



Students' and Teachers' Perception on the Development of Local Wisdom Module to Increase Student Learning Outcome

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Abstract: In this study we focus to analyze the teacher and student perception about the development of the local wisdom module, especially to increase learning outcome. The research method is descriptive and qualitative by used surveys to collect data. Data collection was carried out by distributing questionnaires to 2 elementary school teacher and to 20 student 5th grade students, SDN 3 Langkai in Palangkaraya city, Central Kalimantan. The collected data were analyzed using descriptive analysis. The results of this research showed that teachers have never developed their own teaching materials based on local potential in Central Kalimantan, while students are of the opinion that the use of teaching materials based on local potential will make learning activities more interesting. This research concluded that the development of local wisdom module especially about batang garing very important thing to do based on teacher and student perception and important to continue in the next research to develop the module.

Keywords: Batang garing; Central Kalimantan; Local wisdom; Student learning outcome

Introduction

The 21st century often lead to skills that need to be mastered by students to be able to face challenges in the future, various approach need to be offered to increase the 21st century skills (Taar & Palojoki, 2022; Siami et al., 2023). Innovative learning approaches from teachers who play an important role in the education.

To face challenges in the 21st century, learning activities must lead to student-centered activities by building interaction between teacher and student (Hähkiöniemi et al., 2022). Education in the 21st century also refers to the phenomenon of education including globalization of education, culture and national character (Ulfah et al., 2023).

By building interaction between teacher and student can make learning activities become more meaningful. Meaningful experience in learning process will make the student remember the material delivered

so that it will impact on the result of students' learning outcomes (Fitriani et al., 2016).

Creating meaningful learning activities can be done by forming interactive activities between teachers and students, orally or through other activities (Omland et al., 2022). But in essence, whatever approach is applied, all aim to be able to create learning activities that are meaningful for students, especially meaningful so that they can help improve student skills, which is basically seen from the achievement of student learning outcomes, where data on student learning outcomes can be obtained through written tests which cover the cognitive and affective aspects of integrated learning (Halimah et al., 2023).

Taking a behaviorist theory perspective, learning activities also need to be related to real environment, especially a place to live around and everyday phenomena (Mulatsih et al., 2023). Phenomena related to plants, animals and culture that exist in the environment around students that called local wisdom.

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Local wisdom actually can implemented in learning activities because related to education activities (Risdianto et al., 2020), and can make the students easier to understanding the material because the contents of the material are related directly to the student's daily life (Andriana et al., 2017).

In fact, local wisdom can connecting the human with the surrounding environment where enable leaners to learn and connect then contribute to the sustainable creation of new knowledge (Kwangmuang et al., 2021). That formed based on the local community experiences or habits of the community (Misbah et al., 2020).

The application of local wisdom-based learning activities is very important. The local wisdom can help stabilize and conserve the cultures of Indonesia from the globalization invasion where people's everyday social activities related to local wisdom (Pesurnay, 2018). Then the application of local wisdom-based learning activities can provide many benefits.

According to Bulkani et al. (2022), Marsya et al. (2023), Nurmila et al. (2023), and Zannah et al. (2023) learning resources in the form of local wisdom-based learning can help improve student learning outcomes. Moreover, learning activities based on local wisdom is effective to improve science process skill (Dwianto et al., 2017), can developing student character (Suastra et al., 2017) and developing student problem solving abilities (Novitha & Suhartini, 2023).

Indonesia, especially in central Kalimantan has a various local wisdom in the form of plant, animal or culture. Local wisdom in the form of plants including *Diplazium esculentum* is a local plant that used by dayak people as a traditional medicine to treat acne in central Kalimantan, Indonesia (Zannah et al, 2017), *Melastoma malabatricum* that potential as a source of nutrition (Zannah et al., 2022), and local wisdom in the form of culture (Wardani et al., 2020). This various local wisdom will certainly be very beneficial if used as learning resources, especially at the elementary school.

However, developing a learning source based on local wisdom especially local wisdom form central Kalimantan become a major challenge in elementary school. Based on this fact, initial assumptions estimate that it is important to develop learning resources in the form of modules that integrate the local wisdom of Central Kalimantan. The purpose of this study was to analyze the teacher and student perception about the development of the local wisdom module, especially to increase learning outcome.

