LITERATURE REVIEW: GROWING STUDENT CHARACTER EDUCATION BASED ON LOCAL WISDOM IN SCIENCE LEARNING

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Article Info	ABSTRACT
	Character education based on local wisdom is an effort to prevent the decline of ethical and moral values of the younger generation in the educational process. This literature review aims to discuss the cultivation of local wisdom-based student character education in science learning. The method used in this study is Narrative Literature Review (NLR). Data collection through the Science Direct and Google Scholar databases, articles that have been published from 2017 to April 2023. The results of the literature review that has been carried out show that, local wisdom-based student character education in science learning in schools can be instilled by integrating the potential of local wisdom with activities extracurriculars, practicum or group learning, local tourism model learning, learning that is done with games, as well as through interactions between students using local languages. *This is an open access article under the <u>CC BY-SA</u> license.*

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1. INTRODUCTION

In facing challenges in the digital era, character building is the most important pillar in Indonesia (Lidi et al. 2022). The importance of having character causes character education in Indonesia to be the first point of an educational goal that must be implemented (Irhas et al. 2022). In the current generation, there are many problems that are happening related to ethical, moral, religious, and cultural values, these problems can be overcome by inculcating character education (Marshaka et al. 2021).

Based on research on character education in schools, various problems were found, namely, violence, corruption, manipulation, practices in the world of education regarding exam cheating to plagiarism, lack of exemplary behavior among national leaders, and others which came from character issues (Haq et al. 2022). Implementation of character education can be carried out through local wisdom values that can improve the quality of education, and national morals and improve the quality of implementation and results of education in schools (Chairiyah 2017). Character education based on local wisdom is also an effort to prevent the decline of ethical and moral values of the younger generation in the educational process, and when character education is successful, then this education is also successful in building the character of a nation and is important for building the morals and personality of society (Khairunnisa et al. 2019).

Overall, local wisdom helps maintain social harmony and regulate activities that affect life and people in the area (Jumriani et al. 2021). The learning process that focuses on local wisdom can also improve students' skills with Indonesia's many diverse tribes and cultures and this is a challenge for educators to create learning designs that suit students' attitudes (Hikmawati et al. 2021). The development of local cultural values in character building can be carried out using different models and methods, for example, to develop

communication skills one can choose the conversational method or students are asked to present local cultural material (Tohri et al. 2022). Previous studies have focused more on efforts to integrate local wisdom in the learning process or on the learning media used, but only a few have examined local wisdom-based learning and its relationship with student character education. Based on the description above, a literature review was carried out which aimed to examine efforts to instill character education in students based on local wisdom in science learning.

2.   RESEARCH METHOD

This literature review discusses the cultivation of local wisdom-based student character education in science learning. The method used in this study is Narrative Literature Review (NLR). This method is tracing and researching a particular topic or issue by collecting data from reading various books, journals, and other publications which will later be ordered to make a new scientific paper by the researcher. In addition, NLR is a type of research that reviews publications in support of Library and Information Science (LIS) studies (Fani & Rukmana, 2022). The process of reviewing this literature began with collecting articles that had been published from 2017 to April 2023. The articles collected were related to local wisdom-based character education in science learning. Articles were collected through the Science Direct and Google Scholar databases, then identified using several relevant keywords, to obtain 43 articles. The collected articles were analyzed and reviewed, then the literature review results were presented in the form of review articles.

3.   RESULTS AND DISCUSSION
3.1.   Character Education Based on Local Wisdom

The word "character" is based on moral values that are responsible, honest, fair, caring, and respect for oneself and others, while what is meant by character education is an approach to inculcating moral values that are systematic, comprehensive, and planned (Birhan et al. 2021). Jeynes' research, (2019), suggests that character education is also an effort made in the development of goodness that allows us to live a full life and build a better world. Over time, education has an important purpose and role in developing a person's character or personality which is a means of developing one's potential and life order (Aningsih et al. 2022).

Character education in Indonesian education is also considered because of the social changes that are happening at the moment, many Indonesian youths have problems with their negative behavior and attitudes, so the Indonesian government emphasizes character education (Hidayati et al. 2020). Character education aims to develop humans to become better individuals (Masnunah et al. 2020). According to Komalasari & Saripudin, (2017), helping students understand, be aware, appreciate, and apply values in living life is also the goal of character education.

Teaching characters using local wisdom is a must for every level of education because character-building is the most important foundation for the growth and development of the younger generation and can preserve local wisdom (Hidayati et al. 2020). Studying local wisdom is seen as the same as studying the surrounding culture and learning local wisdom or culture can strengthen moral values in a society (Uge et al. 2019). The importance of local culture is reviewed to re-establish the character of the Indonesian nation which is civilized, polite, and virtuous, this aims to minimize the current flow of globalization towards the low character of today's children (Putra et al. 2020). Education can be a means of protecting local wisdom so that it can continue to grow and develop in society, this can help produce students who can apply local wisdom values in everyday life (Jumriani et al. 2021).

