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Development of Osborn Learning Model Based on Critical Creative and Character on Santri Pancasila Profile

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Abstract*:* This study aims to develop a 3C-based Osborn learning model to improve critical thinking skills, creativity, and character in students in a boarding school environment. The method used in this research is development research using the stages; 1) problem identification, 2) prototype and 3) assessment. The subjects in this study were MTs Az-Zubair students, especially class VII students. Problem identification is carried out by conducting learning observations conducted by teacher who teaches math subjects. Learning tools in the form of lesson plans (LIP), observation sheets, questionnaire sheets and formative test questions are developed to improve the 3C competence of students. The resulting device can be said to be good if it meets the criteria of valid, practical, and effective. The validity of the device can be tested by expert assessment, the practicality of the product can be tested by applying the model in learning and the effectiveness of the product can be tested by using the students' learning outcomes in answering formative questions. Based on the results of the study, it can be concluded that the device developed is valid, practical, and effective and can improve the critical thinking skills, creativity, and character of students.

Kata Kunci:
Kreatif Kritis; Pembelajaran Osborn; Profil Pancasila

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Abstrak: *Penelitian ini bertujuan untuk mengembangkan model pembelajaran Osborn berbasis 3C untuk meningkatkan kemampuan berpikir kritis, kreativitas, dan karakter peserta didik di lingkungan pesantren. Metode yang digunakan dalam penelitian ini adalah penelitian pengembangan dengan menggunakan tahapan; 1) identifikasi masalah, 2) prototipe dan 3) penilaian. Subyek dalam penelitian ini adalah siswa MTs Az-Zubair khususnya siswa kelas VII. Identifikasi masalah dilakukan dengan melakukan observasi pembelajaran yang dilakukan oleh guru yang mengajar mata pelajaran matematika. Perangkat pembelajaran berupa RPP, lembar observasi, lembar angket dan soal tes formatif dikembangkan untuk meningkatkan kompetensi 3C siswa. Perangkat yang dihasilkan dapat dikatakan baik apabila memenuhi kriteria valid, praktis, dan efektif. Validitas perangkat dapat diuji dengan penilaian ahli, kepraktisan produk dapat diuji dengan penerapan model dalam pembelajaran dan efektivitas produk dapat diuji dengan menggunakan hasil belajar siswa dalam menjawab pertanyaan formatif. Berdasarkan hasil penelitian dapat disimpulkan bahwa perangkat yang dikembangkan valid, praktis, dan efektif serta dapat meningkatkan kemampuan berpikir kritis, kreativitas, dan karakter siswa.*

INTRODUCTION

The Osborn learning model is a learning model using brainstorming methods or techniques (Murtaqi; et al., 2019; Yusri Firdaus, 2020). The term brainstorming is perhaps the most frequently used term, but it is also the least understood technique. Brainstroming refers to the process of generating new ideas or the process of solving problems. Osborn's learning model is a learning model called the Creative Problem-Solving Process model (Tafrilyanto & Lanya, 2021). This model is a flexible tool that can be applied to examine real problems and issues. Real problems in daily life can be used as a medium to generate new ideas in learning.

Teachers as the spearhead of education in the field are required to be able to develop various methods and learning models so that learning is able to keep up with the times and make students more interested in learning the material presented by the teacher and have competence as expected (Lanya & Aini, 2019). Therefore, teachers must be able to develop learning models so that they can improve the competence of their students, especially mathematics teachers in a boarding school environment. The reality of existing education refers to Islamic education as a source of knowledge (insight), so that Islamic education can raise the moral image and arouse the fighting spirit of the community from pre- independence to post-independence. In the previous century, pesantren emerged as the oldest educational institution in Indonesia that fostered and developed the teachings of Islam. We can see this in the graduates of pesantren who are involved in the community as religious servants, many of whom become Kyai/Ulama, Muslim intellectuals, asatidz, scientists and so on (Athoillah & Wulan, 2019).

