

# The Innovative Blended Learning Model Gawi Manuntung To Increase Society 5.0 Skills In Elementary School Students

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## ABSTRACT

This study aims to produce an innovative blended learning model and describe its effectiveness in improving students' society 5.0 skills. The innovative learning model is given the acronym GAWI MANUNTUNG, which stands for Group, Analysis, Work together, Inform, Solve the problem on outdoor, Actualization of the solution, Battle games, Unity on role play, Manage conclusion, and Invent the creation. Furthermore, the Research and Development (R&D) mixed with the quasi-experiment method was used. The R&D uses the type 4D (define, design, develop and disseminate), while the quasi-experiment was utilized to determine the increase of students' society 5.0 skills. The subjects include 400 students of elementary school students in South Kalimantan, Indonesia. The research variables include critical thinking, problem-solving, creative thinking, innovation, communication, collaboration, information literacy, media literacy, technological literacy, leadership, productivity, flexibility and adaptability, initiative, social skills, and respect for differences. The tests and non-test techniques were used to collect data on students' society 5.0 skills which were analyzed qualitatively and quantitatively. The results showed that the quality evaluation of the learning model was at a very good level ( $X = 4.5$ ) ( $SD = 0.13$ ), which implies that the blended learning GAWI MANUNTUNG is valid, reliable, and feasible to be implemented. Meanwhile, there was an increase in society's 5.0 skills from the pretest to the post-test. This study concludes that the society 5.0 skills of students can be increased through the blended learning GAWI MANUNTUNG.

**Keywords:** blended learning, GAWI MANUNTUNG, society 5.0 skills, elementary school.

## INTRODUCTION

The development of society 5.0 skills in the younger generation should be conducted from elementary school age. These students within the age of 11 years have a great potential to have skills that are trained repeatedly (Agusta et al., 2018; Agusta, Suriansyah, & Setyosari, 2021; Agusta & Pratiwi, 2021; Suriansyah et al., 2021b) with adequate logical abilities. They have the potential to think abstractly, reason logically, and draw conclusions from the available information.

These skills align with the basic skills in society 5.0, which are described more broadly in this study. The skills include critical thinking, problem-solving, creative thinking, innovation, communication, collaboration, information literacy, media literacy, technological literacy, leadership, productivity, flexibility and adaptability, initiative, social skills, and respect for differences.

Schools and teachers should be able to guide and direct students in the learning process to increase

their level of competence and develop the advantages of hard & soft skills, which include 21 centuries of skills (Agusta, 2022; Rifai et al., 2021; Tabroni et al., 2022). These skills should be integrated into all subjects and holistically presented in learning activities. However, the problems in elementary schools in South Kalimantan show a weakness in developing society 5.0 skills.

Society 5.0 impacts rapid technological advancement, which needs technology literacy (Kathleen, 2016; Lestari, 2019; Sagitaa et al., 2019). Therefore, the next generation should be prepared to have the critical thinking, problem-solving, creative thinking, innovation, information literacy, media literacy, and technological literacy (Agusta & Pratiwi, 2021; Fukuyama, 2018; Ramadhani et al., 2021; Rojas et al., 2021; Societies, 2019; Suriansyah et al., 2021b). To achieve “society 5.0,” it is important to apply higher-level reasoning to emerging challenges. This era also needs the young generation who can solve social problems by utilizing various innovations. Therefore, communication, collaboration, leadership, productivity, flexibility and adaptability, initiative, social skills, and respecting differences skills in the young generations should be developed (Agusta & Pratiwi, 2021; Fukuyama, 2018; Ramadhani et al., 2021; Rojas et al., 2021; Societies, 2019; Suriansyah et al., 2021). The young generations were born in the era of the industrial revolution 4.0, where technology and the internet are used in almost every part of human interaction.

### **PROBLEM OF RESEARCH**

The importance of developing learning activities that lead to student skills is due to problems in the preparation and implementation of the process in South Kalimantan, Indonesia. Preliminary research conducted from 05 to 29 January 2022, which involved 300 primary school teachers in 13 South Kalimantan districts, found that 201 of the respondents were still using lesson plans outside skill development in the era of society 5.0. Teacher lesson plans should contain learning

objectives in the cognitive domain at the C4-C5 level, the affective domain at the A3-A5 level, and psychomotor at the P3-P5 level. However, the lesson plan only contains learning objectives at levels 1-3. Furthermore, 233 respondents stated that they had not implemented learning with various learning models. Interviews were conducted on implementing innovative learning models that develop society 5.0 skills in the learning process; 225 respondents did not know how to develop society 5.0 skills in the learning process and had not developed learning models that could train students' skills.

The problem is supported by interviews conducted from 01 to 12 February 2022 with 425 respondents, assisted by elementary school teacher education students at the Lambung Mangkurat University to explore data in all regencies/cities where students are domiciled, spread across 13 regencies and cities in South Kalimantan. Interviews focus on teaching experiences based on the development of each skill in the 5.0 society era. Of the 425 respondents, only 66 developed skills in the era of society 5.0 in the form of critical thinking skills, 54 belonged to the group of problem-solving, 43 were in creative thinking, 159 in communication skills, 178 in collaboration skills, 77 in information literacy skills, 89 were in media literacy skills, 67 were in technological literacy skills, 121 were in thinking flexibility skills, initiative skills were 88 respondents, 81 were in social skills, and skills to appreciate differences were 89 respondents.

This problem is important to research and determine the right solution because the impact has been found on students taught by the teacher. To explore the impact of the problems, a pretest was conducted on 1,300 5th grade elementary school students with at least 11 years old. The evaluation was conducted with 40 students of primary school teacher education at Lambung Mangkurat University, domiciled in 13 regencies and cities of South Kalimantan. According to the results, students who met the criteria for being skilled in each community skill of society 5.0 are

488 students for critical thinking, 321 for problem-solving, 221 for creative thinking, 459 for communication skills, 578 for collaboration skills, 277 for information literacy skills, 189 for media literacy skills, 201 for technological literacy skills, 221 for flexibility skills, 288 for initiative skills, 381 for social skills, and 389 for skills to appreciate differences. Furthermore, out of 1,300 students, less than 50% of the skills met the criteria. This implies the learning process that has not led to the development of society 5.0 skills greatly affects students' skills. The long-term impact is that the young generation is not trained to contribute optimally in solving various problems and producing innovations in the 5.0 era of society.

