

Development Of Character-Based Problem-Based Learning Model For Improving Creative Thinking Ability Thematic Learning Of Elementary School Students

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Abstract :

This research is based on problems related to increasing creative thinking which so far have not activated students in the learning process. The purpose of this research is to develop a problem-based learning model that is valid, effective and practical. The research method used is development research. The research method used is research and development. Character-charged problem-based learning models are developed by meeting the criteria of the learning model components, namely: model syntax, social systems, management reaction principles, support systems, and instructional and accompaniment impacts. Research and development of learning models carried out following the Plomp model. The location of this study was carried out in four state elementary schools with a sample of 80 students in Pematangsiantar city and Simalungun Regency. The instruments developed are in the form of learning model validation sheets and learning tools validated by experts and practitioners. This research produces a character-charged problem-based learning model that meets valid criteria both in terms of content and construct, practical and effective at a high level. The implications of this research are in the form of learning models that can improve students' creative thinking skills. Recommendations for subsequent researchers to apply character charged problem based learning models to other themes

Keywords: Creative Thinking, Problem-Based Learning Model, Thematic Learning, Character Education.

INTRODUCTION

Must learn _ conducted for prepare student in living life 21st century includes: (1) ability innovate and develop creativity; (2) skills solve problem and think critical; and (3) ability communicate and collaborate. one destination education national is realize participant creative learner. One

framework work learning in the 21st century is Skills create and renew (creativity and innovation skills) (Subekti, 2014). This thing could realized with method give right supplies knowledge to participant teach each _ level education as well as train it for think creative. Creative nature will grow in self child when he trained, accustomed since

small for to do exploration, inquiry, discovery and solving problem (Cahyaningsih & Ghufron, 2016).

To face learning in the 21st century, everyone must have critical thinking skills, knowledge and skills of digital literacy, information literacy, media literacy, and mastering information and communication technology (Frydenberg & Andone, 2011).

Application Curriculum 2013 is wrong one effort government for more increase quality graduate of in accordance with destination education. Change 2013 curriculum is expected could produce Indonesian people who are productive, creative, innovative, and affective through strengthening attitude (know why), skill (know how), and knowledge (know what) are integrated. This thing in skeleton welcome development life and science knowledge 21st century, who experienced shift good characteristic as well as learning models.

Change curriculum 2013 or development 2013 curriculum is expected capable push participant educate active and creative to do observation, asking, reasoning, and communicating (presenting), what is obtained or is known after student accept Theory learner . Through development 2013 curriculum is expected participant educate have com potency attitudes, skills, and knowledge more. According to Lismina (2018:243) Participant educate will more creative , innovative , and more productive .

According to Awang and Ramli (2008: 19), the ability to think creatively is considered important because it will make students have many ways to solve various problems with different

perceptions and concepts. According to Utami Munandar (2009:31), the importance of developing creative thinking is based on four reasons, namely the ability to think creatively can realize (actualize) itself, the ability to think creatively as the ability to see various possibilities to solve a problem, busy yourself independently. Creativity is not only useful, but also gives satisfaction to individuals and the ability to think creatively is what makes humans able to improve the quality of their lives

Low ability think creative student no miss from teacher 's role in manage learning . Learning Becomes teacher -centered , while student Becomes passive because only listen and take notes lessons explained by the teacher, attach importance to results of the process, teach by massage page page without discuss linkages between draft or problem . Quality activity The learning that is carried out is very dependent on planning , implementing the learning process and evaluating learning that will teacher did . According to Rusman (2018), the teacher 's job is not solely teach (teacher centered), but more to teach students (children centered).

In school , teacher often use method lectures , so that the long learning process this held not enough give room to student for process his thoughts by independent . Limitations knowledge that students understanding in learning could result in lack of ability think own creative _ students . See results observations that have been done , then in increase ability think creative conducted with method designing learning models by looking at integrated thematic characteristics, scientific approaches , discovery learning,

problem based learning , and project based learning .

Problem-based learning is one of the learning methods that deserves to be developed in line with the demands of learning in the implementation of the 2013 Curriculum. This is in line with the characteristics of PBL as a constructivist learning method oriented to student centered learning that is able to foster a creative, collaborative spirit, think metacognitively, develop higher-level thinking skills. high level, increasing understanding of meaning, increasing independence, facilitating problem solving, and building teamwork.

