Development of Regional Characteristics Based Learning Model on Geography Materials in Penggerak School

Ode Sofyan Hardi, Rayuna Handawati, Ilham Badaruddin Mataburu and Cahyadi Setiawan

Geography Education Department, Faculty of Social Science and Law, State University of Jakarta, Indonesia

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Abstract: The foundation of the Merdeka Curriculum are Learner-centered approach, Flexibility in learning, Enhancement of essential competencies, and Integration of the Pancasila Student Profile, which is completely implemented in schools (Permendikbudristek No12/2024). Competencies must be knowledgeable, skilled, and possess positive social and intellectual attitudes. The networking stage is used in the scientific method of learning, including observation, inquiry, data collection, debate, and association. Regional Characteristics-based Learning Models (RCLM), discovery learning, and problem- based learning are instructional strategies appropriate for the national curriculum. They choose and create learning models suited for the subjects and fundamental skills students must acquire. The learning model we select needs to be adjusted to the student's circumstances and abilities, learning resources, and the instructor's or institution's. A real-world problem is a context for students to develop their critical thinking and problem-solving abilities and their knowledge of regional characteristics in the RCLM educational model. The free curriculum offered by RCLM includes levels that serve as an orientation to regional issues. Organize the class, administer the individual and group tests, and create and present the work. The cultural-behavioral approach refers to cultural elements passed down from generation to generation, impulsive in learning through the stimulation of intimacy. Analyze and assess problem-solving procedures.

1 INTRODUCTION

A student's acquired competencies are included in what they learn in school. One of the cutting-edge learning models that can offer students an interactive learning environment is the Learning Model Based on Regional Characteristics (hence referred to as RCLM). With the help of scientific methodologies, students solve problems using the RCLM learning model. They also learn about the issues at hand while honing their problem-solving abilities (Seibert, 2021). If students break down the difficulties they do not grasp, then the Problem- based Learning (PBL) model is more frequently utilized in a stronger learning process than the RCLM. However, as stated in the following passage from Robert Delisle's 1997 book, How to Use Problem-based Learning in the Classroom, "RCLM solves problems that they feel in the area where they live": "It is active in the fields of dentistry, pharmacy, optometry, and nursing, as well as medical schools around the world." Additionally, it is employed by instructors who have received PBL Institute training in high, middle, and elementary schools in urban, suburban, and rural locations. PBL is a learning method where students encounter real-world issues as unstructured or unrestricted learning stimuli (Simanjuntak et al., 2021). One of the cutting-edge teaching methods that can give students dynamic learning environments is the RCLM. In the RCLM learning paradigm, students follow the steps of the scientific method to solve issues, hone their problem-solving abilities, and learn about difficulties in general (Hardi, 2020). These two things are significant since the educational process in schools ignores them. In 2022, the new curriculum will start. Driving schools previously had their curriculum. However, for the time being, the Ministry of Education and Culture emphasizes that all schools implement the Merdeka Curriculum as part of a campaign to speed up learning and restore education. Institutions can access the Merdeka Curriculum implementation through the educational process. (kemdikbud.go.id).

The Merdeka curriculum serves as the foundation for Indonesia's educational renaissance. Before the Covid-19 epidemic, Indonesia employed the 2013

Curriculum (K-13) and the Emergency Curriculum (*Kurikulum Kedaruratan*), also referred to as the emergency syllabus. It takes place in the secondary education department. We also began with early childhood education and fundamental education modules. The curriculum greatly influences the execution and success of education. Richard (2001: 2) states that *curriculum development is more comprehensive than syllabus design. It includes the processes that are used to determine the needs of a group of learners, to develop aims and objectives for a program to address those needs, choose an appropriate syllabus, course structure, teachings methods, and materials, and to carry out an evaluation of the language program that results from the processes.*