### RESEARCH FOCUS

Several studies have carried out the development of learning models. Developing blended learning with activities that lead to 21st-century skills includes higher-order thinking skills, information literacy, and digital literacy for students (Chaiyama, 2018, 2019). This study's learning activities are questioning, resource planning, information searching and collection, social network communication, conclusion, review of tasks/problems, group activities, discussion, evaluation, knowledge creation, and group presentation (Chaiyama, 2019). These did not include activities to form student creativity in producing alternative solutions and products to be implemented. Learning activities are also not oriented to local and contextual wisdom issues. Besides, they do not provide opportunities for students to explore knowledge outside of virtual and offline classes. This research has not developed creative thinking skills, leadership, productivity, flexibility and adaptability, initiative, social skills, or respect for differences.

Meanwhile, another similar study developed a learning model called Group Science Learning (GSL). This model can Improve the skills of Collaborative Problem Solving, Science processes, and Self-Confidence (Alfin et al., 2019). Learning activities are internet of things-

based motivation and problem orientation, collaborative problem-solving activities, presenting, Non-routine problem-solving, and evaluation. The learning steps focus on training problem-solving skills and scientific processes. However, these steps have not developed the abilities necessary for the era of civilization 5.0, such as cognitive flexibility and adaptability, initiative, leadership, productivity, social skills, and respect for diversity. The shortcomings of these two research results will be refined through the research presented in this article.

The development of the GAWI MANUNTUNG model can be an alternative innovative learning model to improve society 5.0 skills for elementary school students consisting of critical thinking, problem-solving, creative thinking, innovation, communication, collaboration, information literacy, media literacy, technological literacy, flexibility and adaptability, initiative, social skills and respect for differences. The learning model GAWI MANUNTUNG is the innovative learning model that is inspired from the motto of the south borneo society. GAWI MANUNTUNG is the Banjarese society culture means working hard until you get quality results. This study described the improvement of society 5.0 skills using the GAWI MANUNTUNG learning method for fifth-grade students of public elementary school. The main objective is to produce a quality GAWI MANUNTUNG model to improve society 5.0 skills for elementary school students and explore the effectiveness of the learning model in elementary school students in South Kalimantan, Indonesia.

### METHODOLOGY OF RESEARCH

#### General Background of Research

This research uses a combination of Research and Development (R&D) and quantitative experimental methods. The combination was selected according to the problems, namely, no learning model can complexly improve society 5.0 skills. It produces learning model products and tests the validity, reliability, and effectiveness using research and development methods. Based

on a survey conducted on 1,300 students in South Kalimantan, more than 60% have skills on the low criteria. Experimental quantitative research methods can be used to overcome this particular problem.

This study aims to produce a quality GAWI MANUNTUNG model, valid in content and design and reliable for improving society's 5.0 skills for elementary school students. The main product is the GAWI MANUNTUNG model carried out by constructing analysis theoretically and empirically, with the following steps: (1) analyzing the indicators and components of society 5.0 skills, (2) designing syntaxes based on society 5.0 skills, and (3) compiling. The syntaxes framework for the model, (4) compiling the implementation in the classroom, and (5) focused group discussion on obtaining the suggestion and revision. The final syntaxes are group, analysis, observation, wondering observation result, intensive data collection, experiment outdoors, analysis of the influence, negotiation of a solution, using technology, necessity intelligence development, task product creation, unity on presentation and role play, network tournaments, and games.

### **Sample of Research**

The research sample was 400 elementary school fifth graders, from 10 schools in South Kalimantan, Indonesia, consisting of 200 students in the experimental and control classes each. The selection was determined based on the community skills survey 5.0 in the odd semester of the 2021/2022 academic year. Furthermore, the criteria for the survey results were divided into three items, namely high, medium, and low ability. Students dominated the survey results with moderate and low abilities, while those in the high-ability group were combined with the low-ability. The grade point survey results are based on a group of high-ability students with a percentage of 11% at the top of the list. The group of moderately capable students with a percentage of 32%, while students with low abilities reached 57% at the bottom of the Grade Point list.

The participants were grade 5 elementary school students in Banjarmasin City, Banjarbaru City, Hulu Sungai Selatan Regency, Banjar Regency, and Barito Kuala Regency, with 2 schools each. Determination of the sample using cluster random sampling and selecting two classrooms from each district/city showed that 10 classrooms were selected as the control, and approximately 10 out of the 100 students have excellent skills. Furthermore, 10 classes were selected as experimental/learning classes using the GAWI MANUNTUNG model, consisting of 100 students, with 12 having high skills. The study lasted 6 months, from January to June 2022, and the duration needed to design a learning model was 2 months, followed by a trial in 10 districts and cities for 4 months and 5 experimental meetings.

### **Instrument and Procedures**

This study collects the data: 1) learning model validation, 2) effectiveness of learning model GAWI MANUNTUNG to increase society 5.0 skills, 3) response to the implementation of learning model GAWI MANUNTUNG. The analysis from four experts was used to collect data on learning model validation: a) syntaxes of learning model evaluation expert, b) learning model book guide evaluation expert, c) integration society 5.0 skills on the syntaxes of learning model assessment expert, d) implementation of every learning model syntaxes on the learning process. They will evaluate and measure learning model validity. Questionnaire items with validity between 0.05-1.00 are the valid questions used to determine the consistency index (IOC) by selecting questions.

To identify Society 5.0 skills, this study used assessment to find the score of student's skills before and after learning using GAWI MANUNTUNG according to Agusta, Suriansyah, & Setyosari (2021), Fitria et al. (2018), Supriatin et al., (2020), Agusta, Suriansyah, Hayati, et al., (2021), Agusta & Pratiwi, (2021), Suriansyah et al., (2021a) is a multiple-choice question of 50 items, with the Cronbach's alpha score 0.86.