Method

The method of this research is a descriptive and qualitative by used surveys to collect data. The research was

conducted at elementary school in Central Kalimantan, Palangkaraya city. The research respondents were 2 teachers and 20 elementary school students in 5th grade, SDN 3 Langkai.

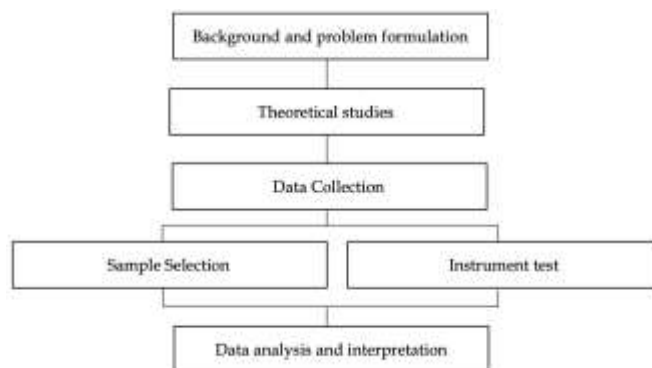


Figure 1. Research flow chart

The research starts with quantitative research and continues with qualitative research following an explanatory strategy. In this research, the instrument that used is questionnaire to analyze the student and teacher perceptions about batang garing's module that could improve student learning outcome.

Data analysis techniques that used in this study are data collection, data reduction, data display and verification (Mohajan, 2018). Data collection began with researchers distributing questionnaires to 2 teacher respondents and 20 elementary school students determined purposefully.

Then, the data obtained from student and teacher's questionnaire were analyzed by grouping the answers from the teacher and student respondents based on the questionnaire questions, then give a score to each answer according to the scoring criteria and then calculate the total score of the answer.

The questionnaire used the Guttman scale with answer choices "Yes" or "No". Answers "Yes" get a score of "1" and answers "No" not get a score or "0". All answers are then calculated based on percentage (Rosaria et al., 2023).

Result and Discussion

The results of this research found several facts regarding the perceptions of teachers and elementary school students regarding the local wisdom base module which has the potential to improve student learning outcomes, after distributing questionnaires to 20 student 5th grade elementary school students. The results shown in table 1.

Based on table 1, the conclusion is most students stated that the use of examples based on something typical in Central Kalimantan was important to use in

learning activities. All of student state that they don't know with "Batang Garing" plant as a one of the endemic plant form central Kalimantan. All of student state that they don't know the "Batang Garing" plant, even the history for the dayak community. These

findings form the basis that teachers need to use learning resources that are closely related to students' daily lives, so that the material presented can be stored in long-term memory. One of them is using various local potentials as learning resources.

Table 1. The Results of Interpretation of Student's Perception

Question	Percentage (%)	
	Yes	No
When learning activities in class, has your teacher ever invited you to study outside the room by using the surrounding environment as a learning resource?	0	100
In your opinion, is it necessary for teachers to carry out learning activities by using the surrounding environment as a learning resource?	80	20
When studying in class, has your teacher ever used a book or module as a learning resource?	70	30
As far as you know, has the teacher ever used learning resources in the form of modules written by your own teacher during learning activities in class?	0	100
Has your teacher ever explained about something that is unique from Central Kalimantan in the form of animals, plants and culture when studying in class?	10	90
In your opinion, do you need to know about the various unique local potentials that exist in Central Kalimantan in the form of plants or animals?	100	0
When studying material with the theme "Plants around me", do you think the teacher needs to convey typical plants in Central Kalimantan as an example?	100	0
In your opinion, when the teacher is teaching material with the theme "Plants around me", is it necessary for the teacher to compose his own teaching materials/modules by presenting examples in the form of plants that are typical in Central Kalimantan?	70	30
In your opinion, are the typical plants in Central Kalimantan interesting to study? Especially in material with the theme "Plants around me"	100	0
In your opinion, when the teacher explains the material with the theme "Plants around me" using plants typical of Central Kalimantan, it will make you more enthusiastic to participate in learning activities?	100	0
Do you know the plant "Batang Garing"?	0	100
Has your teacher ever given examples of "Batang Garing" plants in learning activities, especially in material with the theme "Plants around me"	0	100

The use of learning resources needs to be developed because it serves as a source of various information and knowledge to develop the desired competencies in the 4.0 industrial revolution era (Singh & Marappan, 2020). Learning resources that can increase student motivation can be in the form of local wisdom (Setiawan et al., 2017) and the surrounding environment which have a lot of influence on the learning process (Hikmawati et al., 2020).