Learning based problem is a approach learning that presents problem contextual so that stimulate participant educate for study . The learning process designed by the teacher is very influential to meaningfulness experience for students . Success learning will achieved goal when the teacher can convey Theory with good using the right learning model . For that in the learning process the teacher must make student play a role active for learning no seen monotone that is with method apply appropriate learning models . _ Learning model is something planning or something pattern used _ as guidelines in plan learning class . With the learning model the teacher can help student get information , ideas, skills , ways think and express one's own ideas alone . Learning models that can applied to learning thematic is a problem-based learning model

Problem-based learning model help student Becomes learner active because put they in problems that exist in the real world and make student responsible answer in learning . This thing explain that the problem-based

learning model could help student increase ability understand Theory because learning given _ mean . Increase desire _ know students , as well could direct student for can work same inside _ group .

Through application of problem-based learning model expected student could study for solve problem develop initiative , learn by independent nor collaborative . For reach Thing the then the teacher must capable designing learning conducive , open , negotiation , democracy , atmosphere comfortable and fun for students could optimal thinking .

Every man experience problems from start normal _ to the complicated for resolved . If no educated through character education that focuses on focus on solving problem , then tend will damage arrangement life . because of it is necessary since early implanted character who has ability for complete various problem life . Learning based problem Becomes possible alternative _ offered for shape character child so that intelligent in complete problem . Strengthening Character Education is movement education at school for strengthen character participant educate through harmonization though heart (ethics), taste (aesthetics) , processing thinking (literacy), and exercise (kinesthetic) with support involving _ public and work same Among school , family , and community . Main values character it is by the Curriculum Center of the Research and Development Agency The Ministry of National Education and Culture is described in 18 aspects , namely : religious , honest , tolerance, discipline , work hard , creative , independent , democratic , eager know , spirit nationality , love

homeland , appreciate achievement , friendship , love peace , love read , care environment , care social , and responsible answer .

Learning thematic more Emphasis on engagement student in the learning process or direct student by active involved in the learning process . Through learning thematic student could get experience direct and trained for could find alone various learned knowledge _ holistically , meaningfully , authentically and actively . Implementation learning thematic at school elementary (SD) yet as expected . _ Existing fact _ in the field still many teachers feel difficult in doing learning thematic this . Inside _ arrange plan implementation learning already use plan implementation learning thematic but plan implementation learning thematic only as formality only , and the reality in the in teacher class still teach each eye lesson by separate .

One of the learning models that presents situation authentic and meaningful problem _ for get knowledge new that is with learning model based problem . The essence of the learning model based problem according to Arends (2008: 41) works as a stepping stone for investigation and investigation . Through the learning model based problem , student could To do activity identify and research necessary concepts and principles _ for complete problem . Learning process in learning based problem more Emphasis on problems and activities students . Student no only memorize and do practice only , however student sued for use ability think level tall for complete something problem . Arends & Kilcher (2010: 328) added that research on learning based problem need

ability think critical and situation open ended later could bring up ability think creative . Through ability think creative , student could have understanding or ideas for find solution new from something problem . In the process of thinking , students also have a sense of interest for complete problem so that can cultivate desire _ know .

Based on background back on top , need conducted something study development based problem Problem Based Learning (PBL) contains characters . As solution for problems that have been put forward , researcher this To do study with title " Development of Learning Models " Based on Character Loading Problem _ For Enhancement Ability Think Creative Learning Thematic Student Elementary School " .

METHOD

Type research used _ is study development with adopt the model from Plomp with stages development that is Step investigation beginning , stage design , stage realization as well as Step evaluation and revision . Study development this aim for develop learning models based problem loaded character . The place study implemented in elementary schools in the city Pematangsiantar and the District Simalungun with subject study student fifth grade elementary school. Instrument data collection used is sheet validation , sheet observation and test results study .

Results and Discussion

1. Results

Learning model development based problem loaded character started with activity investigation beginning as

following : implementation learning thematically implemented and the application of the learning model based problem loaded character that is done in the land of 122379 which is made base thinking development of learning models , and results education pre school .

Stage second learning model development is design beginning necessary components _ for implementation of the learning model , namely : design early learning model based problem loaded character , design beginning device learning namely lesson plans, teacher books , books students , LKPD accordingly . with learning model based problem loaded character and design instrument used _ for obtain data in the process of developing learning models based problem loaded characters and devices required learning . _

Stage third is Step realization learning model development based problem

loaded character cover syntax , system social , principle reaction , system support and impact instructional as well as impact learning model accompaniment based problem loaded character .