Society 5.0 skills assessment form consists of critical thinking, problem-solving, creative thinking, innovation, communication, collaboration, information literacy, media literacy, technological literacy, flexibility and adaptability, initiative, and social skills while respecting differences were assessed using rubric score assessment. The indicator used is as follows:

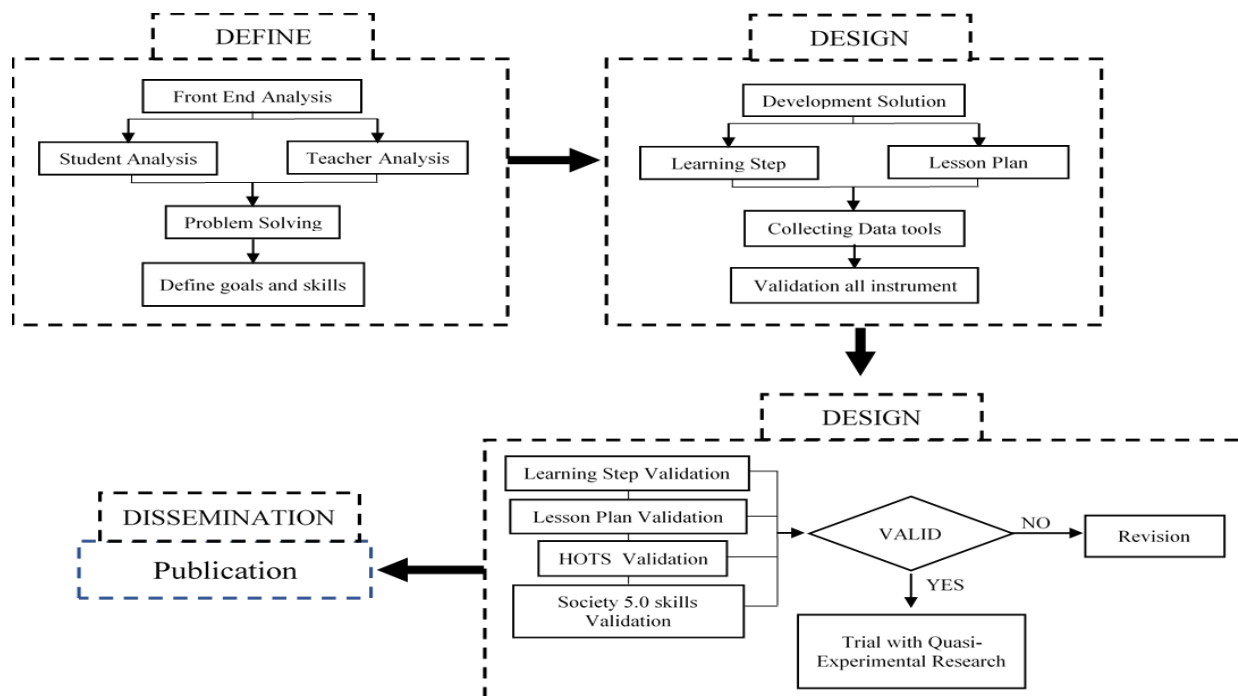
- a) **Critical Thinking:** Questioning, argument analysis, answer, and challenge, conclude the argument and solution, interpretation fact, evaluate, and distinguish the relevance of the argument (Agusta, Suriansyah, Hayati, et al., 2021; Astutik et al., 2020; Kaeksi & Setiawati, 2019; Mataniari et al., 2020; Safiah et al., 2020; Simamora et al., 2017; Suriansyah & Agusta, 2021; Vieira & Tenreiro-vieira, 2016).
- b) **Creative Thinking:** Novelty, Fluency, Flexibility, Originality, Elaboration, Abstractness (Agusta, Suriansyah, & Setyosari, 2021; Agusta & Noorhapizah, 2020; Agusta & Pratiwi, 2021; Batlolona et al., 2019; Istiyono et al., 2020; Lestari, 2019; Ms. et al., 2017; Nurdin & Setiawan, 2015; Puspitasari et al., 2018; Suriansyah et al., 2021b; Trevallion & Cusanelli, 2021; Yang et al., 2021).
- c) **Problem Solving:** the ability to show the knowledge of problems, organization and Eliminate the relevant information to solve the problem, ability to choose approaches and problem-solving methods, and solve the problem with a variety of points of view (Agusta, Suriansyah, Hayati, et al., 2021; Agusta & Pratiwi, 2021; Chaiyama, 2018, 2019; Suriansyah et al., 2021a, 2021b; Suriansyah & Agusta, 2021; Wechsler et al., 2018).
- d) **Innovative:** curious, imaginative, interested in activities that challenge him to new things, dare to take risks, and are not afraid to fail or face criticism (Agusta, Suriansyah, Hayati, et al., 2021; Agusta & Pratiwi, 2021; Hendarwati et al., 2021; Minchev & Boyanov, 2018; Monkeviciene et al., 2020; Suriansyah et al., 2021a, 2021b; Suriansyah & Agusta, 2021).
- e) **Communication:** Simple and easy-to-understand language, using clear sentences, delivering structured messages, delivering messages objectively-accurately and actually, showing messages in efficient sentences (Agusta, Suriansyah, Hayati, et al., 2021; Agusta & Pratiwi, 2021; Alhaddad et al., 2015; Monkeviciene et al., 2020; Supendi & Nurjanah, 2019; Suriansyah et al., 2021a, 2021b; Suriansyah & Agusta, 2021; Zeidler et al., 2014).
- f) **Collaboration:** contributing, working productively, being responsible, flexible, and respecting others (Agusta et al., 2018; Agusta, Suriansyah, Hayati, et al., 2021; Agusta & Pratiwi, 2021; Hendarwati et al., 2021; Kropp et al., 2016; Meadan & Monda-Amaya, 2008; Suriansyah et al., 2021a, 2021b; Suriansyah & Agusta, 2021; Unimed & 2019, n.d.).
- g) **Information Literacy:** determine the critical information needs, find the required information effectively and efficiently, evaluate the information and sources critically, using the information to understand the surrounding issues (Agusta, Suriansyah, Hayati, et al., 2021; Agusta & Pratiwi, 2021; Hanlan et al., 2013; Hariyati & Tarma, 2018; Suriansyah et al., 2021a, 2021b; Suriansyah & Agusta, 2021).
- h) **Media Literacy:** finding and accessing information and content in digital media as needed, filtering data and information as required, directing or managing the search for information and content data as needed, storing data and information in digital media (Chaiyama, 2018; Pheeraphan, 2013; Sukmayadi & Yahya, 2020).
- i) **Technological Literacy:** using computers, and the internet, watching television, listening to the radio, reading newspapers, and reading books (Chaiyama, 2019; Pheeraphan, 2013;

Sagitaa et al., 2019; Vieira & Tenreiro-vieira, 2016).

- j) **Flexibility And Adaptability:** the ability to adapt, build good relations with friends, be active in various activities, happy to get along, and be friendly to others (Agusta et al., 2018; Agusta, Suriansyah, Hayati, et al., 2021; Hilyana & Khotimah, 2021).
- k) **Initiative:** act on current opportunities to overcome obstacles, act quickly in critical situations or without complete information, anticipate problems and create opportunities, and act with a long-term orientation (Holland & Muilenburg, 2011; Hoy & Tarter, 2004; Thyssen, 2019).
- l) **Social Skills:** the ability to take turns or share, appreciate or respect, the ability to help or help, guide, control emotions, express opinions, and receive opinions (Agusta, Suriansyah, Hayati, et al., 2021; Agusta & Pratiwi, 2021; Kathleen, 2016; Setyowati et al., 2021; Suriansyah et al., 2021a, 2021b; Suriansyah & Agusta, 2021).

