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Kevalidan Perangkat Pembelajaran Model *Cooperative Learning* Tipe *Jigsaw* Pada Materi Keanekaragaman Hayati

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Abstract

The effectiveness and achievement of learning objectives is determined by the teacher. The teacher must design the lesson plans before the learning activities take place. This study aims to develop lesson plans based on the JigSaw type cooperative learning model for quality biodiversity materials based on the level of validity. The research only focuses on testing the validity of learning devices. The final result of this research is to produce a valid lesson plan learning device product. To determine the level of validity of this research tool through the expert validation stages (expert learning tools). This expert test (validation) is carried out by 4 validators who are lecturers and experts in the field of education, there are 8 aspects that are assessed in the lesson plan. The results showed that the level of validity of the lesson plan with the cooperative learning jigsaw model from expert validation was quite valid with an average value of 3.2.

Keywords: *: Lesson Plans, Cooperative Learning, Jigsaw*

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INTRODUCTION

Learning in the 21st century requires a quality process to facilitate students in developing skills, abilities and skills as the main capital to face challenges in global life. According to Afriyanti, et. al. (2018) learning in this era focuses on critical thinking skills, being able to connect knowledge possessed with the real world, having good communication skills, collaborating and mastering information technology. Learning tools produced in a learning plan have different structures and roles, but are interrelated with one another in the implementation of learning. The syllabus is used as a reference in developing lesson plans (RPP). RPP plays a role in directing learning activities at each meeting. RPP functions to assist teachers in directing all their activities in the learning process, as well as being a substance of competence that students should learn and master (Depdiknas, 2008).

Each teacher is obliged to prepare learning tools including complete and systematic syllabus and lesson plans so that learning takes place interactively, inspiring, fun, challenging, motivating students to participate actively, and providing sufficient space for initiative, creativity, and independence according to talent, interest, physical and psychological development of students. The method of packaging learning experiences designed by the teacher greatly influences the meaningfulness of the experience for students. Learning experiences that show more links to the conceptual elements studied with the field of study of natural

sciences, especially relevant biology, will form cognitive schemas, so that children gain wholeness and knowledge. Learning devices are complementary tools to carry out processes that enable educators and students to carry out learning activities. Learning tools become a guide for teachers in carrying out learning in the classroom, laboratory or outside the classroom. Learning plans are designed in the form of lesson plans, syllabus and learning process designs that refer to content standards. Apart from that, the learning tools also prepare media and learning resources, assessment tools and learning scenarios (Hakim, L., 2009; Hamalik, O., 2014; Jaya, 2019).

Teachers are expected to be able to develop these learning tools, but in reality, for various reasons, many teachers experience problems in developing learning tools. The results of the author's short interview with one of the education supervisors in the Gorontalo Provincial Government said, "the obstacles experienced by teachers in developing learning tools are real", especially lesson plans for core activities that combine scientific activities with one of the learning models recommended for use in the 2013 curriculum for example project based learning, problem based learning, guided inquiry, cooperative learning and discovery. For this reason, it is important to develop a learning tool, one of which is based on the cooperative learning model. The benefits of learning tools with the cooperative learning model are numerous, including being able to provide opportunities for demonstration learning to occur, students are given the opportunity to communicate and interact socially with their friends to achieve learning goals (Asmani, 2016; Lubis, 2021). To complete their assignments in groups, students will cooperate with one another in understanding learning material and achieving common goals. Cooperative learning models must be developed to train students' cooperative skills or social skills according to the demands of competence in the 2013 curriculum, namely social attitude competence, spiritual attitude competence, knowledge, and skills (Kusuma, 2020).

In addition, the advantage of the cooperative learning model is that students have social skills. Students can have social skills, especially in working together, such as the ability to respect the opinions of friends, explain well to their group mates, the ability to communicate and discuss regularly, the ability to work together to achieve certain goals, and the ability to lead. Cooperative learning model or cooperative learning is a learning strategy that focuses on grouping students according to different levels of academic ability in small groups (Mansur, 2021). In this case, the meaning does not mean that the teacher discriminates between students but helps them understand the material according to their abilities (Setyorini, 2022). For maximum results, this cooperative learning model was developed using a jigsaw type. The jigsaw type provides benefits for students including increasing the self-ability of each individual, accepting each other's weaknesses towards greater individual differences, reduced interpersonal conflict, reduced apathy, deeper understanding, greater motivation, and higher learning outcomes (Hayati, 2016; Kurniasih, 2016).