A solid curriculum is built around various pillars, including philosophical, sociological, psychological, conceptual-theoretical, historical, and legal (Fredriksson et al., 2020). The philosophical underpinnings of curriculum development determine the standard of learning outcomes, curriculum resources and content, the learning process, the student's position, the evaluation of learning strategies and outcoproducts the student's relationships with society and the environment. grads' caliber (Mutale Mulenga, 2020). According to the National Education Goals, the philosophy adopted should serve as a basis for students to reach their full potential and become exceptional Indonesians (*Tujuan Pendidikan Nasional*). When creating a curriculum, many philosophical education systems might be considered. A solid curriculum is built around various pillars, including philosophical, sociological, psychological, conceptual-theoretical, historical, and legal (Fredriksson et al., 2020). The philosophical underpinnings of curriculum development determine the standard of learning outcomes, curriculum resources and content, the learning process, the student's position, the evaluation of learning strategies and outcomes, and the student's relationships with society and the environment. grads' caliber (Mutale Mulenga, 2020). According to the National Education Goals, the philosophy adopted should serve as a basis for students to reach their full potential and become exceptional Indonesians (*Tujuan Pendidikan Nasional*). When creating a curriculum, many philosophical systems of education might be taken into an accountant, striving to improve people's current quality of life and set the stage for a better future for all. The curriculum should be viewed as a strategy for educating the younger generation of the nation to live (Khan & Law, 2015).

The establishment of curricula should consider educational requirements that can offer students opportunities and experiences that will optimize their potential for superior success outcomes. The educational process should consider the thoughts, interests, drive, and developmental phase of pupils of various characteristics. The growth and development of mental, social, emotional, and intellectual intelligence must be supported in education in a balanced way. The student's psychological and physical maturity should be considered during the educational process. Thus, it is assumed that education will foster intellectual and non-academic genius in pupils. The Ministry of Education and Culture's Independent Campus Program (*Program Kampus Merdeka*) demands an independent study program, which must also be considered while creating the curriculum, Industry 4.0 and Society 5.0. You can establish research problems based on the research backdrop, such as how to create learning models for driving schools using the Merdeka Curriculum tailored to local circumstances.

2 METHODOLOGY

The descriptive method was employed in this investigation. A research strategy used to examine natural items is descriptive (as opposed to experimental concepts). Because the thing in the research is one of pristine nature, as it is in everyday situations unaffected by circumstances or conditions, this method is known as descriptive. It is a technique used to explain such an issue. A descriptive technique is a way to look into how a class of people, an object, a collection of circumstances, a mental system, or a group of recent occurrences are doing right now. This descriptive study aims to paint a methodical, factual, and precise picture of the characteristics, details, and connections between the occurrences under investigation. The implementation of each syntactic RCLM model is the phenomenon being examined. Current issues are addressed and solved using descriptive research techniques. This is accomplished by performing the phases of data collection, classification, analysis, processing, conclusion-making, and reporting with the main goal of presenting an impartial image of the conditions in the description. On the other hand, the quantitative approach is significant since it is the method utilized in research to determine the relationship between variables by measuring an index of the research

variables. The quantitative method aims to quantify the variables being studied.

The application of quantitative descriptive techniques is consistent with research variables that concentrate on current issues and phenomena in the form of statistically meaningful research findings. These investigations are frequently referred to as surveys or descriptive studies. In the interviewee's memory, descriptive research offers a perspective that is valid right now, or at least for a while. The study was carried out at the High School (SMA) Labschool Jakarta Rawamangun in Phase E with students in the 10th grade using the Merdeka Curriculum; the sample utilized was made up of two classes. Additionally, the analysis is descriptive.

2.1 Theoretical Basis

2.1.1 Learning Design

The term "learning design" can refer to a variety of concepts, including disciplines, sciences, systems, and processes. Studies and theories about creating and putting into practice techniques and learning as an area are examined in learning design. Developing specifications for the development, implementation, evaluation, and administration of contexts that enable learning services at the macro and micro levels for various topics with differing degrees of complexity constitutes learning design as a science. The development of learning systems and their implementation systems, along with facilities and procedures to enhance the quality of learning, is part of the work on learning design as a system (Yan et al., 2021). The process of learning design entails the creation of learning systematics that explicitly employ learning theory to guarantee the caliber of learning. The statement reflects the knowledge that creating a learning plan must adhere to the teaching philosophy and draw inspiration from the chosen curriculum. The practice of putting together media and content communication technologies to assist the efficient transmission of knowledge between teachers and students can thus be defined as learning design. Determine the learner's fundamental level of comprehension before creating learning objectives and creating media-based 'treatments' to ease the transition. This approach should ideally be guided by pedagogically sound learning theory and be limited to student participation in teacher-led or community-based settings. According to Mangaroska and Giannakos (2019), the key elements of learning design are as follows:

a. Learning Objectives (general and specific) Description of the abilities that the learner will acquire.

b. Learners to know (focused people) include their characteristics, initial skills, and prerequisites.

c. Learning analysis is the process of analyzing a subject or material studied.

d. Learning strategies can be applied at the macro level within one year or at the micro level in teaching and learning activities. The material is in the form of material given to students.

e. Learning Assessment, measuring abilities or competencies that have been mastered or not.

