

ENVIRONMENTAL-BASED STUDENT CENTERED LEARNING AT THE FIRST MIDDLE SCHOOL LEVEL

Nurmiati¹, Phika Ainnadya Hasan²

Biology Education, Faculty of Teacher Training and Education

University of West Sulawesi

Email: nurmialbugisi@gmail.com¹, phikahasan@unsulbar.ac.id²

ABSTRACT

Purpose: This study aims to implement Environmental-Based Student Centered Learning At The First Middle School Level

Design/methodology/approach: The research design was cross-sectional. Two cohorts of student teachers were included. Both questionnaires were administrated at the same moment, either by means of a paper-and-pencil questionnaire or by means of a digital questionnaire. Both versions were identical. The digital version was used in order to increase the response rate.

Findings: Student - centered small group learning environments should make students feel safe and encourage students to increase a sense of belonging for their academic success. On the one hand, peer-to-peer interaction and teacher can serve as an antecedent to the sense of the students for belonging. Communication with colleagues makes the learning environment more academic and social. The environmental-based learning model is a model that can be used to improve student learning skills and outcomes because it can create a more enjoyable, more interactive, less boring, effective, and efficient learning atmosphere

Research limitations/implications: The use of appropriate learning models will improve students' abilities

Practical implications: The environment-based learning model is one model that can be used to improve student learning skills and outcomes because it can create a learning atmosphere that is more enjoyable, more interactive, less boring, effective, and efficient.

Paper type: This study is categorised as a case study.

Keywords: *Student-Centered Learning, Environment*

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I. INTRODUCTION

The world of education as a space for increasing the capacity of the nation's children must start with a perspective that learning is part of developing their potential, thinking power, reasoning power, and promoting their creativity. Education is a place for students to gain knowledge. Through education, students can grow, develop, and explore their potential. To achieve these goals requires a change in the learning process.

There is a paradigm shift in the teaching and learning method from teacher-centered to student-centered. The changes that occur are expected to motivate students to be actively and independently involved in the learning process. Students are expected to access all available sources of knowledge. Learning should include students as much as possible so that they can explore to form competencies by exploring potential and scientific truth. One appropriate learning model that can support the goal is the environmental-based SCLmodel.

II. METHODOLOGY

The research design was cross-sectional. Two cohorts of student teachers were included. Both questionnaires were administrated at the same moment, either by means of a paper-and-pencil questionnaire or by means of a digital questionnaire. Both versions were identical. The digital version was used in order to increase the response rate.

III. RESULTS AND DISCUSSION

A. The definition of Student-Centered Learning (SCL)

SCL learning method is a reflexive learning approach for both students and teachers. Student-centered learning is a general term that characterizes several different pedagogical models. All of them are based on principles to promote active and independent involvement of students in the learning process. The idea of student-centered learning is well established. In the education literature, a student-centered approach is also referred to as a learner (Bechter, Dimmock and Jackson, 2019). The students have been involved from the start in the form of learning designs that take into account the previously acquired knowledge, skills, and learning experiences of students (Unin and Bearing, 2016).

Hockings, (2009) in (Unin and Bearing, 2016) state that Student-Centered Learning (SCL) is a reflexive approach to teaching and the learning process, both for teachers and students. Also, SCL is considered a method that pays attention to deep learning and understanding. SCL encourages students to take an active role in the learning process.

SCL is a student-centered learning approach. In the SCL learning approach, teachers must be able to carry out their roles well not only as teachers but also as motivators, facilitators, and innovators. Teachers are not only required to teach in front of the class but also play a role in helping students solve problems when students experience difficulties in the learning process (Antika, 2014).

B. The Principles of Student-Centered Learning (SCL)

O'Neill and McMahon, (2005), (Roman, 2015) presents several principles of student-centered learning. They formulate various principles in their book, entitled Guide to Student-Centered Learning, which believes that students have full responsibility for their education. Also, there are some others, such as the subject matter must have relevance and meaning for students, active involvement and participation required for learning, the relationship between learners is essential, and the teacher must be a facilitator and resource person.

According to (Roman, 2015), there are seven essential principles of student-centered learning, namely:

1. Knowledge is built from the experience of students;
2. Education is in mind rather than external;
3. Learning is a personal interpretation of the world in which the beliefs and values of the students are used in interpreting objects and events;
4. Learning is an active process of making meaning out of experiences;
5. Learning takes place in a context that is relevant to the learner;
6. Reflection is an integral part of learning;
7. Learning is a collaborative process in Indonesia, where many perspectives are considered.

