

Independent Learning Curriculum Development based on Green School Concept

¹Mira Purnamasari Safar

Prof K.H. Saifuddin Zuhri Islamic State University

²H.E. Mulyasa

Langlangbuana University

³Fauzi

Prof K.H. Saifuddin Zuhri Islamic State University

Abstract

According to World Education News and Reviews and Program for International Student Assessment (PISA), the quality of education in Indonesia is still low compared to other countries. The low literacy skills and PISA scores of students in Indonesia are part of the problems in the schooling system including input, process, and output that are related to one another. Although the problem of education is an interrelated system, the curriculum often gets the main attention because it is believed to be a determinant of the success of education.

The current curriculum is the 2013 curriculum, but in line with improvements to the implementation of the 2013 curriculum, the Minister of Education and Culture announced a policy package for independent learning in November 2019. The Minister of Education and Culture stated that many anti-mainstream schools carry out various curriculum developments in the regions and have implemented the concept of independent learning. One of the many anti-mainstream schools, better known as alternative schools that innovate curriculum and practice independent learning in Indonesia, is the green school.

This research uses a qualitative case study method approach, with the results of the model of an independent learning curriculum based on the green school concept that has been implemented and evaluated. According to students, learning in green schools is fun and liberating because they are allowed to choose what to learn and how to learn it using digital project-based learning methods.

Keywords: Curriculum, Independent Learning Curriculum, Green School, Independent learning

I. Introduction

Education cannot be separated from the schooling system which is believed to be able to stimulate, develop and optimize the potential of students in a structured manner, even being able to provide acceleration in science and technology as well as social society (Fauzy, 2018). According to the 2019 World Education News and Reviews report, Indonesia has problems with the schooling system in terms of providing inclusive schools that can meet the diversity of students in Indonesia with high-quality education and able to compete with the quality of education in other countries. World Education News and Reviews (Dilas, 2019) assesses the quality of Indonesia's education is

low based on data obtained from the world bank which states that 55% of students in Indonesia who have completed their education at the secondary and higher education levels are functionally illiterate, this figure is very high when compared to Vietnam at 14%.

The low quality of education in Indonesia can also be seen in the PISA (Programme for International Student Assessment) score where the average cognitive score of students in Indonesia is in the sixth-lowest position in the world with a reading score of 371, a math score of 379 and a science score of 396 below Kazakhstan and Panama, while China with a reading score of 555, a math score of 591 and a science score of 590 tops the

list. This reality is certainly very concerning, it is necessary to find the root of the problem so that in future Indonesia can become one of the countries with the quality of education that is taken into account by other countries (PISA, 2018).

The low literacy skills and PISA scores of students in Indonesia are part of the problems in the schooling system including input, process, and output whereas in a system the three are interrelated with one another. Input is a goal in the implementation of education, which is the foundation in the preparation of learning plans or known as curriculum and learning activities. The process of all activities carried out in learning planning, implementation of learning to the evaluation of learning, while output is the final result of the input and educational process. If the input or educational objectives have been clearly defined, it will be easy to develop a curriculum and apply the curriculum in learning activities. Learning activities that are in line with inputs will produce outputs that meet the objectives of holding education.

Although educational problems are an interrelated system, the curriculum often gets the main attention because it is believed to be a determinant of educational success, as stated by Priestley and Philippou (2019), "The curriculum is – or at least should be – at the heart of educational discourse and practice." The curriculum should or should be at the heart of the discourse and implementation of education because it largely determines the success or failure of educational output. The curriculum as the heart of education here means that the curriculum is the most important part of learning, as the heart in the human body is one of the vital organs that supports human survival. The curriculum is present as a guide so that learning is more structured, directed, and measurable.

"Change Minister, change curriculum" (Alhamuddin, 2014), the change of the national curriculum elevates an effort by the government, in this case, the Ministry of Education, Culture, Research and Technology in developing curriculum as a response to changes in science and technology as well as the progress of society globally. However, this curriculum development effort has not been able to achieve the national education goals optimally.

Currently, the applicable curriculum for primary and secondary education is the

2013 curriculum. According to Mulyasa (2013), in the 2013 curriculum, the teacher directs students to be able to achieve a minimum level of competence so that they can achieve learning objectives. The criteria for student success are not only seen from the cognitive side but also in the form of behavior and skills. The 2013 curriculum has the concept of thorough learning and talent development so that students are given space to achieve learning goals according to their respective learning speeds and abilities.