2.1.2 Theories in Learning

The behavioristic theory ignores the cognitive processes taking place in the brain and considers the mind as a "black box" in response to stimuli that can be observed quantitatively. The group believes that observable and quantifiable behaviors are signs of learning. Students must be fully informed of their learning outcomes in order to set expectations and assess whether they have met their online learning outcomes. This idea is being applied in the design of learning media. To determine if students have attained learning objectives, testing is necessary (Morselli, 2018). Tests are administered to determine the learner's performance level and to provide pertinent feedback. Learning resources need to be organized in the proper order to enhance learning. The progression includes application knowledge and varies from simple to complicated, known to unknown. Feedback should be given to students to learn how to make necessary corrections. dementia theory following are the categories of learners according to cognitivism (Suh & Ahn, 2022):

a) Learners with substantial experience prefer concrete examples they can use and connect with friends to authoritative figures.

b) Reflective observer learners prefer to observe before acting.

c) Abstraction learners prefer to work with objects and symbols rather than people. You work theoretically and enjoy systematic analysis.

d) Active experimental learners prefer to learn through project exercises and discussion groups.

They like asking for advice and information, communicating with peers, and using active learning techniques. Following are

examples of how this idea is applied while designing educational media:

a) Different learning style activities must be included in the learning materials so that students can select the appropriate activity based on their preferences.
b) Learners with various learning styles should receive adequate assistance in addition to activities. Diverse learning styles give students different options for support; assimilators, for instance, appreciate the presence of high teachers. While accommodators favor a little instructor presence.
c) To accommodate individuals and promote long-term memory transfer, information should be delivered in various ways.
d) Regardless of how well the course material works, learners should be inspired to learn. The learner won't know if they are not motivated.
e) Students should be permitted to reflect on what they learned while studying. Work along with other students, and monitor their development.

2.1.3 Learning Models

The learning design is well known for the various models supplied by professionals. Some examples are class-oriented, system-oriented, product- oriented, procedural, and circular learning design patterns. Class-oriented approaches frequently plan for micro-level learning to take place in the classroom every two hours or so. The ASSURE model is one illustration. A product-based paradigm is a strategy for creating learning resources, typically in modules, multimedia learning, or learning videos. The Hannafin and Peck models are two examples of models. The system-oriented model, also known as the learning design model, is another type of model that may be used to create a comprehensive learning system. Examples include designing a training system, a school's curriculum, etc. The ADDIE model is one illustration. Additionally, there are models that we typically refer to as procedural and circular. An example of a procedural model is the Dick and Carrey model, while an example of a circular model is the Kemp model. Some examples of the above models are described in more detail below: Dick and Carrey models. One of the learning design models is the model (Muntari, 2016). This model belongs to the procedural model. The stages of Dick and Carey's Learning Design are (Hadith, 2021):

a. Conducting learning analysis
b. Identify behavioral inputs and student characteristics
c. Formulate performance objectives
d. Develop basic test items
e. Strategizing Strategies
f. Develop and select learning materials
g. Designing and conducting formative assessments
h. Reviewing learning materials
i. Designing and summative assessments.

The Dick and Carey model have eleven steps. Each phase is so obvious that it might be a starting point for a novice designer to learn another design paradigm. The ten steps of Dick and Carey's concept have an obvious relationship between one another and are not broken up. In other words, Dick and Carey's technique is incredibly succinct, but the material is dense and obvious from one sequence to the next (Sabri & Rahim, 2020).