Islamic boarding schools are the oldest educational institutions as well as the guardians of the running of traditional Islamic education that has long been preserved in pesantren. The emergence of Islamic society in Indonesia is related to the process of Islamization, where the process of Islamization occurs through approaches and adjustments to pre-existing elements of belief, resulting in mixing or acculturation. The channel of Islamization consists of various ways, among others through trade, marriage, boarding schools and culture or art. As explained by Mastuhu, the main purpose of pesantren is to achieve wisdom or wisdom based on Islamic teachings which are intended to increase understanding of the meaning of life and the realization of social roles and responsibilities. The santri are expected to become wise people in their lives after becoming an 'Alim (master of knowledge, scholar) shalih (good, exemplary, straight, useful, and beneficial) and nasyir al'ilm (disseminator of Islamic knowledge)(Fikri & Syahrani, 2022; Utami & Jelita, 2021).

The last few years have revealed a long list of complaints about education in pesantren, all of which relate to the lack of assessment of pesantren, that pesantren are nothing but shelters for children who fail to continue their education in public schools, so they seem forced to enter education in pesantren. The community also rarely sends their children to pesantren with sincerity so that they can be formed into a society that is devoted to Allah SWT, on the grounds that the learning model in Islamic boarding schools is not able to produce graduates who can compete in the world of work. The pesantren world must also support the government's program on strengthening character through P5 (Pancasila Student Profile Strengthening Project). Therefore, the world of pesantren is considered to only be able to provide consumption of the afterlife, so people are reluctant to send their children to study at Pesantren.

The learning model in a boarding school environment can be resolved by developing a curriculum that is appropriate and harmonious with the objectives of national education. One of them is by developing a learning model that can improve the competence of students. The development of the 3C-based Osborn learning model (Critical, Creative and Character) in a boarding school environment is expected to improve the competence of students, especially the competence of critical reasoning, creativity, and character. This learning model is suitable for use in learning, especially in a boarding school environment to create the character of students who have Pancasila profiles.

Students who have this profile are santri who are fully developed in all six dimensions. These dimensions include: 1) Faithful, devoted to God Almighty and noble; 2) Independent; 3)

Mutual cooperation; 4) Global diversity; 5) Critical reasoning; 6) Creative. Critical reasoning implies that students can access information, build links between information, analyze, evaluate, and conclude. Creative implies that students can modify and produce something original, meaningful, useful and has a positive impact. Character implies that students have good character in accordance with the P5 dimension (Irawati et al., 2022; Navastara et al., 2020; Susilawati et al., 2021).

This research is important to do in developing critical, creative and character competencies of students in learning (research urgency). Previous research on the Osborn learning model; Munifah (2020) that learning by using the Osborn learning model can improve students' critical thinking skills. Murtaqi; et al., (2019); Soeviatulfitri & Kashardi, (2020) in their research also argue that there is an effect of applying the Osborn learning model on improving students' mathematical critical and creative thinking skills. Meanwhile, according to (Rowlett et al., 2019), there is an effect on students' mathematical problem-solving ability by applying the learning model with the Osborn method with mnemoic techniques through the theory of constructivism. The Osborn learning model is effectively used in mathematics learning to improve student learning outcomes (Lanya & Aini, 2019; Murtaqi; et al., 2019).

The Osborn learning model is a learning model called the Creative Problem-Solving Process model (Nurrahmah et al., 2019; Tama, 2020). This model is a flexible tool that can be applied to study real problems and issues. Learning using the Osborn learning model can improve students' critical thinking skills (Laghung, 2023). There is an influence of implementing the Osborn learning model on increasing students' mathematical creative thinking abilities(Soeviatulfitri & Kashardi, 2020). There is an influence on students' mathematical problem solving abilities by applying the Osborn method learning model with mnomoic techniques through constructivism theory (Hasan et al., 2020). Developed by “brainstorming” creator Alex Osborn, the six stages of this model are goal discovery, facts, problem solving, idea discovery, solution discovery and acceptance in this model presents a systematic procedure for identifying challenges, creating ideas, and implementing innovations. solution(Purnamasari & Riska, 2020; Yusri Firdaus, 2020). A teacher can apply a learning model by paying attention to several things, including student needs, student learning styles and assessment assessments. The Osborn learning model based on 3C (Critical, creative and Character) can help teachers create students who are critical, creative and have character according to the demands of the Pancasila student profile. Therefore, developing learning tools using the Osborn model is important to apply in the classroom so that it can produce students who are critical, creative and have character in learning mathematic.