METHODS

This research is a qualitative descriptive research, a study that utilizes qualitative data and is described descriptively (Sugiyono, 2013; Suharsaputra,

2014), the overall research time takes approximately 3 months, namely from January 2022 to March 2022 starting from the stages of initial information gathering and needs analysis, preparation and design of learning tools, namely Learning Implementation Plans (RPP). validity test and data analysis and preparation of research results. This research is limited to validating learning tools. This research is focused on the validation test process through expert validation tests and content or readability on user validation tests on the development of devices that are made. The end result of this research is to produce a valid learning device product. The data collection method uses the RPP validation sheet based on the JigSaw Learning cooperative learning model. The data that has been obtained is then analyzed for validity test data. To analyze the data using descriptive qualitative using the formula and average score as follows:

$$\text{Average Score} = \frac{\text{Total Score From Validator}}{\text{Number of Validators}}$$

Calculation of the average score of the validation results will be interpreted into the following criteria:

Table 1. Validity Level Category

Nilai	Kategori
$V_a=5$	Very Valid
$4 \leq V_a < 5$	Valid
$3 \leq V_a < 4$	Quite Valid
$2 \leq V_a < 3$	Less Valid
$1 \leq V_a < 2$	Invalid

Source: Ja'far et. al. (2014)

RESULTS & DISCUSSION

Results

Validation was carried out on March 7, 2022. Validation was carried out by 4 expert validators. The RPP assessment by the validator is to be examined and given a score related to the validity of the RPP. While the comments and suggestions for improvement from the validator were used by the researcher to revise the developed lesson plan, the suggestions given by the second validator included adding learning resources and learning materials that were more complete and clear, then also adding an assessment to the developed lesson plan. From the third validator providing comments for the material to be added must be in accordance with the indicators, it is also necessary to adjust between KD and indicators, finally in the lesson plan it is necessary to add an Essay or multiple choice test assessment. The results of expert validation are then used to measure the validity of the learning device. The results of the expert validation are presented in Table 3.

Table 3. Recapitulation of RPP Validation Results

No	Validated Aspects	Average	Category
1.	RPP Identity	4	Valid
2.	The Accuracy of The Translation of Basic Competence Into Indicators	3	Quite Valid
3.	Learning Materials	2,7	Less Valid
4.	Learning Activities	3,4	Quite Valid
5.	Evaluation	1,7	Invalid
6.	Leraning Resources	2,4	Less Valid
7.	Use of Time	3,7	Quite Valid
8.	Use of Language	4	Valid

Discussion

Based on the data above, it can be seen that the results of the validator on the Learning Implementation Plan (RPP) based on the Jigsaw type cooperative learning model have 8 aspects that are assessed, for aspects of lesson plan identity and language use get the highest average score, namely 4 with the valid category, this is because the RPP identity is quite complete which includes educational units, subjects, classes, semesters, subject matter, and time allocation. This agrees with Abdullah (2013) that with the completeness of the contents of the lesson plan identity can help students to understand and understand learning material.

For the accuracy of the translation of basic competencies into indicators, it gets an average score of 3 with a pretty good category, this also gets comments from validator 3 so that it is considered again, for aspects of learning material it also gets comments and input from 2 validators so it gets an average score 2.7 with an invalid category, this is because the RPP does not include Biodiversity material. Aspects of learning activities get an average score of 3.4 in a pretty good category because it is considered to be in accordance with the syntax of the JigSaw cooperative learning model but still needs some more improvements. The assessment aspect gets the lowest average score, namely 1.7 with an invalid category and also gets comments from the validator to make an Essay test or multiple choice assessment on the lesson plan.

Learning resources get an average score of 2.4 with an invalid category because the RPP does not contain clear learning resources, for the last aspect, namely the use of language that is in accordance with EYD, it gets an average score of 4 with a valid category. From the above aspects, overall data is obtained with an average score of 3.2 which states that the development of the RPP is stated to be quite valid.

CONCLUSION

The results showed that the quality of the product produced based on the validity aspect of the RPP was stated to be quite valid. This is because there is still a need for many improvements given suggestions and input from expert validators.

Researchers provide several suggestions, namely the need for further research to test the effectiveness and practicality of this learning tool.

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