- m) **Respecting Differences:** caring, loving others, respecting each other, respecting other people’s differences, and respecting yourself, respecting the goodness of others, being open, receptive, and comfortable with others (Hernández-Barco et al., 2021; Mahmoud et al., 2021; Ndia et al., 2020; Pheeraphan, 2013).

Based on the problem to be solved, this study uses research and development methods with the 4-D model, consisting of defining, designing, developing, and disseminating. In addition, the quasi-experiment was used to determine the increase of students’ society 5.0 skills with five meetings that involved planning learning activities, implementing models, observing, and reflecting on learning. The variables include critical thinking, creative thinking and innovation, logical thinking, analytical thinking, problem-solving, collaboration, and social skills. The techniques are the tests and non-test procedures to collect data on students’ society 5.0 skills, which are analyzed qualitatively and quantitatively, as described below:



After all of the instruments were stated valid, the trial was conducted with quasi-experimental

research to determine the effectiveness of the learning model:

1. The scenario is to be quasi-experimental research, and one group pretest-posttest design was conducted in the following steps:
  - a. Preparation before teaching and learning process with orientation on the strategy, mapping students group, register and practice using the Zoom Meeting, Google Meet, application of learning media (Baramian App). Subsequently, the students were allowed to measure society's 5.0 skills before the study.
  - b. Conduct teaching according to the developed learning model GAWI MANUNTUNG, a combination of face-to-face and online learning activities for students as planned. Learning steps consist of group, analysis, and observation, wondering observation results, intensive data collection, doing experiments outdoor, analyzing the influence, negotiation of a solution, using technology, necessity intelligence development, task product creation, unity on presentation, and role play, network tournament, and games. Furthermore, the data were collected and evaluated during the learning process.
  - c. According to the learning plan, measurement of society 5.0 skills was conducted after completing the experiment. The test explored students' critical, creative, problem-solving, analytical, and logical thinking skills. In addition, the instrument used essays and multiple choice based on cognitive domain verbs related to critical thinking skills, creative thinking, and problem-solving starting from the fourth level.
  - d. The society 5.0 skills were measured after the students studied with the learning model GAWI MANUNTUNG.
2. Data collection from the learning process used various instruments, including events during teaching and learning by recording and assessment forms after the discussion and commenting with group members, workpieces

stored in the Google Classroom and Drive, and presentation of learning outcomes.

### Data Analysis

Quantitative descriptive analysis was used to analyze GAWI MANUNTUNG validity, the learning model effectiveness criteria, and students' responses. In data analysis, the data collections were analyzed as follows:

- a. Learning outcome: The student's work result was used to determine the average and standard deviation and translates the mean value into the learning level.
- b. Society 5.0 skills assessment is conducted by finding the mean and standard deviation and translating the result to each skill level before comparing with the criteria and interpreting the meaning.
- c. A score of the society 5.0 skills test before and after the study was analyzed by finding the mean and standard deviation and comparing the average score using a t-test in a single sample group.

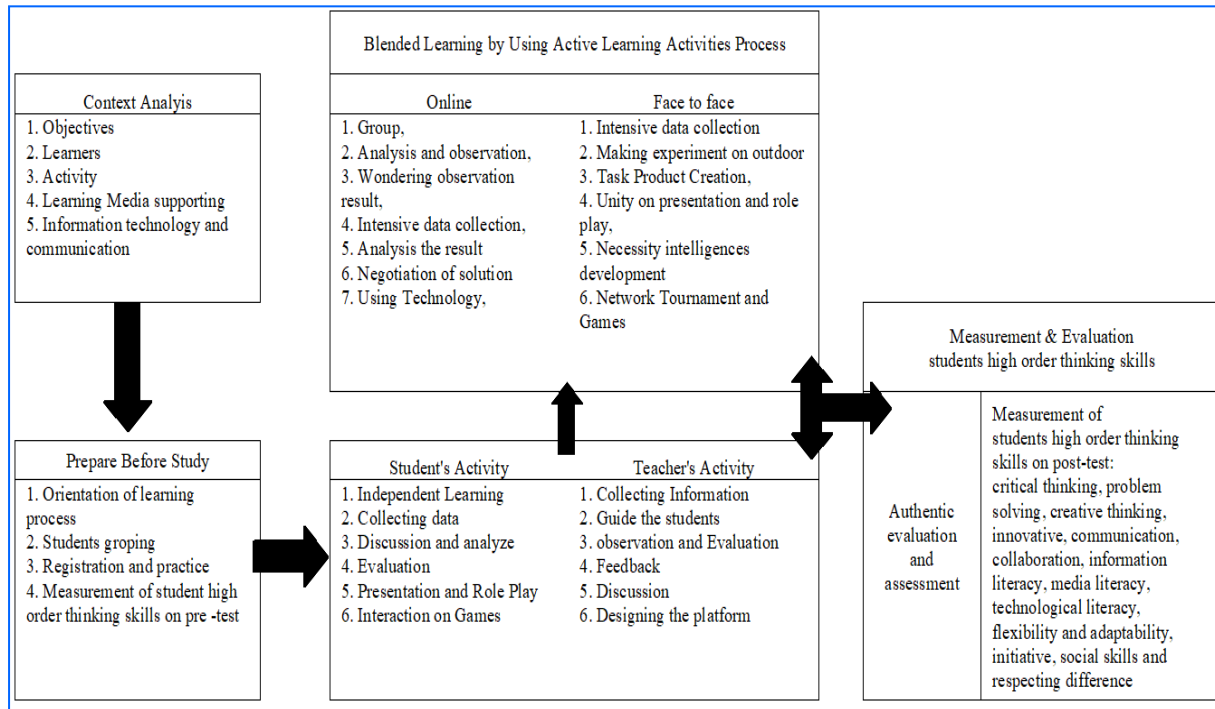
### RESULTS OF RESEARCH

The research was carried out from January to July 2022. The results are presented in three parts: **define the stage**, the result of students' and teachers' analysis, find the solution, and design the goals and the way for skills development. **Design stage**, the development solution for the problem on the learning experience in elementary school, design the learning step that can increase students' society 5.0 skills, design the lesson plan to implement the development learning model, design the instrument to prepare the field testing, evaluation, and validation of the instrument. The development stage, the learning step, the lesson plan, and the instruments are used in the field testing held in three phases that are preliminary fields (2 schools), main fields (10 schools), and operational fields (30 schools), using the quasi-experimental research. In the Development stage, the effectiveness of the blended learning model GAWI MANUNTUNG was obtained to increase students' society 5.0 skills.