METHOD

This research is a type of developmental research that aims to develop a product and describe the development process thoroughly then the resulting product is evaluated. The development of this research is a learning tool consisting of lesson plans, LW, learning media, and learning outcomes tests based on 3C (Critical, Creative and Character). The purpose of this study was to produce a learning tool with the Osborn teaching model based on 3C (Critical, Creative and Character) in a boarding school environment.

The subjects in this research were students of the Azzubair Islamic Boarding School who were studying at MTs Azzubair. The selection of these subjects was carried out randomly in class VIII to form the character profile of Pancasila in the Islamic boarding school environment with a total of 15 students.

The development of the model in this study followed the development phase proposed by (Plomp, Tjeerd & Nieveen, 2013; Wahyudi et al., 2019) namely: (1) problem identification and needs analysis, (2) prototype, (3) assessment. The developed product must meet the product quality criteria proposed by (Mery et al., 2022; Wahyudi et al., 2019). These criteria include: (1) validity, (2) practicality, and (3) effectiveness.

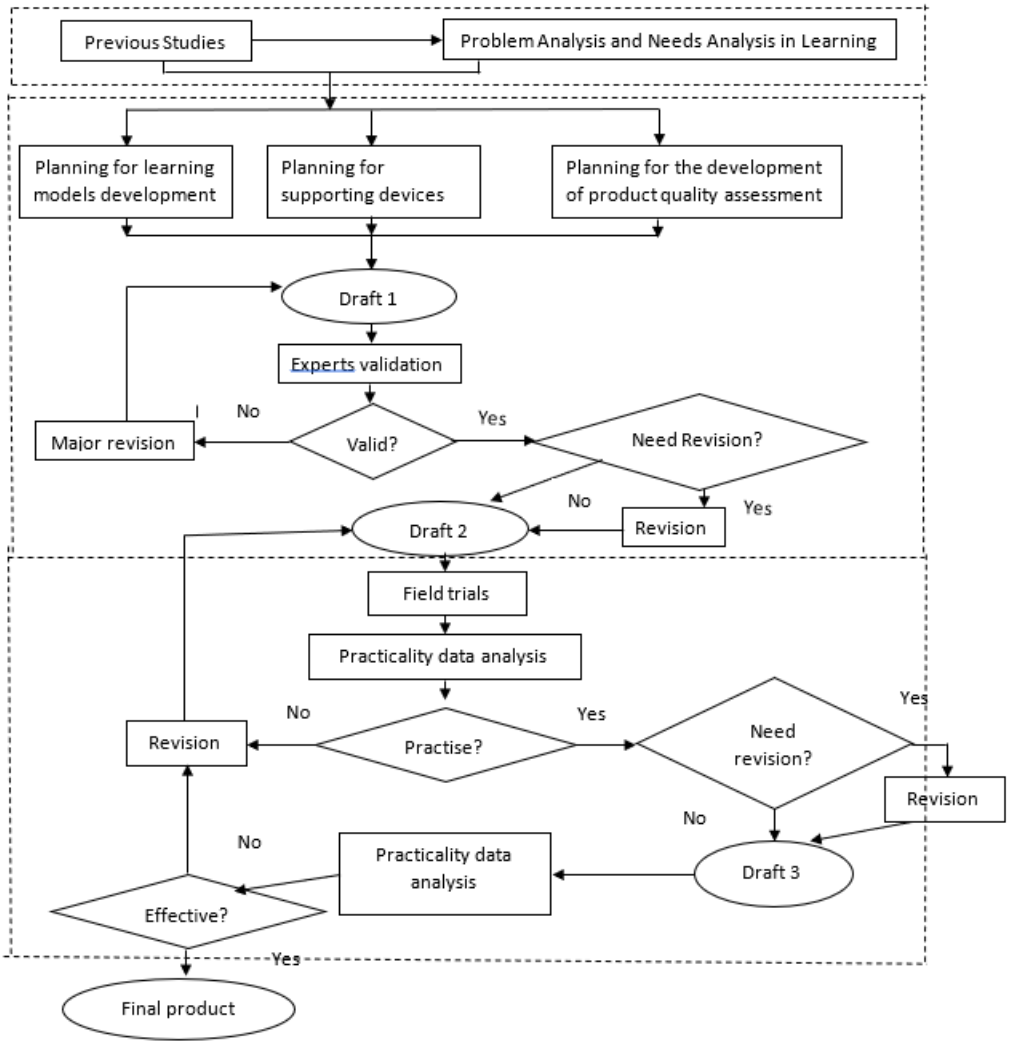

Figure 1. Flowchat Data Analysis

Literature studies and analysis of partner problems have been carried out by researchers because this development activity is a continuation of community service activities that have been carried out by the research team, validated by experts, namely one lecturer in the mathematics education study program, Madura University and one lecturer at Pattimura University, Ambon. The instrument (draft 1) has been prepared and trials will be carried out at MTs Az-Zubair with a total of 15 students. Furthermore, the implementation of the learning model was carried out at the Nurul Karomah Islamic Boarding School, Pademawu District for the same class level with a total of 15 students.

Practicality can be known by paying attention to the analysis of student response questionnaires in participating in mathematics learning. Meanwhile, effectiveness can be determined by paying attention to the analysis of the results of the formative questions given to 15 Nurul Karomah Junior High School students, Pademawu District.

Data collection techniques in this research are observation and giving tests. Observations aim to collect data about the character of students with a Pancasila profile during learning. Furthermore, giving tests aims to obtain data on student learning outcomes and learning completion. The tests given are in the form of essay questions and are done individually. Data analysis techniques in research are data analysis of the validity of learning tools, data analysis of

the practicality of learning tools, and data analysis of the effectiveness of learning tools. This research activity is said to be successful if it produces learning tools (LIP) that are valid, practical and effective. The effectiveness of learning tools is determined by the learning outcomes obtained by students. effective.