The application of local wisdom in learning aims to increase the sense of local wisdom in the student environment and efforts to maintain the existence of local wisdom amid the swift currents of globalization (Shufa, 2018). According to Darmadi, (2018) and Hetarion et al. (2020), the purpose of local wisdom-based education is to create awareness and valuable information for students about the noble values they have, as well as to reflect cultural values. According to Pingge, (2017) and Sofyan et al. (2019), local wisdom-based education also aims for students to know the local advantages of where they live and understand various aspects related to this local wisdom, and the purpose of developing a local wisdom-based curriculum is to explore the potential of certain areas optimally. The purpose of introducing a variety of local wisdom cultures is to shape the character of country children who can accept, understand and respect the character of all people who are of different races, personalities, social groups, ethnicities, customs, and religions (Riyanti et al. 2021).

3.2.   The Effectiveness of Local Wisdom-Based Character Education in Learning Science

Science learning based on local wisdom influences the level of student understanding, which can be seen from the perspective of understanding and student behavior (Usmeldi & Amini, 2020). Local wisdom-based learning is also quite effective in increasing students' basic competencies and helping students understand learning (Hartini et al. 2018). Research by Aufa et al. (2021), Budiarti et al. (2020), and

Widayanti et al. (2022), shows that local wisdom is effectively used in science learning by using E-modules and local wisdom-based learning videos which are significant for critical thinking and students' concern for the environment. Research by Al-Ghofiqi et al. (2021), shows that local wisdom has also proven effective in developing students' scientific literacy.

3.3 Embedding Local Wisdom-Based Character Education in Science Learning

Character education becomes a system for instilling character values in students who need to involve all school members to form awareness and a willingness to act in realizing a generation with national character (Saputro & Murdiono, 2020). Character-based learning that promotes good habits at school will be able to create an atmosphere of life that reflects an attitude of respect for other people and the environment (Hermino & Arifin, 2020). Instilling local wisdom-based character education for students in schools can be done through the learning process in the classroom by developing learning materials and paying attention to local wisdom in the community. In schools, strengthening local wisdom-based character education can be done through habits in literacy activities (Syam & Sakman, 2020).

Efforts in developing student character through character education based on local wisdom in schools can be carried out by teachers as agents of reform who will instill character education based on character values based on local wisdom (Arifiya & Prasasty, 2020). Character education based on local wisdom is integrated into science subjects so that it can be instilled in all students (Amini et al. 2017). Integrating the potential of local wisdom around students makes students more interested in learning science so that problem-solving skills can be improved (Putri & Aznam, 2019).

At the stage of developing science process knowledge and skills, it consists of exploration, concentration, elaboration investigation, and confirmation so that at each of these stages character education can be instilled based on local wisdom (Suastra et al. 2017). In science learning, students show interest and understanding as well as awareness of local wisdom (Mumpuni et al. 2022). According to Pamungkas et al. (2023), inculcating knowledge and bringing local culture into students' lives can be done by combining science with local wisdom, as we know that most Kalimantan is forested so we can carry out learning activities directly in nature by studying the types plants and their classification.

Through science learning, local wisdom-based character education can be sought in practicum-based learning or study groups so that students will more easily instill and implement local wisdom-based character education within themselves (Hidayati et al. 2020). Instilling local wisdom-based character education values in schools can be characterized by the interaction between students at school in local languages and national languages, engaging in learning activities both inside and outside the classroom, and learning to work together (Madya & Ishartiwi, 2018) . During learning, a game or games based on local wisdom can be carried out to instill character education, for example, students do practicum by inviting students to taste some fruit, sugar, salt, etc., and inviting them to convey conclusions from this experience related to the material acid and base, togetherness in these activities can encourage students to improve their local wisdom-based character (Syamsi & Tahar, 2021).

The implementation of character education in schools is divided into three forms of activities, namely integration in lessons that involve teaching students about values and morals, such as respect for diversity, honesty, and integrity, through extracurricular activities students can develop character and establish relationships with others through sports and other activities, school culture can also be fostered by creating an environment that is conducive to character development (Jati et al. 2019). The learning model that can also be used to instill local wisdom-based character education in science learning is the local tourism learning model (Winaryati et al., 2017). This learning model is a learning model that connects the learning process with the local wisdom of an area, for example, the local tourism model in the Samarinda area which can help the learning process with local wisdom, namely the Samarinda Museum, we can reconstruct scientific concepts after observing a community culture. so that students can grow their conservation character values (Khusniati, 2017). According to Dewi et al. (2017), learning science will be fun if it is presented in a fun context such as learning that is done with the local wisdom of an area.

4. CONCLUSION

Student character education based on local wisdom in science learning at school can be instilled by integrating the potential of local wisdom in the student environment so that students are more interested in learning science. Instilling local wisdom-based student character education in science learning can also be done through various effective activities such as extracurricular activities, practicum or group learning, through local travel learning models, through learning by playing games or games, and through interactions between students using local languages.

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