Along with improvements in the implementation of the 2013 curriculum, the change of the Minister of Education, Culture, Research and Technology in October 2019 brought changes to the direction of education in Indonesia. One month after taking office, the Minister of Education and Culture announced a policy package for independent learning in November 2019. According to the Minister of Education and Technology, freedom of learning is freedom of thought and freedom to make choices. The essence of the independent learning package policy is 1) schools, in this case, teachers are given the freedom to teach and students are given the freedom to learn independently so that creativity and development will arise, 2) teachers as drivers, namely teachers who prioritize students over anything, take actions without being asked and ordered to do what is best for students.

The practice of free learning has been carried out in many schools in this country. At the Indonesia Millennial Summit on January 17, 2020, the Minister of Education and Technology stated that in many areas many anti-mainstream schools carried out various curriculum developments to implement learning to create liberating learning, enabling students to be able to jump-start their potential and be happy in learning. This is what implements the concept of independent learning.

One of the many anti-mainstream schools, better known as alternative schools that innovate curriculum and practice independent learning in Indonesia, is the Green school. This paper will discuss the construction of an independent learning curriculum in green schools that has been implemented since the first green school, namely the Ciganjur Green school (Novo, 2020) was established in 1998 long before the Minister of Education and

Culture launched the policy of independent learning.

his immediate family/community environment, and the societal landscape fuels and steers his development...

II. Results and Discussion

According to John Dewey (2001) "education is a crucial ingredient in social and moral development", education is an effort to develop human potential to make changes in life for the better and provide solutions to the problems faced by society. To be able to present an educated society, education must be enjoyed by all members of society, but from time to time education seems to be an expensive item that can only be enjoyed by a few people with certain social status, material abilities, and certain intelligence abilities.

Dewey is known as a pioneer of progressive education which is a form of dissatisfaction with traditional education (William, 2017). Progressive education includes learning experiences and the involvement of children in social life so schools must provide an environment that supports students to develop their social abilities because according to Dewey, "Education is a process of living and not a preparation for future living." As a life process, schools and classrooms need to be designed to present real-life situations that allow students to actively participate as learning subjects. This approach is known as the 'learning by doing' theory where the teacher plans learning activities and provides instructions then students learn certain learning themes using the project-based learning method which allows students to learn many new things while working on their projects.

Dewey's theory of 'learning by doing' is supported by Freire with the concept of cultural action for conscientization (Dawson and Avoseh, 2018). Conscientization is the process of a student becoming an active learner, not just a receiver. The success of active learners is determined by the carrying capacity of the surrounding environment related to learning. Bronfenbrenner's ecological theory of human development (Parke and Clarke-Stewart, 1992) is a theory that states that a child's development is influenced by the environment around him.

.... "bioecological systems theory" to emphasize that a child's biology is a primary environment fueling her development. The interaction between factors in the child's maturing biology,

According to Bronfenbrenner, schools are in a microsistence layer, which is the layer closest to children where children have direct contact so that the various activities that children participate in at school will affect the child's development. Therefore, schools must design a curriculum that can provide space for children to develop their potential through various learning experiences that are by the stages of growth and development.

Bode, an adherent of the social reconstruction curriculum in Zuga (Zuga, 1992), argues that the social reconstruction curriculum is a continuous reconstruction of experience where learning is a series of experiences that students go through where this experience must have significance with real life. Therefore, schools must be transformed into a place that depicts a miniature of real society and the curriculum is designed so that students in the learning process not only gain knowledge but have the opportunity to develop life skills, practice collaboration, live in a social community setting, hone intelligence in dealing with and solving problems and upholding high values.

Green School is a school that uses nature as the main source and medium of learning so that learners are rich in learning experiences. Green school curriculum developed guided by the Qur'an, sunnah, and green school pillars that are character, logical thinking, leadership, and business, where learners grow and develop by their fitness and potential independently and happily in fulfilling their creative mission as the future leaders. Schiro (2017) stated, "People contain their growth capability, are the agents who must actualize their capabilities and are good essentially good in nature...". Humans can grow and develop naturally according to their innate nature, the teacher's task is to create contexts, environments, and work units that stimulate students in constructing their meaning. In 2005 UNESCO launched Education for Sustainable Development (ESD) which has four development areas, namely:

1. Pedagogy and learning environment
Using project-based and learner-centered interactive learning. Changing various

aspects of learning so that students are enabled to live what they learn and learn what they live.

