bunch trials. Item modifications can be seen within the take-after Table 11.

Table 11
Revision Results Based on Teacher and Student Suggestions

Evaluator	Suggestions and Feedback	Before Revision	After Revision
Teachers and students	It is best to add subtitles under the media name on the cover		

Based on this information, it is known that the evaluation carried out by material specialists, media specialists, instructors, and understudies indicate that the puzzle box lexicon based on the issue-based learning demonstrated is reasonable for testing on a huge scale.

The next stage is trial use. The research subjects for this trial were carried out in a large group, namely class II students at SDN 3 Jepon, totaling 22 students. Likewise, in the small group test, the researcher gave pre-test questions and post-test questions. A recapitulation of the results of large-group student trials is as follows.

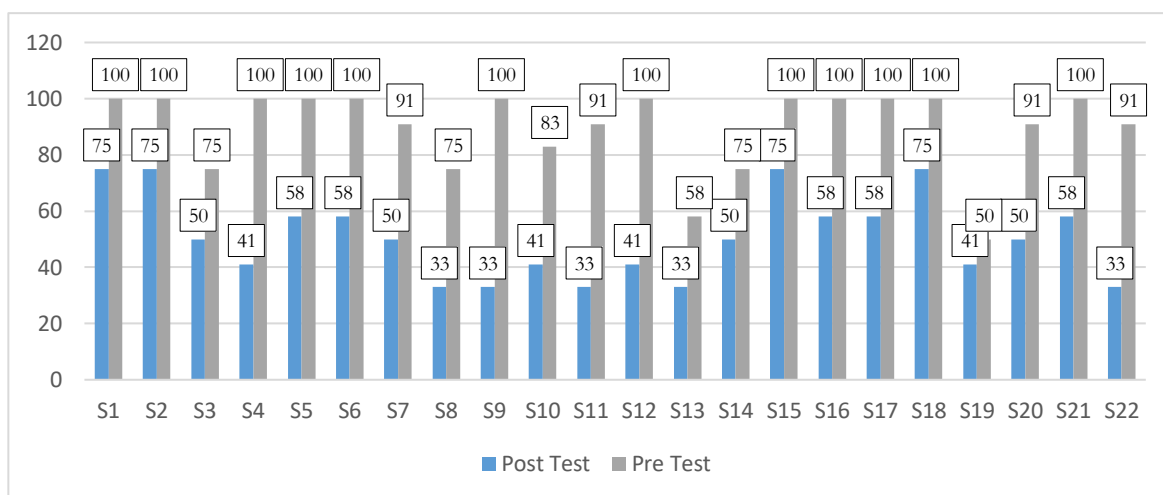


Figure 3
Improved Results of Usage Trials in Large Groups

Figure 3 shows the increase in the results of media use trials in large groups. There is a significant increase shown by the green diagram (pre-test), which is higher than the blue diagram (post-test). After testing the use of data, it showed that there was an improvement after treatment using the Mystery Box vocabulary media based on the problem-based learning model. Data calculation analysis was calculated using the N-Gain formula.

$$N\text{-Gain} = \frac{\text{skor post test} - \text{skor pre test}}{\text{skor maksimal} - \text{skor pre test}}$$

Once the calculations are complete, we conduct an analysis using the assessment criteria listed in the following Table 12.

Table 12
Assessment Criteria

N-Gain Intervals	Criteria
N-gain $g > 0.7$	Tall
$0.3 < \text{N-gain} < 0.7$	At the moment
N-gain < 0.3	Low

The collected data is then calculated based on the N-Gain formula and t test so that the final results of the data calculation are as follows.

Table 13
Product Effectiveness Test Results

No	Test Subjects	Pre-test	Post test	N-Profif	Signature. (2-tail)
1	Small Group Trials	49.6	83	0.661	0.301
2	Large Group Trials	50.86	90	0.828	0,000

As seen in Table 13, the results of calculations utilizing the N-Gain equation in trials utilizing the Myster Box Vocabulary Media based on the issue-based learning demonstrated are included within the criteria for tall enhancement. These were too demonstrated through adequacy tests on expansive bunches, which created sig. (2-tailed).

In line with the research conducted by Mumpuni & Supriyanto (2020), the use of learning media is exceptionally successful in making strides in understudy learning results. This can be understood by the statement of Destrinelli et al., (2018) that by utilizing genuine objects as learning media, understudies can be specifically included in investigations and tests, empowering their inclusion to be more dynamic and imaginative. The use of media makes a difference in progressing their

understanding of concepts and learning results in understanding the necessities of appropriate educational programs. The findings of this inquiry are in agreement with the findings of Wibowo & Pradana (2022). Their research highlighted that the use of mystery box media can increase students' interest in learning so that understudies can better get it and ace the fabric through the media utilized.

CONCLUSION

Based on the findings, it can be concluded that the Secret Box lexicon media based on the issue-based learning show in an effort to extend the lexicon authority of different objects in lesson II at SDN 3 Jepon Blora has exceptionally great possibilities. The results of the investigation indicate that the normal approval score for media specialists is 85%, teaching material specialists are 96%, and teacher responses are 92%. Within the trial, there was an increase in understudy learning results with importance (2-tailed) < 0.05. It appears that the targets of the advancement investigation have been accomplished, specifically that the media created is suitable and viable for use. The media created within the frame of Mystery Box Vocabulary (MBV) can make a positive commitment to the understudy learning handle since this media has special visuals when compared to other media. Puzzle box lexicon media is media that has the properties of genuine objects that can be seen and touched straightforwardly, and its utilization is in agreement with the sentence structure of the issue based learning model so that understudies can center more on understanding the fabric within the media. It is supported that the advancement of this medium can offer assistance to understudies in getting the fabric, particularly in clarifying the lexicon of different objects.

Based on the investigation discoveries that have been carried out, the recommendation that can be given is that understudies can apply the Mystery Box Vocabulary (MBV) media based on the issue-based learning show in learning exercises for Indonesian dialect subjects, particularly when managing with fabric around extending lexicon related to differences. The results of this inquiry can also be utilized as a reference by other analysts in comparable investigations related to distinctive subjects or materials.

DECLARATION

Author contributions	: In this study, Rizka Fitriana was responsible for all stages of the research, including planning, data collection, analysis, and drafting the article. Dr. Panca Dewi Purwati, M.Pd., and Dr. Trimurtini, S.Pd., M.Pd., as supervisors, provided crucial methodological direction and intellectual guidance. With their support, this research could be carried out well, and this journal article was prepared appropriately.
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