2.1.4 Regional Characteristic-Based Learning Model (RCLM)

Real-world issues are used as a setting for teaching students critical thinking and problem-solving techniques, as well as information acquisition based on the characteristics of their location, in the RCLM (Hardi, 2022). RCLM is a curriculum development and guidance method that places students in active roles as everyday issue solvers, concurrently developing problem-solving techniques, knowledge, and skill foundations. Composed. According to the two explanations above, PBL is any learning environment focused on solving everyday problems (Hardi, 2022). PBL results from a ground-breaking program created at the Canadian McMaster University School of Medicine (Amin et al., 2021). The curriculum was created in response to the fact that many graduates struggle to put their newfound knowledge into practice. PBL has now migrated into law, economics, architecture, engineering, and academic courses. PBL is a method of subject construction and instruction that emphasizes student movement activities and uses issues as motivation (Anazifa & Djukri, 2017). a teaching strategy based on the idea that difficulties might serve as a springboard for additional learning, obtaining, or incorporating new information (Hendriana et al., 2018). A learning strategy called RCLM uses issues as steps. These experts' assessments support the notion that problem-based learning (PBL) is a teaching strategy that promotes higher-order thinking in pupils. Students collaborate in groups to solve

problems while learning—world simulation problems in the classroom pique students' interest before they begin studying a topic. RCLM teaches students how to acquire the appropriate learning resources, think critically, and think critically. For us to comprehend that RCLM is a learning process where the foundation of learning is built on real-life situations, students are motivated to learn the problem based on prior information and experience so that from this basic knowledge will be produced new knowledge and experience (Hardi, 2022). Small- group discussion is the primary method for putting learning into practice. With RCLM, problems serve as the primary learning framework, allowing students to learn about topics that can bolster their previous knowledge by applying real-world challenges.

Less effective and efficient learning methods, such as occasionally monotonous learning and authoritarian teachers that are less sympathetic to students, make pupils feel bored and uninterested in education, which leads to an imbalance in cognitive, affective, and psychomotor capacities. To get around this, educators and teachers must constantly work to raise the bar of their professionalism by giving students access to learning opportunities and successfully involving them in the learning process. The instructor's ability to process learning, which can create scenarios that allow pupils to learn such that it is the beginning point for successful learning, determines how successful learning is measured in terms of meeting competency criteria (Semiawan, 1985). According to numerous theories and study findings from educational experts, learning will be successful if pupils actively engage in it. The phrase "active student learning" was created on this basis (ASL). Problem-based learning (PBL), made from thinking about democratic principles, efficient cooperative behavior learning, and recognizing diversity in society, is one learning strategy that considers ASL.

PBL aims to allow students to explore ideas and work through challenges associated with the subject the instructor is presenting. Because mathematics fundamentally tries to teach students how to apply mathematical concepts to real-world situations (Simanjuntak et al., 2021). Know the local environment to learn about its processes, apply mathematical ideas to describe the signs of the environment, and use basic technology to address problems in daily life. Students don't merely hear material from the teacher when using the PBL method. In this scenario, the teacher is a facilitator and motivator who encourages pupils to actively participate in the learning process by posing problems

based on the studied principles. The constructivist educational flow, where learning is an active learning process to create knowledge, is more closely associated with RCLM characteristics. The active process in question consists of both mental and physical components. In other words, through physical activity, the learner actively constructs their knowledge based on the process of intellectually assimilating new information or experiences with prior knowledge (Suh & Ahn, 2022). Teachers must design a learning environment that embodies the democratic and scientific processes as a social system in order for students to learn. The growth of social dynamics in society is addressed by problem-based learning, which is a response to competence learning methodologies. Furthermore, problem-based learning is undamentally an advancement of group learning. In order to teach students how to think critically, solve problems, and gain fundamental knowledge and understanding of the subject matter, problem-based learning methodologies have distinguishing features.

Learning how to learn, experience-based education, authentic learning, and anchored instruction are all components of problem-based learning that encourage higher-level thinking. In problem-based learning, the teacher's job is to offer issues, pose questions, and encourage discussion. Without the teacher creating a classroom climate that encourages an open exchange of ideas, local problem-based learning cannot be implemented. Presenting students with real and important problem scenarios can help them undertake investigations in an inquiry. This is known as problem-based learning (Bell & Liu, 2019). PBL has several fundamental elements in education, as follows:

a. Integrated Learning, Learning integrates all subject areas. Learning is thorough, involving aspects of child development child building thinking through direct experience

b. Contextual Learning, Children learn something real that happened and experienced in their lives. Children feel firsthand the benefits of learning in their lives constructivist Learning, Children build their thinking through hands-on experience Learning by doing

c. Active Learning, Children as learning subjects who actively determine, conduct, and evaluate (Plan-Do-Review)

d. Learning Interesting. Learning is more interesting and fun for the child because the child is directly involved in determining the problem.