Research related to the use of local potential-based learning resources has been widely carried out. First, the implementation of science learning based on local wisdom can increase student competence (Usmeldi & Amini, 2020). Next, the learning tools in physics material based on local wisdom also can improve high school student learning outcomes and improve student character (Hartini et al., 2018). Furthermore, other research also shows that the use of Balinese culture-based learning resources can improve student character (Suastra et al., 2017). Furthermore, the use of local potential-based learning resources can improve students' science process skills which are a very important skill in the 21st century (Sriyati et al., 2021).

Central Kalimantan has a very high biodiversity. Starting from the diversity of plants and from the diversity of endemic animals in Central Kalimantan. Including the plant *Diplazium esculentum* that used by dayak ethnic in central Kalimantan to treat acne (Zannah et al., 2022; Zannah et al., 2017; Zannah & Dewi, 2021). This knowledge is obtained from the community for generations as a form of local wisdom that very important to maintain and if applied to learning activities can make learning activities more meaningful (Azhari & Zannah, 2022) and can build meaningful connections (Vahey et al., 2018), because linking teaching material with the phenomena in everyday life (Suárez et al., 2018).

After reviewing student perceptions, an analysis was also carried out on teacher perceptions regarding the use of local potential as a learning resource. That has been carried out by distributing questionnaires to 2 teachers at elementary school in Palangkaraya City which is shown in table 2.

Based on table 2, the conclusion is most of teacher agree that is important to use the surrounding environment as a learning resource. But in fact, teachers

have yet to develop their own modules that are integrated with local potential in Central Kalimantan.

Table 2. The Results of Interpretation of Teacher's Perception

Question	Percentage (%)	
	Yes	No
When learning activities in class, do you ever invited your student to study outside the room by using the surrounding environment as a learning resource?	50	50
In your opinion, is it necessary for you as a teacher to carry out learning activities by using the surrounding environment as a learning resource?	100	0
When studying in class, do you ever used a book or module as a learning resource?	100	30
Do you ever used learning resources in the form of modules written by your self during learning activities in class?	0	100
Do you ever explained about something that is unique from Central Kalimantan in the form of animals, plants and culture when studying in class?	50	50
In your opinion, are teacher need to know about the various unique local potentials that exist in Central Kalimantan in the form of plants or animals?	100	0
When studying material with the theme "Plants around me", do you think as a teacher you need to convey typical plants in Central Kalimantan as an example?	100	0
In your opinion, when you teaching material with the theme "Plants around me", is it necessary for the teacher to compose your own teaching materials/modules by presenting examples in the form of plants that are typical in Central Kalimantan?	100	0
In your opinion, when you explain the material with the theme "Plants around me" using plants typical of Central Kalimantan, it will make your student will be more enthusiastic to participate in learning activities?	100	0
Do you know the plant "Batang Garing"?	0	100
Do you ever give an example of "Batang Garing" plants in learning activities, especially in material with the theme "Plants around me"?	0	100

Teachers are usually required to master various competencies (Meling, 2022), one of which is no less important is the teacher's skills in preparing teaching materials to be applied to learning activities.

One of the causes of the lack of teachers developing their own teaching materials is caused by internal factors. The teachers usually have confidence in their social abilities but lack confidence in their pedagogical abilities (Ammonet et al., 2022). This of course needs to be addressed immediately in order to improve the quality of education through increasing teacher competence.

Conclusion

This research concluded that the development of batang garing's module very important thing to do based on teacher and student perception. Teachers need to use learning resources that are closely related to students' daily lives, so that the material presented can be stored in long-term memory. One of them is using various local potentials as learning resources like Batang Garing plant which is very closely related to the principles of the Dayak community in Central Kalimantan. This research. This research is the reason for the next research to develop the module.

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Author Contributions

The roles of the authors in this research are divided into executor that is MW and advisor in this research that is FZ.

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Conflicts of Interests

The authors declare no conflict of interest.

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