Stage fourth is evaluation and revision , stage this aim for consider quality developed design and make _ sustainable decision _ based on results careful consideration . _ Evaluation includes the process of collecting , processing , and analyzing information by systematic . This thing conducted for evaluate quality solving selected problem . _ Then next with activity revision then return to activity design , and so on . Cycle this is cycle bait back . Activity evaluation and revision could occur repeatedly and stop after get desired result . _

Recapitulation validation learning based problem loaded character could seen in Table 1 below this :

Table 1 Average Value of Learning Model Validation Results based problem loaded character

No	Aspect	Average Score	Criteria
1	Contents	3.63	Valid
2	Construct	3.64	Valid
	Average	3.64	Valid

Referring to Table 1 it can be seen that learning model validation based problem loaded character get the average score is 3.64 and is in the valid category

Recapitulation validation learning model device based problem loaded character could seen in Table 1 below this :

Table 2 Recapitulation results validation device learning

No	Assessed Aspect _	Average	Criteria
1	RPP	3.55	Valid
2	Teacher 's Book	3.57	Valid

3	Book Student	3.56	Valid
4	LKPD	3.62	Valid
	Average	3.58	Valid

Referring to Table 2 it can be seen that validation learning model device based problem loaded character get the average score is 3.58 and is in the valid category

Recapitulation validation application of learning models based problem loaded character could seen in table 3 below this

Table 3 Recapitulation of Validation Results Implementation of Learning Model Based on Problem Loaded Character

No	Aspect	Average	Criteria
1	Syntax	4.12	Very high
2	System Social	4.06	Very high
3	Principle Reaction	4.06	Very high
4	LKPD	4.08	Very high

Referring to Table 3 it can be seen that implementation of learning model based problem loaded character get the average score is 4.08 and is in the very high category

Recapitulation validation the effectiveness of the learning model based problem loaded character could seen in table 4 below this

Table 4 the effectiveness of the learning model based problem loaded character

No	Aspect	Average	Criteria
1	Student Creativity	4.42	Very high
2	teacher and student activities	4.28	Very high
3	teacher's ability to manage learning	4.10	Very high
4	Teacher and student responses	4.12	Very high
	Average	4.21	Very high

Referring to Table 4 it can be seen that the effectiveness of the learning model based problem loaded character get the average score is 4.21 and is in the very high category

Recapitulation score average test results implementation of learning model based problem loaded character could be seen in table 5 below this

Table 5 average values of the results of the trial of the implementation of a problem-based learning model with character charged

No	Trial	Average	Criteria
1	Trial I	3.07	Medium
2	Trial II	3.58	High

Referring to Table 5 can be seen that recapitulation implementation of learning model based problem loaded character on trial Step first with score 3.07 in the category medium, at level second with score 3.58 in the category high.

Recapitulation the effectiveness of the learning model based problem loaded character in increase ability think creative student listed in Table 6 below this:

Table 6. Recapitulation The Effectiveness of the Learning Model In Increase ability think creative

No	Trial	Average	Criteria
1	Trial I	0.55	Medium
2	Trial II	0.85	High

Referring to Table 6 can be seen that recapitulation the effectiveness of the learning model based problem loaded character on trial Step first 0.55 in

category medium, at level second 0.85 in category high.

Recapitulation teacher 's ability to manage learning listed in Table 7 below this :

Table 7. Recapitulation teacher 's ability to manage learning

No	Trial	Average	Criteria
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1	Trial I	3.35	Medium
2	Trial II	3.60	High

Referring to Table 7 can be seen that recapitulation teacher's ability in managing trial learning _ Step first 3.35 in category medium, at level second 3.60 in category high.

2. Discussion

The character-charged problem-based learning model is developed on the basis of the needs needed in learning as a solution in overcoming thematic learning problems because it contains a series of activities both carried out by teachers and students so that thematic learning is more directed towards achieving the expected learning objectives.

The series of activities in the development of character-based problem learning models include various learning tools, namely model books, learning implementation plans, teacher books, student books and student worksheets. In terms of developing a character-charged problem-based learning model departs from the analysis carried out.