2. Learning content
Integrating various problems faced by society globally and making it part of the learning stimulation so that students are sensitive to the problems faced by society and practice being solutive individuals.
3. Learning outcomes
Empowering graduates to contribute to the social dynamics that occur in society.
4. Social transformation
Achievements of Education for Sustainable Development (ESD) are focused on sustainable community development

Education for Sustainable Development (ESD) is in line with the concept of social reconstruction education because they both have the goal of producing output that can contribute and provide solutions to problems that occur in society.

Education for Sustainable Development (ESD) is translated into various learning models, one of which is the Nature-Based Learning (NBL) model (Wulansari and Sugito, 2016). Nature is the best learning media that allows students to develop their curiosity while seeking answers through observation, exploration, and experimentation so that their analytical power and logical thinking develop. The Nature-Based Learning Model (NBL) makes learning materials and learning environments in harmony with developing students' learning potential.

In general, when you hear Nature-Based Learning (NBL) what you imagine is that students learn in the open freely without being shaded by buildings known as classrooms. Nature-Based Learning (NBL) is often carried out outdoors by bringing students to study outside the classroom, it could be in the schoolyard, the surrounding community, field trips, or, expeditions. Teachers take advantage of the environment in which students are located to teach so that students can experience firsthand what is being learned. Students are encouraged to make their own choices and decisions, develop mastery of the subject matter, understand the meaning and achieve learning objectives. Nature-Based Learning (NBL) can produce an organized and structured learning experience in various dimensions of

the classroom according to the theme being studied

The learning environment in nature is proven to be effective in improving students' cognitive abilities and mental health, as shown by research from the natural connections demonstration of 40,000 students in the UK. Based on the survey, 95% of students agree that outdoor learning makes learning more enjoyable (NEC, 2016). But along with the dynamics of the school of nature, the basic prerequisites for landscape architecture of school nature have changed, Lendo Novo as the founder of Green school (2020) said,

The concept of the Green school changes with the times, in terms of architectural landscape, the prerequisite for the school location to be near rice fields, rivers, gardens or forests is not a must. In my opinion, a School of Nature can be built anywhere, in a city for example, because the notion of nature in the concept of a School of Nature is the universe and experience. So when children live in the city, the city is their nature and many things can be learned from the nature in which they are located.

The Green school curriculum is rooted in the four pillars of the Green School, namely morals, logical thinking, leadership, and business, of course, by making the national education curriculum a standard so that the Green school curriculum is independent but does not violate the national curriculum guidelines in Indonesia. In organizing learning, the Green school curriculum is designed to provide as much active learning as possible combined with experiential learning so that students become learning centers that are rich in experience and have creative and innovative thinking needed in today's digital era.

The Green school curriculum is not a curriculum that only pays attention to cognitive aspects but also pays attention to every aspect of student growth and development. Furthermore, the Green school curriculum pays attention to the involvement of parents in the learning process because parents are partners in educating children. Green school views that students must pay attention to their basic needs in the learning process, including the

psychological condition of students who are happy while participating in learning activities. If the analogy of the green school in the human body, the explanation of the pillars of the School of Nature is,

1. Morals/character, educating students' hearts/hearts so that students become obedient human beings to Allah SWT.
2. Logical thinking, educating students' brains so that students develop logical thinking for the next with the power of thought that is owned can provide benefits to Allah's creation on earth as well as prosper the earth.
3. Leadership, is analogous to the hand where students are forged their leadership spirit so that they are ready to carry out the mandate as caliphs/leaders.
4. Entrepreneurship/business, trains students to be independent, able to seek halal sustenance, and stand on their own feet.

The philosophy of the moral/character curriculum at green school is rooted in the hadith narrated by Bukhari, "Indeed I was sent to perfect good morals." So the moral curriculum at the Green school is by the nature of the sending of the Prophet Muhammad and the vision of the Green school, it is hoped that the moral curriculum will become a solid

foundation for the establishment of positive character and personality of students which will have an impact on their attitudes and actions when they become leaders in the future.

