



## The role of integrated physics learning supplementary of Jamala Pond as a local wisdom in strengthening student's communication skill

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### ABSTRACT

This research is a case study research that aims to describe the profile of students' communication skills through the integrated physics learning supplement book of local wisdom in SMA Negeri 8 Maros. The case was the low level of communication skills of students triggered by a supplement book compiled by referring to local wisdom, which is the community's belief in the efficacy of Jamala Pond located in Bantimurung Bulusaraung National Park, Maros Regency. The supplement book was developed by using Four-D model development stages (Define, Design, Develop, and Disseminate) validation by an expert. It was obtained that it is feasible to be tested at 79% content validity (Cv). Based on Gregory's analysis it was found valid and can be used after revisions. The results of the assessment of the teacher's perspective questionnaire showed that the aspects of content, presentation, and language feasibility were in the very good score range, the average percentage of interpretation was 87.32%. Data analysis techniques, reducing data, displaying data, and drawing conclusions so that the communication profile of students shows that the communication that occurs between the supplement book writer (communicator) to students (communicant) is in an effective situation. Meanwhile, the communication that occurs between students (communicators) and their peers (communicants) is in an ineffective level.

**Keywords:** Jamala pond; local wisdom; communication; supplementary book

## 1. INTRODUCTION

One form of the implementation of the 2013 revision of the 2018 curriculum explains the Regulation of the Minister of Education and Culture of the Republic of Indonesia Number 20 of 2018 concerning Strengthening Character Education in Formal Education Units article 1 paragraph 1: Strengthening Character Education, hereinafter abbreviated as PPK, is an educational movement under the responsibility of the education unit to strengthen the character of students through harmonization of heart, feeling, thought, and sports with involvement and collaboration between educational units, families, and society as part of the National Movement for the Mental Revolution (GNRM). Continued in article 2, namely: PPK is implemented by applying Pancasila values in character education, especially including religious values, honesty, tolerance, discipline, hard work, creativity, independence, democratic, curiosity, national spirit, love for the country, respect for achievement, communicative, love peace, love to read, care about the environment, care socially, and be responsible. (Permendikbud, 2018:2-3).

Communicative is one of the characters that encourages humans to communicate with other humans. According to (Hafied Cangara, 2008: 1-2) states that as social beings humans always want to connect with other humans. He wants to know the surrounding environment and even wants to know what is happening inside him. This curiosity forces humans to communicate. In relation to the implementation of this KDP, efforts are made so that the aspects of students' communication skills must improve. To fulfill this, an alternative is needed to support classroom learning. The ability of students who are still lacking in understanding the material provided by educators can be assisted by books that are supplements. This book is only in addition to enriching the knowledge of physics material related to the local wisdom of the community.

We can turn to the holy book of the Qur'an, there we find that in fact, God was the first to teach humans to communicate as in QS. Ar-Rahman: 1-4 which means "God is merciful who teaches the Qur'an. He created man, who taught him to be articulate", In surah Al-Baqarah: 31-33 Allah said "And He taught Adam the names (of things) in their entirety, then presented them to the Angels and said: "Name Me the names of these things if you are true of the righteous!". They answered: "Most Holy Thou, we know nothing but what You have taught us; verily thou art the All-Knowing, All-Wise". God said, "Adam, tell them the names of these things." So when he had told them the names of these things, God said, "Have I not told you that verily I know the secrets of heaven and earth, and know what you give birth to, and what you hide?"

The integrated physics learning supplement book of local wisdom is built in accordance with natural phenomena or phenomena that occur in the Bantimurung community, which is believed to have a belief in the efficacy of the jamala pool in Bantimurung Bulusaraung National Park, Maros Regency. This tourism object can be said to be an object of local wisdom because based on the history of the existence of the plural pool, it provides space so that these signs or phenomena can be studied outside the classroom in assessing its physical aspects. Exploration, elaboration, and confirmation activities as the basis for the preparation of a supplement book in order to strengthen one of the characters, namely the communication skills of students because communication is one of the 21st-century skills to be achieved.

Therefore, the researcher hopes that the integrated physics learning supplement book of local wisdom can be an alternative in the learning process in class and outside the classroom to students so that the learning experience of these students is used as a basis for conveying the information they have received. The purpose of this study was to describe the profile of students' communication skills through the integrated physics learning supplement book of local wisdom at SMA Negeri 8 Maros.