RESULT AND DISCUSSION

Problem Identification and Needs Analysis

The results of the identification and analysis of needs formulated are as follows. The Basic Competencies in this study are 1) Explain and perform arithmetic operations on whole numbers and broken numbers by utilizing various properties of operations. 2) Solve problems related to counting operations of whole numbers and fractions. The learning objectives formulated are 1) After going through literature study (Discourse) about whole numbers, learners communicate the operation of whole numbers (Literacy). 2) Through the results of data analysis, learners can write down known information and determine various solutions in problem solving (Discourse). (Numeracy). 3) Using the results of data analysis, learners can solve problems related to whole numbers. (Numeracy). 4) Through literature study of teaching materials, learners can describe daily problems about whole numbers. (Literacy).

Prototype

The purpose of this stage is to produce a draft of learning tools designed including Lesson Plan, Learner Worksheets, and formative tests with the 3C- based Osborn learning model (Critical, Creative and Character) in a boarding school environment.

a. Lesson Plan

The design of the lesson plan in this study contains the components of the name of the education unit, the name of the subject, the year of study, basic competencies, topics, time allocation, learning objectives, learning steps and assessment. The learning model used in this study uses Osborn's learning steps with the following steps: goal finding, fact finding, problem solving, idea finding, solution finding, and acceptance (Tafrilyanto & Lanya, 2021).

b. Learner Worksheet

This LW is designed with integer material by providing 2 different problems. Each problem requires students to answer questions with 6 question items. Questions are a tool for developing students' abilities (Zayyadi et al., 2022; Zayyadi & Lanya, 2023) ,so in learning it is necessary to ask questions that stimulate students' abilities. The following question items are 10 Give an explanation of the information in the problem, 2) What problems are faced in the problem, 3) How to solve the problem. 4) Write down in detail all solutions, 5) Write down the best solution, and 6) Write down clearly the solution to the problem. This LW must be done individually followed by a group discussion (Lauma et al., 2021; Putri & Firman, 2019)

c. Formative Test

Designing formative tests with the aim of finding out students' understanding of the material provided. Formative tests are used to determine students' understanding of the material presented in the lesson (Robbani et al., 2020). Before carrying out the formative test, students are given teaching materials to support students' understanding (Lanya et al., 2022; Munifah, 2020).