The concept of the Green school logic thinking curriculum has a goal to achieve the output of students who can think critically, forge student productivity and development, foster a spirit of student contribution to the surrounding environment, and shape students' future visions. The outputs above are then expected to achieve the outcome that the green school alumni can lead change through knowledge. The pillar of the logic of the thinking of green school refers to the Program for International Student Assessment (PISA) standard, where the parameters of students' cognitive success are literacy, numeracy, and science.

At the Green School, literacy is part of the logic of thinking curriculum with the method of reading and writing habituation to foster student interest in literacy and stimulate students to produce literacy works. The habit of reading and writing for students has a different sequence according to the stages of students' cognitive development as shown in the table below:

Table 1: Sequence of reading habit

Reading ability	Level appropriate reading content	Illustration
Early Readers: Early Age – Pre SD (>3-6 years)	<ul style="list-style-type: none"> • Children can be involved in choosing books. • Stories contain very simple information. • The story contains the value of optimism and is inspiring. • The book contains a moral message that is conveyed without being patronizing 	The illustration has a simple flow and is easy to understand (the facilitator can do a picture walk, which is to explain the flow of the illustration without the help of text)
Beginner Readers 1: Beginner elementary age (>6-9 years) – Elementary school low grade	<ul style="list-style-type: none"> • Books are selected by students independently. • The book contains very simple information. • The story contains the value of optimism, is inspiring, and develops imagination. The book contains a moral message that is conveyed without being patronizing 	<ul style="list-style-type: none"> • The illustrations have a good plot and can be imaginative. • Illustrations serve to complete the storyline.

<p>Beginner Readers 2: Beginner elementary age (>9-12 years) – Elementary high grade Books are selected by students independently.</p>	<ul style="list-style-type: none"> • The book contains very simple information • The story contains the value of optimism, is inspiring, and develops imagination. • The book contains a moral message that is conveyed without being patronizing 	<ul style="list-style-type: none"> • Illustration has all ur good and can be imaginative • Illustrations serve to complete the storyline
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The habit of reading aims to make students have a love of reading which is the key to mastering science. In the Green school, the habit of reading is complemented by the habit of writing. Writing is a way to express ideas and

thoughts to the public. Someone who likes to read and has a broad insight will have a lot of material and references for writing. At the Green school, the habit of writing is done by setting the writing sequence as follows:

Table 2: Sequence of writing habit

Level	Sequence
Grade 1	Begin writing by tracing, bolding, imitating, completing, and copying independently or by dictation.
Grade 2	<ul style="list-style-type: none"> • Beginning writing through activities to complete stories and dictation by paying attention to the use of capital letters and periods. • Start writing by describing the objects around you
Grade 3	<ul style="list-style-type: none"> • Expressing thoughts, feelings, and information in paragraph form by paying attention to spelling. • Write simple essays based on pictures using the right choice of words and sentences by paying attention to the use of spelling, capital letters, and periods.

Grade 4	<ul style="list-style-type: none"> • Expressing thoughts, feelings, and information in writing in the form of conversations and stories • Express thoughts, feelings, and information in writing in the form of an essay by paying attention to the use of spelling (capital letters, full stop, comma, etc.)
Grade 5	<ul style="list-style-type: none"> • Expressing thoughts, feelings, information, and experiences in writing in the form of essays and written dialogues. • Express thoughts, feelings, information, and facts in writing in the form of summaries and reports.
Grade 6	Expressing thoughts, feelings, and information in writing in the form of summaries, dialogues, and paraphrases.

The habit of reading and writing at green school fosters students' enjoyment of literacy works and produces literacy works in the form of observation reports, collections of stories, and books, both fiction and non-fiction. These literary works are exhibited at the Green school literacy festival which is held once a year.

The second domain of logical thinking is science. The universe layout waiting to be investigated. Through the media of science students are stimulated to think logically as well as grow their spirit of inquiry. Science activities at the Green school are not only carried out in classrooms or science laboratories but students are invited to directly observe, explore and experiment according to their thinking abilities. Learning science which for many people is considered difficult and boring, at Green school is carried out in a fun and independent method where students are given the freedom to ask questions, discuss, debate, imagine and try without worrying about making mistakes.