3 RESULTS AND DISCUSSION

The implementation of RCLM is carried out at the Rawamangun Labschool Senior High School (SMA), a driving school using a Merdeka Curriculum. RCLM takes place in six phases, namely:

1) Phase 1: Submission of problems that occur in the region. The questions posed, as stated earlier, must be poorly structured, so for their resolution, further information or data is required, allowing many means or answers and quite extensive material content.

2) *Fase2*: What is known from the problem? In this phase, each member will look at the problem in terms of the knowledge they have previously possessed. The group will discuss and agree on boundaries on the issue and sort out issues and aspects that are reasonable enough to be investigated further. This initial analysis should produce a starting point for investigation and can be revised if an assumption is questioned or new information comes to the fore.

3) *Phase 3:* What is the problem unknown, and what are the indicators based on territoriality? Here the group members will list questions or learning issues that must be answered to explain the problem. In this phase, group members will break down the problem into components, discuss its implications, propose various explanations or solutions, and develop work hypotheses. This activity is like a "brainstorming" phase with evaluation; explanations or solutions are noted. The group needs to formulate learning objectives, determine the required information, and how this information is obtained.

4) *Phase 4:* Alternative Solutions. In this phase, the group members will discuss, evaluate, and organize and change hypotheses. The group will create a "What to do?" list that leads to the resources needed, the people to contact, the articles to be read, and the actions required by the members. In this phase the members of the group will determine and allocate tasks and develop a plan for obtaining the required information. Such information can come from within the classroom, reading materials, textbooks, libraries, companies, videos, and a specific expert. When there is new information, the group needs to analyze and evaluate its reliability and usefulness for

solving the problem at h

5) *Phase 5:* Report and Presentation of Results. In this phase, each group will write a report on the results of their group's work. The report contains the results of the group's work in previous phases, followed by why an alternative was chosen and a description of the alternative. At the end of each group, explain the concepts contained in the problems posed and the proposed solutions. For example, what formulas do they use? This report was then presented and discussed in the face of all students.

6) *Phase 6:* Material Development. In this phase, the teacher will develop the material to be studied further and in- depth and facilitate learning based on the concepts proposed by each group in its report.

By paying attention to the activities of each phase, learners spend a lot of their time discussing problems, formulating hypotheses, determining relevant facts, seeking information, and defining the content of the learning itself. Unlike traditional learning, learning objectives in PBL are not set upfront. Instead, each group member will be responsible for constructing the content of the issues or objectives based on the group's analysis of the given problem.

The Implementation of specific actions to put the learning system we are developing into action. That is, everything that has been designed to this point has been installed or configured in accordance with its intended use or function (see figure 1). If the environment must be structured in a specific way, then that environment or setting must also be established. It is only then put into practice in accordance with the original scenario or plan. can occur in every four phases above. The evaluation in each of the four phases above is called formative evaluation because the purpose is to revise needs. For example, at the design phase, maybe we need a form of formative evaluation, an expert review, to provide input on the design we are making. At the development phases, it may take a trial of the product we are developing, or it may need a small group evaluation and others. RCLM design consists of three phases, namely the needs analysis phase, the design phase, and the development and implementation phase.

In this model, assessment and repetition need to be executed in each phase. This model is a product-oriented learning design model. The first phase of the RCLM is the needs analysis. This phase is needed to identify the needs of the needs in developing a

learning media, including the objectives and objectives of the learning media created, the knowledge and proficiency required by the target group, and the equipment and needs of the learning media. Once all the needs are identified, it is emphasized to assess that result before proceeding with the construction to the design phase. The second phase of the Hannafin and Peck models is the design phase. In this phase, the information from the analysis phase is transferred into a document that will be the purpose of making learning media, stating that the design phase aims to identify and document the best method to achieve the purpose of making the media. One of the documents produced in this phase is a storyboard document that follows the sequence of teaching activities based on lesson needs and learning media objectives obtained in the needs analysis phase. As is the case in the first phase, the assessment needs to be carried out in this phase before proceeding to the development and implementation