**a. Blended Learning Model Development**

Product development begins with determining the substance of the learning model GAWI MANUNTUNG. The model combines virtual or online learning and face-to-face but is accompanied by activities to increase critical thinking, problem-solving, creative thinking, innovation, communication, collaboration, information literacy, media literacy, technological

literacy, flexibility, adaptability, initiative, social skills, and respecting differences. The syntaxes are group, analysis, observation, wondering observation result, intensive data collection, experiment on outdoor, analysis the result, negotiation of a solution, using technology, necessity intelligence development, task product creation, unity on presentation and role play, network tournament and games.



**Figure. 1.** The learning model GAWI MANUNTUNG to improve society 5.0 skills

Product development begins with determining the substance of the blended learning model GAWI MANUNTUNG. It combines virtual or online

learning and face-to-face but is accompanied by activities to increase society 5.0 skills, and the design is as follows:

**Table 1.** The syntaxes of blended learning model GAWI MANUNTUNG

Syntax	Implementation
Group,	The students are expected to gather their groupmates, and the activity starts with the teacher giving the apperception. The teacher will tell the topic’s background, and the storytelling method shows the picture, audio, or video.
Analysis and observation,	The teacher should provide more specific learning content to explore environmental issues associated with the South Kalimantan area. Students will be asked to analyze what will happen when the problem is not addressed. Furthermore, the best solution to the problem will be discussed.
Wondering observation result,	Students will discuss the result of the observation in the group with the best solution. Furthermore, they are directed to analyze what will happen when the



	solution is applied.
Intensive data collection,	Students are expected to work together to identify each item of question-related to trying / gathering information until they have enough information. They collect data from the environment.
Experimenting outdoor,	Students should be directed to carry out physical activities that will train them to test the results of reasoning about the solutions given. Physical activity consists of exploring things that can be found in the student's environment.
Analysis of the result,	The group is expected to investigate critically, systematically, and logically to formulate their findings confidently. The teacher should explain the Google Meet or Zoom Meeting application, allowing the students to listen in detail.
Negotiation of a solution,	Students should negotiate with friends in the group. Negotiations started with the teacher distributing number cards with different problems, and the cards were given in the Whats App application group as pictures.
Using technology,	This model needs to use technology in the learning process, and more devices can make the students enjoy the learning process.
Necessity intelligence development,	With this model, more student intelligence can be developed, and linguistic, logical-mathematic, spatial, bodily-kinesthetic, musical, interpersonal, and intrapersonal intelligence can be improved.
Task Product Creation,	The student will be allowed to conduct a project related to the topic. The projects should involve the environment as a source of equipment. Students will collect a variety of objects that can be used to create a teacher-led project
Unity on presentation and role play,	This activity is filled with illustrating events related to subject matter involving students as the main actors. The delivery of illustrations is conducted in the form of a story and provokes students' enthusiasm for practical activities through movements and words.
Network Tournament and Games	The game is designed to be flexible and not bound by rules. It is intended to provide fun activities for students even though they study online at home. Furthermore, it allows students to interact with each other using the WhatsApp, Google Meet, or Zoom Meeting applications.

### b. Blended Learning Model GAWI MANUNTUNG Quality Assessment

The quality assessment result has been compiled and validated by the **syntaxes of the learning model evaluation expert**, as presented in Table 1. It shows the validity of the learning model evaluation, including the concept, the objective, context analysis, preparation before study, and the active learning activities process. Furthermore, it indicates the validity of implementing every learning model syntax in the learning process, including online and face-to-face learning. Online

learning is group, analysis, observation, wondering observation results, intensive data collection, analysis of the result, negotiation of the solution, and using technology. In contrast, face-to-face learning is intensive data collection, experimenting outdoors, task product creation, unity on presentation and role play, necessity intelligence development, network tournament and games, measurement and evaluation, and the possibility to utilize the learning model. The construct validity was at a very good level ( $\bar{X}=4.50$ ) ( $SD = 0.13$ ) and can be used to achieve the objectives of the learning model (see Table 1).

**Table 1.** The Efficiency Investigated of Blended Learning Model GAWI MANUNTUNG Syntaxes by Experts

Evaluation Aspect	Result			
	$\bar{x}$	S.D.	Efficiency Level	Validity
The concept of the Learning Model	4.60	.548	Very Good	Valid
The objective of the Learning Model	4.70	.548	Very Good	Valid
Context Analysis	4.70	.548	Very Good	Valid
Preparation before study	4.60	.548	Very Good	Valid
Active learning activities process	4.70	.548	Very Good	Valid
Online Learning				
a. Group.	4.50	.548	Very Good	Valid
b. analysis and observation.	4.50	.548	Very Good	Valid
c. Wondering observation result.	4.50	.548	Very Good	Valid
d. Intensive data collection.	4.60	.548	Very Good	Valid
e. Analysis of the result	4.70	.548	Very Good	Valid
f. Negotiation of solution	4.50	.548	Very Good	Valid
g. Using Technology.	4.50	.548	Very Good	Valid
Face-to-face learning				
a. Intensive data collection	4.60	.548	Very Good	Valid
b. Doing experiments on outdoor	4.40	.548	Good	Valid
c. Task Product Creation.	4.40	.548	Good	Valid
d. Unity on presentation and role play.	4.50	.548	Very Good	Valid
e. Necessity intelligence development	4.20	.447	Good	Valid
f. Network Tournament and Games	4.50	.548	Very Good	Valid
g. Measurement and Evaluation	4.50	.548	Very Good	Valid
h. The possibility of utilizing the learning model	4.50	.548	Very Good	Valid
<b>Average</b>	<b>4.5</b>	<b>.130</b>	<b>Very Good</b>	Valid

The results of the learning model GAWI MANUNTUNG quality assessment guides book are presented in Table 2. This table shows the validity of the content and reliability of the learning model, including: (1) blended learning model development needs, (2) state of the art of the model, (3) the theory support, (4) planning and implementation of the model, (5) learning environment management and (6) use of advanced evaluation techniques have an average validation score of 4.50, 4.70, 4.45, 4.85, 4.15, 4.25 with very valid criteria of which  $r_{\alpha}$  is 1.00, but greater than  $r$  table hence each component is declared valid. The reliability of each component in terms

of value  $\alpha$  was 1.00, and each component is declared reliable.