The science curriculum sequence at the Green school is divided into two, the small class science sequence, namely SD grades 1,2,3, and the large class sequence, namely 4,5,6 grades. The small class science sequence (grade 1,2,3) begins by stimulating the senses of students' curiosity. The curiosity of students will lead them to find out, the more they find out the more new knowledge they get. The next step is that the facilitator will guide the participants to learn to write down what they see in the scientific exploration that is being carried out. What is written is then told verbally in front of the class to train students' courage and confidence in speaking in public.

Large class Sequence Science (4,5,6) has more stages than small class Sequence Science. In large classes, the first step is to invite students to find and analyze problems that exist in the surrounding environment, then students find out about this problem in various literature to be able to find problem solution options. The next step is to try the solution that was thought about whether it works or not to solve the problem, the result of which can be

successful or it can also fail to solve the problem at hand. The goal in this sequence is not just for students to find a successful solution to the problem, but rather the process of how students go through the steps that must be passed. Whatever the results, whether they succeed in providing solutions or not, students are allowed to tell what they did and are given appreciation so that their confidence when doing the next activity will be better.

The third domain in the logic of thinking curriculum is numeracy in various learning activities not only in mathematics but also for example market day where students get numeracy stimulation in buying and selling activities, fun cooking activities contain numeracy learning, namely, when students weigh cooking ingredients, calculate cooking time and estimate the number of servings cooked by how much many people will eat the prepared food. In addition to market day and fun cooking, many other activities train students' numeracy skills in daily activities.

This learning process follows the standard learning procedure at the Green school which begins with an open mind where the facilitator after opening the class will start learning activities by providing key information related to what students will learn by telling stories, reading books, watching shows, games, singing and other activities. The second step is the facilitator and the students discuss to set up activity goals or determine the learning objectives that will be carried out. Set up activity goals are done so that in learning activities students have goals to be achieved so that they are more enthusiastic and try to achieve those goals.

The third step is the main activity or main activity. In the main learning activities, students are guided by a facilitator carrying out learning activities by the lesson plans that have been prepared by the facilitator, but students are allowed to choose several things that suit their

interests and talents. After participating in the main activity, students are taught to write activity reports or fill out fun worksheets that are useful for structuring experiences during the learning process, this stage is called structuring experience. The last step is moral reflection or reflection where students are taught to tie the meaning of the learning they have just followed.

The leadership curriculum at green school is implemented in a scouting activity called Green school Student Scout (SASS). The green school Student Scout (SASS) is a movement to educate and prepare future leaders. The leadership curriculum in Green school Student Scout (SASS) aims to foster student self-confidence, forge a healthy and strong physique, foster independence, and train conflict management in the hope that students' output can lead to change through self-awareness.

The concept of the green school business curriculum aims to form students who will be able to lead change through business starting with fostering an entrepreneurial spirit through various learning media that exposes students to exposure to real life, managing students' dependence on the support system that has been supporting their lives financially, forming an ethos. work in conducting business activities so that students understand their potential in terms of business and make personal changes to become better individuals.

The development of an independent curriculum for learning at a green school was built by taking into account the concept of Tyler's four-step model (2013). Tyler's four-step model makes it easier for curriculum teachers to develop curriculum because each step is part of the anatomy of the curriculum, namely goals, selecting learning experiences, organizing learning experiences, and evaluating learning experiences, as shown in the figure below:

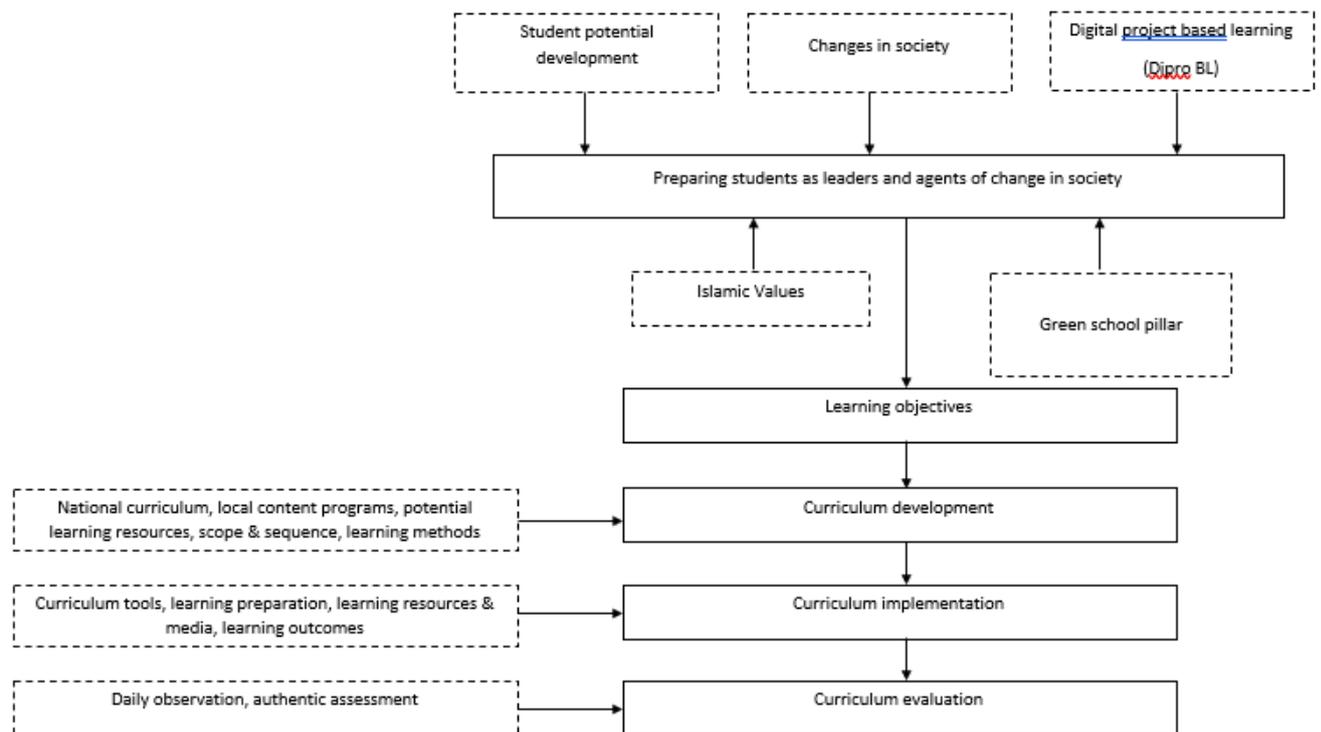


Figure 1: Independent curriculum development model

The learning objectives at Green school start with the output that the school wants to produce, which is to prepare students as leaders and agents of change in society. This learning objective cannot be achieved if learning only focuses on developing cognitive abilities, but contextual learning needs to be carried out so that students understand the dynamics of life in society by using digital project-based learning methods so that students' mastery and use of information technology are increasingly developing in supporting the development of students' potential while continuing to guided by Islamic values and the pillars of the green school.

After the learning objectives are set, then the development of an independent curriculum for learning at the Green school is carried out by taking into account the basic competencies set by the national curriculum so that the independent learning curriculum at the Green school does not violate the applicable national curriculum and then enriching it with a typical green school program, paying attention to the growth and development of children to determine scope and sequence of learning materials, create a directory of learning

resources around the school and determine appropriate learning methods.

Furthermore, the curriculum is implemented by first preparing curriculum tools, preparing learning including learning resources and learning media to get optimal learning outcomes. Curriculum evaluation is carried out by making daily observations of students while they are doing authentic learning and assessments with performance and not always using the test method or written exam.

The independent curriculum of Green school has been implemented for 23 years long before the Minister of Education and Technology announced the policy of independent learning. The Green school curriculum is a curriculum that does not change in principle but continues to evolve following the context of human life global society so that it remains relevant to the needs of today's society. Through interviews, data obtained, students at green schools feel happy and free during learning at school. They get the opportunity to choose what they will learn and how to learn it using the digital project-based learning method so that every learning becomes

meaningful and produces works that can be enjoyed and benefited the people around them.

III. Conclusion

The problem of education in Indonesia is inseparable from curriculum problems which according to education experts are the heart of the discourse and implementation of education because it determines the success or failure of educational output. When the Minister of Education and Culture announced the policy of independent learning, the green school was ready to follow the policy because the curriculum and learning at the Green school were by what was intended in the free learning policy. Learning at the Green school does not only focus on cognitive aspects but also pays attention to various aspects of student growth and development so that students can develop their potential with authentic learning outcomes that can be seen in learning performance and work performance.

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