phase. In the third phase of the development and implementation phase, said the activities carried out are flowchart earnings, testing, formative and summative assessments. The storyboard document will be used as a basis for making flow charts that can help the process of making learning media. Assessment and testing are carried out to assess the smooth running of the resulting media, such as link continuity. The results of this assessment and testing process will be used in the customization process to achieve the desired media quality contained in the fifth phase. RCLM emphasizes that the assessment and repetition process must include processes for testing and assessing learning media that involve all three phases on an ongoing basis. In the RCLM, there are two types of assessments: formative and summative. Formative assessment is carried out throughout the media development process, while a summative assessment is carried out after the media has been completed (see **Figure 2**).
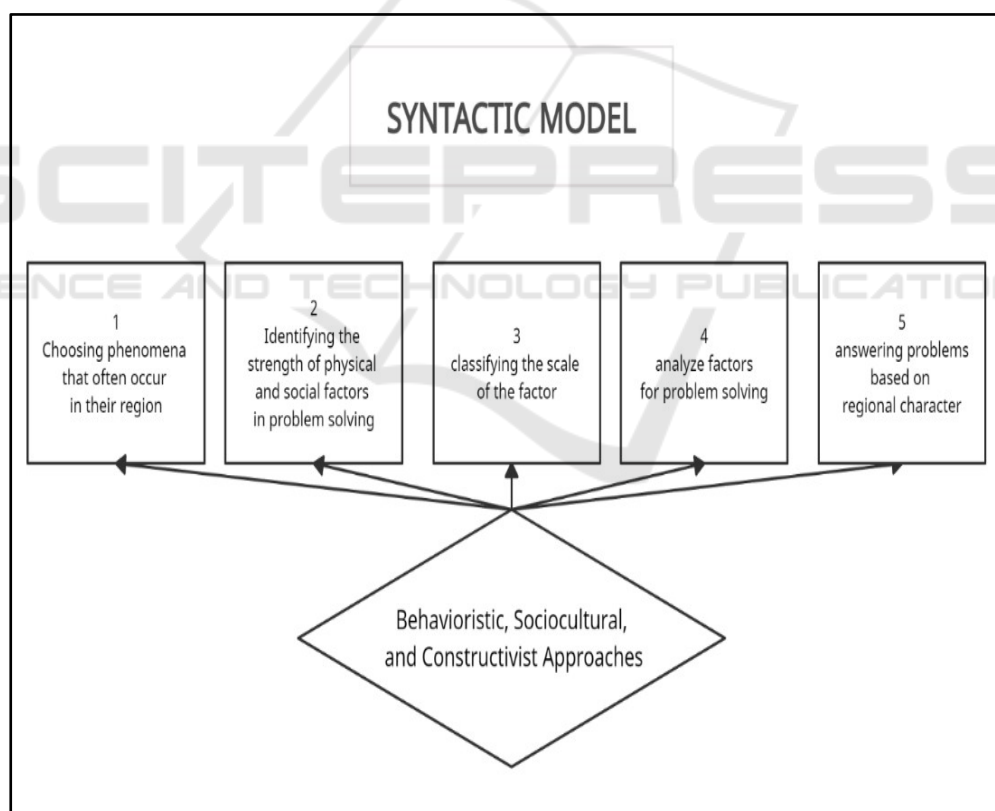

Figure 1: Syntactic Modification of RCLM source: Research result of 2022.
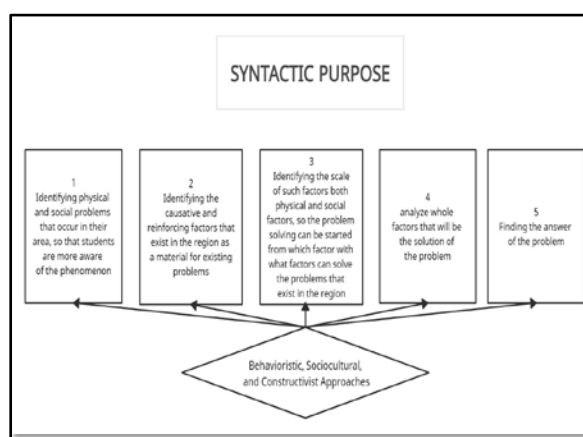
Figure 2: Syntactic Purpose of RCLM source: research result of 2022.

4 CONCLUSIONS

1. The development of a Learning Model Based on Regional Characteristics (RCLM) is carried out in driving schools because this school has advantages from the aspect of a good classroom ecosystem. So that the RCLM can be developed optimally

2. With the development of an RCLM can increase the development of student's academic potential, both cognitive and psychomotor optimally because all components of the class support the implementation of the model

3. In implementing the RCLM, it is necessary to look at the availability of learning time, meaning that it can better utilize the study space asynchronously by doing learning modules.

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