Some of the results of the needs analysis obtained information that the implementation of thematic learning carried out by the teacher still uses conventional learning or direct learning with the use of the lecture method, the teacher delivers the subject matter directly lectured followed by conducting question and answer and giving training assignments to students, the implementation of thematic learning in class, teachers have not implemented learning models that are in accordance with the characteristics and objectives of thematic learning.

Based on the needs analysis, it is important to carry out learning development that can be used in thematic learning by applying problem learning models and combining them with characters so that the term problem-based learning model with character is born.

This character-charged problem-based learning model that was developed intends to provide meaningful learning by involving students' knowledge and mental functions in their learning. This is emphasized by the statement of John Dewey, which is a reflective method in solving problems, that is, a process of active thinking, careful which is based on the process of thinking towards definitive conclusions. According to Dewey, schools are supposed to be a larger society and classrooms are laboratories for learning to solve problems. The teacher must involve the student in problem-oriented learning and assist the student in investigating social and intellectual problems. Dewey emphasized that learning in schools must be meaningful. Meaningful learning can be realized through learning carried out in small groups and students choose for themselves the projects they work on according to their interests. This is in accordance with character-charged problem-based learning that prioritizes collaborative problem solving, meaning working together with small groups (Joyce, Well, and Calhoun, 2016).

The development carried out produces a character-charged problem-based learning model designed by following the rules of the Plomp model

research and development methodology with the stages of the initial investigation phase, design phase, realization phase, testing phase, and implementation phase. Character-charged problem-based learning models developed products that have been validated by experts and practitioners. The validation results show the validity of the developed product. Then the first phase of the trial was carried out, and the second trial. Furthermore, practicality and effectiveness testing is carried out. As a result, the product is a character-charged problem-based learning model showing the level of practicality and effectiveness to improve the achievement of student learning outcomes.

Learning materials for character-charged problem-based learning models used for face-to-face learning activities in the classroom, in this case it is necessary to pay attention to the explanation of Dick, Carey and Carey (2009: 230) that learning materials (instructional material) are material, content or content whether written, mediated, or facilitated by the teacher, through which students will use it to achieve learning objectives.

The same thing yaumi (2013: 244) explained that learning materials are a set of materials that are systematically arranged for learning needs sourced from printed materials, visual aids, audio, video, multimedia, and animation as well as computers and networks. Furthermore, Majid (2005: 173) explained that learning materials are all forms of material used to assist teachers / instructors in carrying out learning activities. The material in question can be in the form of written material or unwritten material.

Based on the presentations of Dick, Carey and Carey, Yaumi and Majid

above, the character-charged problem-based learning model product developed is expected to be a guideline and reference that can be used by teachers in teaching and students who follow learning. The devices contained in character-charged problem-based learning model products are: (1) model books, (2) learning implementation plans; (3) teacher's books; and (4) student books, (5) learner worksheets.

Through the character-charged problem-based learning model product, it is hoped that the implementation of learning can run effectively, efficiently and interestingly. This is in line with dick, Carey and Carey's (2009:230) explanation that learning development contains material, content or content whether written, mediated, or facilitated by teachers, through it learners will use it to achieve learning objectives, including materials for general purposes and special purposes and materials to improve student memory. Character-charged problem-based learning model products are designed and structured systematically following a character-charged problem-based learning syntax with which it allows students to have a good learning experience and are expected to achieve learning objectives. Moreover, the novelty aspect of this character-charged problem-based learning model product is a learning material designed for the learning needs of students in elementary schools which in the design process goes through the stages of analyzing learning needs, characteristics of students, designing goals, developing assessment instruments, developing learning scenarios with the peculiarity being the presentation of learning materials through

themes in accordance with the curriculum, then validation by experts so that this product is valid, practical, and effectively used in learning.

The findings of this study support previous findings related to the use of problem learning, including: (1) Research by Lilik Sabdaningtyas and Alben Ambarita (2019) shows that the development products of integrated thematic learning tools in Problem Based Learning that are produced are effective for utilization in the learning process of grade IV students and improving student learning outcomes and students' critical thinking skills after using integrative thematic learning tools in Problem Based Learning. (2) Research by Elben Ambarita, Eka Liana, Chandra Ertikando (2018) shows that the teaching materials developed can improve the ability to think at a high level and learning outcomes of learners who have been analyzed using N-Gain.

Learning tools can be used to facilitate thematic learning by using learning syntax, so in fact it is in line with the spirit contained in the learning, namely active, creative, effective and fun learning. In this case, problem-based learning emphasizes the process of involving learners in groups and cooperatively to find and construct their knowledge.