Table 2 also shows that the validity of the construct and reliability of the model includes: (1) the overview, (2) theoretical and empirical support of the model, (3) planning and implementation, (4) learning environment management, (5) evaluation techniques, and (6) GSL model having an average validation score of 4.30, 4.50, 4.45, 4.55, 4.60, 4.55 with very valid criteria and  $r_{\alpha}$  of 1.00 greater than  $r$  table, hence each component is declared valid. As for the reliability of each component in terms of value  $\alpha$ , the variables are in the value of 1.00, and each component is declared reliable.

**Table 2.** Blended Learning Model GAWI MANUNTUNG Guides Book Quality Assessment

No.	Component Guides Book Quality Assessment	Validity and Reliability of Blended Learning Model GAWI MANUNTUNG				
		Validity Score	$r_{\alpha}$	Validity	$\alpha$	Reliability
A	<b>Content Validity</b>					
1	Development needs	4.50	1.00	Valid	1.00	Reliable
2	State of the art	4.70	1.00	Valid	1.00	Reliable
3	Theory Support	4.45	1.00	Valid	1.00	Reliable
4	Planning and Implementation	4.85	1.00	Valid	1.00	Reliable
5	Learning Environment Management	4.15	1.00	Valid	1.00	Reliable
6	The Use of Advanced Evaluation Techniques	4.25	1.00	Valid	1.00	Reliable
B	<b>Construct Validity</b>					
1	GSL Model Overview	4.30	1.00	Valid	1.00	Reliable
2	Theoretical and Empirical Support of the GSL Model	4.50	1.00	Valid	1.00	Reliable
3	Planning and Implementation	4.45	1.00	Valid	1.00	Reliable
4	Learning Environment Management	4.55	1.00	Valid	1.00	Reliable
5	The Use of Evaluation Techniques	4.60	1.00	Valid	1.00	Reliable
6	The Final Thought	4.55	1.00	Valid	1.00	Reliable

The result of integration society 5.0 skills on the syntaxes of learning model assessment are presented in Table 3. It shows the validity of the integration society 5.0 skills on the syntaxes of the blended learning model GAWI MANUNTUNG including critical thinking, problem-solving, creative thinking, innovation, communication, collaboration, information literacy, media literacy,

technological literacy, flexibility and adaptability, initiative, social skills and respecting differences with an average validation score of 4.30, 4.50, 4.45, 4.55, 4.60, 4.55. Furthermore, the model has very valid criteria, and  $r_{\alpha}$  is 1.00 greater than the  $r$  table, hence each component is declared valid. As for the reliability in terms of value  $\alpha$ , the variables in the value of 1.00 are declared reliable

No.	Component of Integration Society 5.0 in the Syntaxes of Blended Learning Model GAWI MANUNTUNG	Validity and Reliability of Blended Learning Model GAWI MANUNTUNG				
		Validity Score	$r_{\alpha}$	Validity	$\alpha$	Reliability
1	critical thinking	4.75	1.00	Valid	1.00	Reliable
2	problem-solving	4.70	1.00	Valid	1.00	Reliable
3	creative thinking	4.80	1.00	Valid	1.00	Reliable
4	innovative	4.85	1.00	Valid	1.00	Reliable
5	communication	4.75	1.00	Valid	1.00	Reliable
6	collaboration	4.85	1.00	Valid	1.00	Reliable
7	information literacy	4.60	1.00	Valid	1.00	Reliable
8	media literacy	4.50	1.00	Valid	1.00	Reliable
9	technological literacy	4.50	1.00	Valid	1.00	Reliable
10	flexibility and adaptability	4.30	1.00	Valid	1.00	Reliable
11	initiative	4.40	1.00	Valid	1.00	Reliable
12	social skills	4.60	1.00	Valid	1.00	Reliable
13	respecting differences	4.55	1.00	Valid	1.00	Reliable



Critical Thinking	5	2.27	.999	3.79	.891	-15.434	.000
Problem-Solving	6	2.64	.532	3.72	.752	-15.832	.000
Creative Thinking	5	2.65	.679	3.76	.712	-14.102	.000
Innovative	4	2.55	.465	3.68	.794	-17.954	.000
Communication	5	2.57	.588	3.80	.712	-14.699	.000
Collaboration	5	2.88	.532	3.79	.891	-15.832	.000
Information Literacy	5	2.86	.679	3.72	.752	-14.102	.000
Media Literacy	5	2.98	.532	3.56	.794	-15.832	.000
Technological Literacy	5	2.65	.532	3.78	.712	-17.954	.000
Flexibility and Adaptability	5	2.77	.532	3.80	.712	-16.432	.000
Initiative	4	2.65	.679	3.88	.794	-15.162	.000
Social Skills	5	3.04	.588	3.81	.794	-14.679	.000
Respecting Differences	4	2.22	.532	3.79	.712	-15.271	.000

The “high” category dominates the increase in the value of skills because the learning provides very high motivation. The learning process is not dominated by the transfer of knowledge in the form of theory. The students are brought to participate in learning with various collaborative and independent information mining activities. They are also led to explore various problems around them to memorize theories that make learning less meaningful.

This study’s critical thinking, problem-solving, and initiative also increased significantly. This is because learning is designed with directions following indicators of critical thinking skills. Students are also guided to intensively conduct the critical thinking, problem-solving, and initiative process. They are guided to recognize different ways of critically analyzing and developing questions and answers from multiple perspectives. Under the leadership of teachers, students are challenged to investigate in-depth knowledge and examine diverse problems and their solutions from multiple perspectives.

The learning model also aims to increase creative thinking, innovation, flexibility and adaptability,

and communication. The result can be seen from the percentage gain with the high category dominating. Learning provides clear and detailed narrative directions for various activities, making students less dependent. A very encouraging condition was that at the last meeting, students explored alternative problem solving through projects, in this activity, without teacher guidance. They are very enthusiastic about contributing creative thinking to solve current problems and thoroughly explaining the completed projects.

The aspects important in this study are information, media, and technological literacy, which also increased significantly. This is because all indicators of these variables are implemented simultaneously and developed through the guidance of teachers and students. Meanwhile, the students feel challenged to explore the problems and find alternative solutions with friends in the group by using a computer to browse related information from the internet and social media. Students’ abilities should be reinforced to explore and solve problems using technology, even though the results are not perfect.