## **2. METHODS**

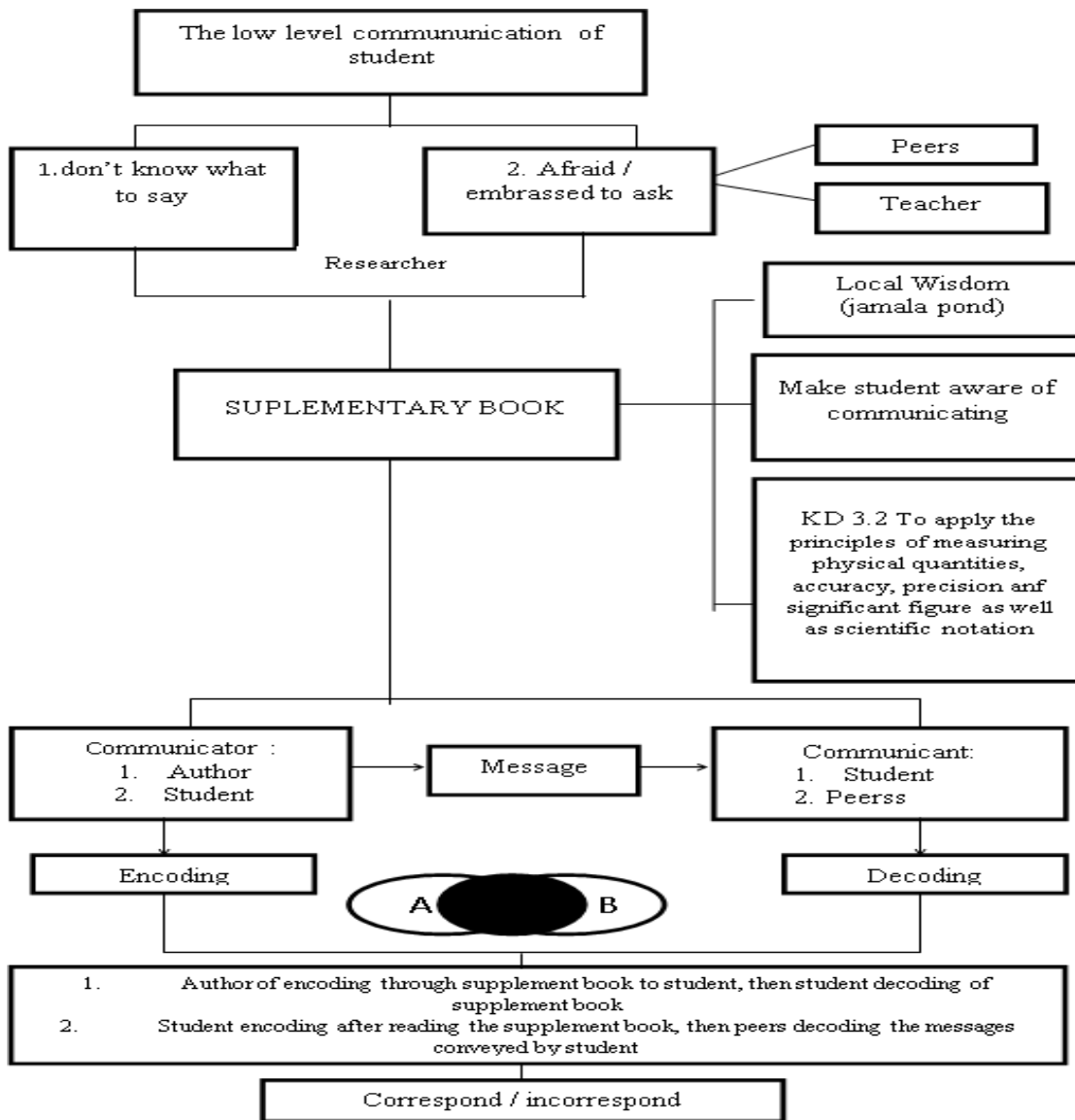
The method used in this research is a case study. This research begins with a case regarding one of the students' weak characters. The research aims to describe more in that case, so that a product in the form of a supplement book will be triggered first. This research took place at SMA Negeri 8 Maros and in Bantimurung Bulusaraung National Park, Simbang District, Maros Regency for 5 months.