Assessment Learning Device Validation

The purpose of this stage is to produce a revised draft of mathematics learning tools based on expert input, readability tests, and data obtained from trial results.

a. Lesson Plan

The design results of the lesson plan that have been prepared have an average total validity value of 4.64. This shows that the lesson plan is valid by fulfilling the "Valid" category. The validity of teaching materials meets the valid criteria with the average validity score of the lesson

plan being 4.375 out of a maximum score of 5 with good qualifications (Suryaning, et al., 2021). Based on the assessments of the two validators, it can be concluded that this RPP is in the "Good" category and can be used with minor revisions. There were several suggestions from the validator regarding preliminary activities, detailed activity descriptions and time allocation in designing the lesson planing.

b. Learner Worksheet

The design results on the LW that have been prepared have a total average value of validity of 4.87. This shows that the lesson plan has been valid by fulfilling the "Valid" category. Based on the assessment of the two validators, it can be concluded that this LW has a "Good" category and can be used with minor revisions.

c. Formative Test

The Formative Test in this development has an average total validity of 4.33. This shows that the test questions have been valid with the category "valid". In addition, the assessment of the language and writing components of the formative test has been understood with the category "understandable".

Learning Device Practicality Assessment

The practicality assessment also aims to determine whether the learning tools developed can be implemented in the field based on the validator's assessment. The results of the practicality assessment of the learning tools developed, which include the Lesson Plan (LP), Learner Worksheet (LW), and Formative Test. The results of the practicality assessment of the lesson plan, LW, and Formative Test based on the validator's assessment are as follows:

Table 1. Practicality Assessment Results of Learning Devices

Learning Devices	Validator	Description
Lesson Plan	1	Can be used with minor revisions
	2	Can be used without revision
Learner Worksheet	1	Can be used without revision
	2	Can be used without revision
Formative Test	1	Can be used with minor revisions
	2	Can be used without revision

Based on table 1 above, it can be concluded that overall, the validator's assessment of the Lesson Plan, Learner Worksheet, and Formative Test states that it can be used with little or no revision so that the learning device can be said to be "practical".

Trial

In the trial, data on teacher activities, student activities, student learning outcomes tests, and student responses were obtained. The details of the data obtained during the trial are as follows:

a. The analysis result of the total teacher activity is 4.52. The assessment is in the "good" category so that it meets the criteria to be said to be "effective".
b. Data on students' learning outcomes during the osborn learning process obtained through formative tests after the end of the learning process. The test results obtained by students in general can be concluded that as many as 13 students are "complete" individually, meaning that students have achieved the competencies that have been determined on the material of whole numbers. Likewise, for classical completeness (class success), the percentage of students who are complete is 75% while the class is declared complete if there are at least 70% of students who are "complete" individually so that it can be said that overall students have achieved the competencies that have been determined (Suryaning, et al., 2021; Tafrilyanto & Lanya, 2020)

c. Based on the analysis carried out, it can be concluded that as many as 87.25% of students are happy and interested in the 3C-based Osborn learning model. In other words, the data shows that more than 70% of students responded well to the learning tools (Amany, 2020) so that the student response can be said to be "positive".

Based on the above results, it is obtained that the activity of students is not effective, the teacher's ability to manage learning is effective, the students' response to learning is positive, the learning completeness is classically. In general, the development of the 3C-based Osborn learning model on whole number of materials meets the criteria of valid, practical, and effective.

The limitation in this research is time constraints. Future researchers should provide sufficient time to implement the learning model so that student activities can be better controlled. Student activities are less effective due to limited time in implementing learning. Teachers should plan more carefully to implement this learning model by paying more attention to the availability of time, learning media and the material taught.

CONCLUSION

Based on the results and discussions that have been carried out, this research produces junior high school mathematics learning tools developed consisting of including Lesson Plans with the 3C-based Osborn teaching model (Critical, Creative and Character) on integer material. In addition, other tools are Learner Worksheets, and formative tests to support learning. The development of lesson plan with 3C-based Osborn teaching model (Critical, Creative and Character), Learner Worksheet, and formative test on integer material meets the criteria of valid, practical, and effective.

The application of Osborn's learning model can be done by making careful preparations. Students' learning outcomes that meet the standards, positive student responses and positive student activities are one indicator of the success of the application of learning models applied by teachers in the classroom. Based on the limitations of this study, teachers should prepare learning tools that pay more attention to the availability of time, student involvement in groups and the role of the teacher as a facilitator in learning. Osborn's learning model requires quite a long time in its application so that teachers should pay attention to time management in each learning meeting. This is also related to the teacher's role as a facilitator in learning.

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