Another aspect that continues to increase is social skills, respecting differences, and collaboration. A significant increase occurred quickly because it was conducted with intensive guidance from teachers and students. Learning is directed at extracting information about problems in the surrounding environment. Therefore, they are respected in the situation to increase their social skills, collaboration, and respecting differences.

## DISCUSSION

The GAWI MANUNTUNG blended learning model is a solution to overcome problems during the COVID-19 pandemic. It is an alternative solution to increase students' skills even though learning is only conducted online. This condition is consistent with the research results of Noorhapizah, Agusta, and Pratiwi (2020), Sarwar et.al (2021), where the learning process should run optimally even though teachers and students interact online. The GAWI MANUNTUNG blended learning model is also an alternative solution for developing student skills used as a reference. According to research by Noorhapizah, Agusta, and Pratiwi, most teachers have yet to master the skills needed to package learning containing thinking skills (Agusta & Noorhapizah, 2020; Agusta & Pratiwi, 2021; Agusta & Sa'dijah, 2021; Sarwar et al., 2021).

The model is based on the demand to produce elementary school graduates with every skill in society 5.0 and who can think at a higher level. Higher-order thinking skills have an impact on student's ability to think deeply and consider various solutions quickly, precisely, and accurately (Agusta, Suriansyah, & Setyosari, 2021; Minchev & Boyanov, 2018; Pereira et al., 2020; Rahmiwati et al., 2022; Rifai et al., 2021; Supendi & Nurjanah, 2019; Suriansyah & Agusta, 2021). Students who are trained to think at a higher level will have speed and accuracy in solving problems, able to argue or communicate with various points of view to solve problems (Agusta, Suriansyah, Hayati, et al., 2021; Amelia et al., 2019; Hafidz et al., 2019; Suriansyah et al., 2021b; Suriansyah & Agusta, 2021).

Therefore, the learning paradigm should change from conventional learning emphasizing lower-order thinking skills to higher-order. The blended learning GAWI MANUNTUNG syntaxes are designed to increase every societal skill 5.0. Students should gather their friends in the group before beginning their activity. Meanwhile, the teacher is expected to provide the topic's background, and the storytelling method is used to show the picture, audio, or video. The activity in the group increases students' critical thinking, collaboration, and communication. This provides appropriate responses according to the instructions requested, and students have a role in assessing the information and problems provided (Agusta, Suriansyah, & Setyosari, 2021; Agusta, Suriansyah, Hayati, et al., 2021; Atikoh & Prasetyo, 2018; Chaiyama, 2018, 2019; Kaeksi & Setiawati, 2019). This syntax can also improve initiative and hard work skills. Students are trained to listen to instructions and show their best performance to achieve goals according to expectations (Holland & Muilenburg, 2011; Thyssen, 2019).

The next activity on this blended learning model is analysis and observation. The teacher is expected to provide more specific learning content to explore environmental issues associated with the South Kalimantan area. The students should be asked to analyze what will happen when solutions are not provided. This activity can increase critical thinking, problem-solving, and media literacy, and the skill is the most important part of the learning process. It is because critical thinking and problem solving will create young people who can interpret, analyze, conclude, evaluate, explain and self-regulate (self-efficacy) in education and general fields (Duran, 2016; Facione, 2015; Khwaengmek et al., 2021; Leasa et al., 2020; Mataniari et al., 2020; Sinprakob & Songkram, 2015; Wechsler et al., 2018). This activity also increases students' media literacy because they are directed to explore environmental issues contextually by exploring more information from

the internet and media (Agusta, SURIANSYAH, & SETYOSARI, 2021; SURIANSYAH & AGUSTA, 2021).

Meanwhile, logical and analytical thinking skills are developed in observing, analyzing, and conducting experiments outdoors. This is because the 2 activities will train students to give and receive information, express opinions or arguments in groups, respond to statements from friends during discussions, explain what has been conducted in groups, receive information provided by group friends properly, and give a positive response despite differences of opinion (Agusta et al., 2018; Arifuddin, 2020; Supendi & Nurjanah, 2019; Syawaludin et al., 2022; Zubaidah et al., 2017). The result is in line with the development of analytical thinking skills.

Students are directed to conduct the wondering observation and discuss the result in the group before looking for the solution to the problem. Furthermore, they will be directed to analyze what will happen when the solution is applied. Wondering observation result activities have the potential to increase students' communication skills through giving and receiving information, conveying opinions or arguments in groups, responding to statements from friends in groups during discussions, explaining what will and has been conducted in groups, receiving information provided by friends (Fredrick, 2008; Ismah et al., 2020; Supendi & Nurjanah, 2019). Students are directed to analyze what will happen when the solution is applied (Hernández-Barco et al., 2021; Holland & Muilenburg, 2011; Thyssen, 2019).

After the students collect in-depth information on the problem and the impact on wondering observation, students are directed to conduct intensive data collection. They will work together to identify each item of question-related to gather information. The teacher guides in processing data with analysis using interview techniques and seeking information from various media to improve information literacy in groups (Berberoglu, 2015; Hariyati & Tarma, 2018; Pheeraphan, 2013). This skill will affect the learning process's effectiveness and efficiency and

increase respect for differences when exchanging opinions to get the most appropriate data (Piatkowski, 2020; Saputra et al., 2019). This syntax can also improve critical thinking and solve problems in data processing because students are trained to analyze and observe real-life events (Changwong et al., 2018; Supendi & Nurjanah, 2019; Yang et al., 2021). In this activity, students collect the investigation results and are responsible for intensive data processing by students (Orson et al., 2020).

The next activity is Experimenting outdoors, and students will be directed to conduct physical activities to test the results of reasoning about the solutions given. Physical activity consists of exploring things that can be found in the student's environment. In addition to improving critical thinking skills, the development of the model also has the advantage of improving students' creative thinking and problem-solving skills. Creativity is one of the important skills the younger generation should possess in the future. The skills to be developed in the future are critical thinking, creativity, cooperation, and communication (Aguayo et al., 2021; Agusta, 2018; Agusta, SURIANSYAH, & SETYOSARI, 2021; Agusta, SURIANSYAH, HAYATI, et al., 2021; Agusta & Pratiwi, 2021; Batlolona et al., 2019; Leasa et al., 2020; Monkeviciene et al., 2020; Noorhapizah et al., 2021; Supendi & Nurjanah, 2019). The learning process uses activity designs that can train students' creativity and increase experiments outdoors by opening students' horizons by presenting a problem in everyday life. The efforts align with previous research that poses various problems that can increase students' creativity. This is because it is conducted by broadly developing students' ideas through displaying problems (Batlolona et al., 2019; Chaiyama, 2018; Eviyanti et al., 2017; Nio et al., 2017; Zubaidah et al., 2017).