The model book developed can be used by teachers in carrying out problem-based learning with character. This model book provides a detailed explanation that teachers can understand in the implementation of classroom learning. The urgency of this model book as a teacher's guideline is in line with Majid's (2005) explanation that all forms of material used to assist

teachers/instructors in carrying out learning activities. The material in question can be in the form of written material or unwritten material.

These findings support Jehoshaphat, Henny and Sri's (2018) research on Problem based learning model to improve critical thinking skills and learning outcomes in the sub-theme of the living environment for class IV elementary schools. The results of this study show that the application of problem-based learning models can improve critical thinking skills and student learning outcomes.

The urgency of applying student-centered learning is due to the latest learning trends that paradigma to student center learning, namely that students are subjects in learning and not the other way around, as an object. Placing students as learning subjects becomes an important learning process, where the learning process refers to the development and individual differences of students from various aspects such as abilities (affective, cognitive, and psychomotor), absorption, development of thinking, motivation, and interests.

This is emphasized by the findings of Maulana's (2020) research on the investigation of the textbooks based on problem-based learning to improve student learning outcomes in the thematic learning. The results of this study show that textbooks in problem-based learning can improve student learning outcomes in thematic learning with the theme of Beautiful Diversity in my Country. By integrating the character of students in the problem-based learning process, it will further improve the learning process. This means that character-charged problem-based learning models are also worth

implementing to improve the creative thinking abilities of elementary school students.

The teacher is an urgent figure in designing a learning, in this case the teacher must have a clear vision and a sharp analysis of the learning design in order to facilitate students to learn. In other words, the main purpose of the learning design is to make learning more efficient, effective and in its implementation can avoid student learning difficulties. In other words, the quality and success of learning in principle depends on the quality of the learning design prepared by the teacher.

Efforts to improve the quality and success of teacher learning are expected to have the ability to make changes in learning towards a higher quality. In this case, learning should be able to make students able to construct or build their knowledge, not just get knowledge transfer from the teacher. To achieve this, learning carried out in the classroom is an activity that is intentional or designed by the teacher to students to achieve certain goals in the form of expected competencies after participating in learning.

The role of student books, students as learning resources is to assist students in participating in learning, as stated by Yaumi (2013: 246) that BS and BG are a means of achieving competency standards, basic competencies or learning objectives and as an optimization of services to students. The same thing Siregar and Nara (2010: 126) explained about the benefits of learning resources, namely: (1) can provide a more concrete and direct learning experience, (2) can present something that is impossible to hold, visit or see in person, (3) can add to

and expand the horizons of science that exist in the classroom, (4) can provide accurate, and up-to-date information, (5) can help solve educational problems both macro and in the microenvironment, (6) can provide positive motivation, more so when organized and designed appropriately, and (7) can stimulate to think more critically, stimulate to be more positive and stimulate to develop further.

Regarding the use of BS and BG as learning materials, Ibrahim and Syaodih (1996) explained that important aspects that need to be considered in developing learning materials are: (1) in accordance with learning objectives or supporting the achievement of learning objectives, (2) in accordance with the level of development of students in general, (3) organized systematically and continuously, and (4) covering things that are factual and conceptual.

In line with the explanation above, Gachukia and Chung (2005) explained the aspects that must be considered in developing learning materials, namely: (1) general goals and specific objectives of education; (2) learning theory; (3) a culture of reflection; (4) teaching and learning methodologies; (5) curriculum integration in learning materials; (6) learning assessment; (7) the use of language; (8) responses to gender; (9) language issues; and (10) technical problems in the production of learning materials.

Related to the development of this LKPD, Dick, Carey and Carey (2009) explained that the development should be centered on goals, student learning activities and technical implementation of learning. Goal-centered criteria include

the suitability of the material in the learning objectives, the breadth and completeness of the material and the present. Criteria centered on student learning activities are the development of motivation and attractiveness. Furthermore, the technical criteria for implementing valid learning are based on the presence or absence of learning objectives, layout, readability and usefulness.

To ensure that a learning model is effective, a teacher needs to consider and predict any activities that may hinder the learning process. Teachers need to plan all activities carefully and make use of time appropriately and efficiently. Thus, the learning carried out by the teacher will be able to meet the criteria for implementation.