The source of data in this study is 1 student of class XI MIPA II SMA Negeri 8 Maros who is weak in communicating. The instrument used in this study was a human instrument, so the data collection techniques used were observation, interviews, documentation, and questionnaires given to practitioners/teachers to provide an assessment of the supplement book.

According to Miles and Huberman in Sugiyono (2017: 246), data analysis in qualitative research goes through 3 stages, namely data reduction, data display and conclusion drawing / verification. In data reduction, which is obtained during the research process will be selected first so that it will describe what the researcher will reveal, so that it will get a clear picture and more conical to the original purpose of the study. The presentation of data is presented in a narrative way so that researchers can provide meaning, interpretation, argument, compare data and look for relationships between other components so that conclusions can be drawn.

### 3. RESULTS AND DISCUSSION

The presence of a supplement book begins with several stages starting from the initial observation of finding students who are weak in communicating, exploring the causes of students who are weak in communicating, and developing a physics supplement book where the book contains an explanation of the local wisdom of the jamala pool located in Bantimurung Bulusaraung National Park. through Measurement material in physics. Through this material, the researcher wrote sentences in order to make communication skills aware through measurement principles. The following is the schematic of the research achievements that have been carried out as follows:



Research Achievement Scheme

Supplement books that have been developed are given to students who are weak in communication. The reason for the weak communication of students is due to not knowing what to say, and feeling afraid and ashamed of teachers and their peers to convey information. So to overcome this, researchers want to make the learning experience of students a tool to strengthen students' communication skills by providing supplementary books. Supplement books are expected to be an alternative for students in order to encourage and strengthen students' communication skills.

This book is a form of verbal communication which is poured into a written form which contains a study of one of the local keraifan in Maros Regency, namely the jamala pool in Bantimurung National Park by revealing the physical meaning contained therein. The basic competencies contained in the supplement book, namely KD 3.2, apply the principles of measuring physical quantities, accuracy, accuracy, and important figures as well as scientific notation. One of the efforts made by researchers is to make students communicate through measurement principles. Physics learning supplement books are packaged in the form of exploration, elaboration, and confirmation activities to form a communication situation including the author of the book acting as a communicator, students acting as communicators and communicators, and peers acting as communicants.

Through the basic principles of communication, the author of the book encodes by presenting supplementary books to students, then the students decode the supplement book and then the students do the encoding after reading the supplement book, then the students' peers decode the messages delivered by students who are weak in communicating. With this experiential framework is formed a conformity of information between the author, students who are weak in communicating and peers of students who indicate that the occurrence of effective and ineffective communication. From these results, the researcher describes that the communication that occurs can be seen from the conformity of information between the communicator and the communicant, namely first, the suitability of information between the author and students which shows that there are 6 of the 12 core messages from the author's encoding to the results of the students' decoding, namely the location of the jamala pond, the properties of jamala pond water, the reason behind the benefits of water in the jamala pool, the similarity of information on the water content of the jamala pool in Bantimurung, Maros Regency with hot water baths in hot water baths in Wukirhajo Village, Parengan District, Tuban Regency, East Java Province, measuring the density of water in the jamala pond, knowing the parts of the Ohaus balance and their functions, how to determine the NST of the ohaus balance and its uncertainty, and how to measure the mass of pool water and the volume of water using a measuring cup, determine the density of the water in the jamala pond through equations and data yields. Second, the suitability of message information by students shows the addition and reduction of information conveyed to

the peers of students. Third, the suitability of information between students and peers, there are only 3 of the 12 core messages received by peers, namely knowledge about the efficacy of the jamala pool, but the process of obtaining the density of the jamala pool water is not understood by the peers of the students.

Based on the research that has been done, it can be concluded that to describe the profile of students' communication skills, students are given a supplementary book on integrated physics learning local wisdom based on the basic principles of communication theory showing that the communication that occurs between the supplement book writer (communicator) to the student (communicant) be in a situation of effective communication. Meanwhile, the communication that occurs between students (communicators) and their peers (communicants) is at an ineffective level.

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