The activity continues with the analysis of the result. The group will investigate critically, systematically, and logically to formulate their things confidently. The teacher will explain the

Google Meet or Zoom Meeting application, hence all students can listen to detailed directions from the teacher. This is in line with previous research, where problem-solving skills can be developed by asking questions or allowing students to make questions from observations (Koppe et al., 2015; Rahmiwati et al., 2022; Supendi & Nurjanah, 2019), providing opportunities for students to explore problems from observations (Rahmiwati et al., 2022), opens students' horizons using concrete and diverse objects (Margulieux & Catrambone, 2016), uses the surrounding environment as an object of observation (Agusta, Suriansyah, Hayati, et al., 2021; Suriansyah & Agusta, 2021; Zimmerman et al., 2019).

In the next activity, students are directed to a Negotiation of a solution in the group. Negotiations started with the teacher distributing number cards with different problems, and the cards were given in the WhatsApp application group as pictures. This activity can increase students' social skills and respecting differences (Haron et al., 2021; Nawai et al., 2020). Teachers can direct students by asking open-ended questions related to experimental activities to the whole class, and this activity can train critical thinking (Agusta, Suriansyah, & Setyosari, 2021; Agusta & Pratiwi, 2021; Demiral & Cepni, 2018; Prayogi et al., 2018; Suriansyah et al., 2021a). Students can apply different thinking styles in analyzing problems and bringing solutions to improve innovative skills (Minchev & Boyanov, 2018; Monkeviciene et al., 2020). This activity is also designed by arranging students in pairs to analyze the questions or problems given by the teacher within a certain time. Students record the solutions to their thoughts, and this activity will practice initiative skills (Agusta et al., 2018; Thyssen, 2019). It is closed by presenting the results of thinking in front of the class, and students are trained to express solutions and defend opinions. This activity can practice the skills of respecting differences (Piatkowski, 2020; Saputra et al., 2019).

The model should use technology in the learning process to make the students enjoy themselves and be happy. The development of GAWI MANUNTUNG blended learning is one of the strategies to practice problem-solving skills using mobile learning technology. This condition is in line with the results of research, where using mobile learning can develop technology literacy, flexibility, adaptability, and critical thinking (Agusta, Suriansyah, & Setyosari, 2021; Chaiyama, 2019; Nurdin & Setiawan, 2015; Pheeraphan, 2013; Winarti et al., 2019). The blended learning model also trains students to interpret, analyze, conclude, evaluate, explain and self-regulate in education and general fields (Agusta, 2018; Hernández-Barco et al., 2021).

The activity is continued in necessity intelligence development and task product creation activities. On the necessity of intelligence development, more student intelligence can be developed with linguistic, logical-mathematic, spatial, bodily-kinesthetic, musical, interpersonal, and intrapersonal intelligence. The students will be delivered to conduct a related project involving the environment as a source of equipment. Various objects that can be used to create a teacher-led project will also be collected. This activity can potentially develop student creativity because the learning process provides experience for students to create projects related to the topic studied. Students' creativity is trained through creating solution-solving products and meaningful products utilized in everyday life. Similar activities have been conducted in previous studies, with the final results showing that presenting simple project activities can develop students' creativity. They are free to express their skills and find the latest solutions or modifications to existing solutions (Baran et al., 2021; Karbono & Retnawati, 2020; Nurhajarurahmah, 2021; Rojas et al., 2021; Supendi & Nurjanah, 2019).

The task product creation activity will familiarize students with acquiring knowledge through solving problems by utilizing the surrounding environment learning. Through this activity,



students will also have scientific literacy skills (Agusta et al., 2018; Astutik et al., 2020; Nursofah et al., 2018; Zimmerman et al., 2019).

Other skills developed are logical and analytical thinking skills, and one of the learning steps is analysis and observation. In this activity, the teacher will provide learning content more specific to exploring environmental issues related to the South Kalimantan area. The students will be asked to analyze what will happen when the problem is left unchecked. Therefore, they are taught to consider future possibilities to develop critical thinking skills (Agusta, Suriansyah, & Setyosari, 2021; Agusta, Suriansyah, Hayati, et al., 2021; Demiral & Cepni, 2018; Sholiah et al., 2020; Syawaludin et al., 2022). The students will also be directed to analyze what will happen when the solution is applied. This activity will train students' logical thinking skills (Agusta, Suriansyah, Hayati, et al., 2021; Changwong et al., 2018; Seventika et al., 2018; Sholiah et al., 2020).

The same activity will also train students to collaborate in identifying each question item related to the activity of digging up information. Students will administer the information obtained, hone knowledge, and express the meaning of the process of digging information on physical activity. This activity will also train students' independence to grow self-confidence (Darmawan et al., 2019; Muhlisin, 2019; Muhlisin et al., 2018; Wechsler et al., 2018; Zeidler et al., 2014).

The activity was continued with unity in presentation and role-play activities. This activity is filled with illustrating events related to the subject matter involving students. The presentation of illustrations is conducted in the form of stories and provokes students' enthusiasm for practical activities through movement and words. The teacher prepares a scenario before the learning to clarify the material given to students. The group representatives have given the teacher information on the learning material. This activity raises students' awareness of the environment because the role-play content is expected to respond to damage. Therefore, students can weigh

the best attitude to respect the environment (Lince, 2016; Noorhapizah et al., 2021; Suriansyah & Agusta, 2021; Yasida, 2020).

Students are invited to perform Network Tournament and Games activities designed to be flexible and not bound by rules. The game is intended to provide fun activities for students even though they study online at home. It allows students to interact with each other using the WhatsApp, Google Meet, or Zoom Meeting applications. This activity fosters students' motivation and enthusiasm for learning. The end of learning is packed with fun activities to increase the interest of students (Haron et al., 2021; Hastuti, 2020; Kaeksi & Setiawati, 2019; L.Parisu et al., 2020; Putranta et al., 2021).

## CONCLUSIONS

Based on the results and discussion, it can be concluded that: (1) the blended learning model GAWI MANUNTUNG is feasible to use in the learning process, and (2) it can increase critical thinking, problem-solving, creative thinking, innovation, communication, collaboration, information literacy, media literacy, technological literacy, flexibility and adaptability, initiative, and social skills of students.

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