Some of the reasons that make a problem-based learning model charged with character can improve the ability to think creatively as expressed by Abdurrozak et al., (2016) include: the existence of discussion activities in learning activities, learning is carried out in a fun manner, student activities that actively follow the learning process, the existence of LKS media to make it easier for students to understand learning concepts, the existence of different situations so that students can enjoy challenges and be optimistic about learning.

Furthermore, the important thing in cultivating the ability to think creatively is the role of the teacher to be able to guide students by providing clues or accompanying questions that will be able to direct students to be able to understand the problems and concepts taught. In addition, problem-based BG, BS, and LKPD will be enough to help

teachers to provide students with an understanding of the problems being discussed (Aliyah, 2017).

Aliyah (2017) revealed that with problem-based learning, students will discover their knowledge and will gradually hone their creativity in solving problems related to daily life. Learning will be more effective if it is accompanied by learning media that support the learning model used in the classroom.

However, there will be problems in efforts to implement problem learning models in the classroom, including related to the ability of teachers to manage learning. One of the problems is that the teacher's ability to provide scaffolding is still not good. Scaffolding is the teacher's effort in the form of providing assistance and direction to individual students or groups, through questions designed to lead students to find the rightful answer. This is in accordance with the statement of Nafiah and Suyanto (2014), that the fundamental problem in applying the problem-based learning model is the tendency of students to be passive in the learning process, so that extra efforts of teachers are needed in providing direction to the person in charge of the group to engage in discussions and seek resolution of problems.

To increase the success of the learning process, Ardyanto et al., (2018) suggested that teachers and students collaborate in building the learning process and continuously increase student involvement in learning that is quite optimal. In addition, to obtain an effective learning process, it is necessary to integrate student needs, a planned learning process, and the availability of

media that supports the learning process (Ambarita et al., 2018).

In relation to problem-based learning models, Hung (2006) suggested that PBL can be effectively applied in learning it is necessary to integrate three structural elements (content, context, and connection) as well as the three elements of the process (search, reasoning, and reflection). Muhlfelder et al., (2015) explained that content refers more to the scope and depth of the problem, context refers to the application/application in a particular field of scienc

With regard to thought processes, Siegler (1989) states that the most effective method for developing thinking skills is to invite students to overcome new problems. In addition, Siegler claims that routine problems will help students organize solution mechanisms, but non-routine problems will help students to the development of new mechanisms in their cognitive processes. This means non-routine problems will contribute more to improving students' thinking skills.e, while connection refers to the relationship that exists/is established between one domain and another.

In its implementation, the teacher must be able to tolerate minimal conflicts between students and become a mediator without too interfering with the learning process itself (Ulger, 2018). The mediation carried out by the teacher will allow students to think creatively in a flexible learning environment. This means that by planning the flow of the learning process in various forms (model books, student books, teacher books, rpp, and LKPD) and distributing instructions to students will further improve the effectiveness of the learning process carried out.

The character charged problem-based learning model developed is proven to be practically applied in the learning process and can improve student learning outcomes in thematic learning. This is because problem-based learning integrated in learning tools or textbooks is religious with students' daily lives and concepts presented according to student needs (Prabowo et al, 2019). In addition, the learning model will be more practical with the role of the teacher in: helping students carry out investigations, helping students train memory conceptually so that it becomes stronger, and encouraging students' problem-solving ability (Trianto, 2010).

Character-based problem learning models can also be applied when the teacher wants students not only to have the ability to remember the subject matter, but rather to master and fully understand the subject matter (Prabowo et al., 2019). In more specific objectives, a character-based problem learning model will train students to solve problems. Prabowo et al., (2019) also stated that learning carried out after developing a character-based problem learning model will be able to foster a more challenging and enjoyable learning experience for students.

The presentation of learning materials by adopting superior characteristics that exist in problem-based learning, planting superior basic characters, and training creative thinking skills in the character-based problem learning process through problems (both routine and non-routine problems) will be able to improve students' mindsets to be more logical. Especially if in the implementation of learning by utilizing

learning tools (BG, BS, and LKPD) is presented interestingly and defiantly.

CONCLUSION

The entire set of character-charged problem-based learning models has been validated by educational experts and practitioners, the results show high criteria so that the learning model product is worth using. Furthermore, character-charged problem-based learning models have a level of practicality, and effectiveness to improve students' creative thinking abilities. The level of creative thinking ability of students, the ability of the teacher to manage learning well, and student learning activities during the learning process have increased.

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