Qualitative data reveal that storytelling has the potential to highlight a learning experience that resembles the SCL process. Storytelling provides opportunities for students to use ideas and bring their own experiences into the conversation. A lot of learning is related to the daily experiences of the students (Unin and Bearing, 2016).

Student-centered learning strategies are as follows:

1. Decision-making responsibilities related to planning, implementing, and evaluating activities are shifted, at least in part, from teacher to student.
2. Teachers usually adopt the role of facilitator or activist-companion of learning and play a role in encouraging and supporting student ownership of the learning process.
3. Students are explicitly encouraged to learn from, and give instructions to, other students through coaching and peer group work based on complementary interests, or performance levels.
4. Although teachers maintain a management and monitoring role, they encourage students to engage in their own reflective and creative thinking and challenge students to find solutions to problems on their own. Finally, student-centered learning strategies emphasize the importance of the role of the teacher in

increasing the focus of each student on individual learning, empowering students to learn about their development and skills and to adapt their learning strategies accordingly (Bechter, Dimmock and Jackson, 2019).

C. The definition of Learning

Learning as a process of providing lessons to students using educational principles and learning theory is a significant determinant of educational success. According to Carstensen *et al.* (2020), the purpose of implementing learning is the desire to:

- a. Increase teacher knowledge about student learning progress,
- b. Increasing teacher-student interaction, which includes not only a portion of students in one or two discussion groups but the entire class,
- c. Improve active student learning,
- d. Increase the immediate results of the course by increasing the number of students who pass the exam without compromising exam quality.

Teaching is a very complex activity that makes use of many types of knowledge. Pedagogical content knowledge (PCK) discusses how to teach specific topics to be given optimal learning.

Internal factors that affect student learning are the physical and spiritual conditions of students. Factors that include physical factors or physiological aspects are tone (muscle tension), student fitness, religious factors / psychological factors, such as motivation, level of intelligence, talents, and the attitudes of students. External factors that influence student learning include social and non-social environmental factors. Social factors consist of teachers and school friends. Non-social elements consist of the school building, the geographical location of the school, the family environment, the weather, and the study time used (Bormann *et al.*, 2020).

According to (Brouwer *et al.*, 2019), learning is a process carried out by teachers to change the behavior of students for the better, which is planned, implemented, and evaluated, so that students can achieve learning goals effectively and efficiently. Learning is a system. Learning consists of several structured components, including learning objectives, learning media, strategies, learning approaches and methods, class organization, learning evaluation, and learning follow-up in the form of remedial and enrichment (Ganefri and Hidayat, 2015).

From some of the above definitions, it can be concluded that learning is a conscious effort made by someone who has been planned to achieve learning objectives.

D. Student Centered Learning (SCL) Berbasis Lingkungan

In an Indonesian dictionary, the environment is defined as an environment that affects human development and behaviour (Torar and Wahono, 2014). The place or natural environment around where a person can learn or the process of changing behavior can be categorized as a place of learning or learning resources that consists of libraries, markets, museums, rivers, mountains, landfills, fish ponds, and so on (Majid, 2015).

Various student-centered learning environments have been implemented in university curricula in recent decades. They reflect the predominance of the principles of social constructivism. The constructivist perspective on learning and teaching encourages students to build knowledge during the learning process actively. Many university programs have replaced passive, traditional, large, lecture-based teaching designs with active student-centered learning environments (Ruginski *et al.*, 2019).

Environmental empowerment is an approach that seeks to increase the involvement of students through the utilization of the environment as a learning resource. The procedure will be a learning activity that attracts the attention of students. The subject matter is very contextual to life and is very beneficial for the environment (Nurdin *et al.*, 2017).

Environmental-based learning leads to learning that uses the environment as a learning resource. The environment can be formatted or used as a learning resource. In this case, the teacher can link the material taught with the real-world situation of students to encourage students to make connections between the knowledge they have and their application in daily life (Richardson and Mishra, 2018).

According to (Basri *et al.*, 2012), learning based on an environmental approach can be done in two ways:

1. Bringing students to the environment for the benefit of learning. It can be done by field trip methods, assignment methods, and so on.
2. Bringing resources from the environment to the school (class) for the sake of learning. The sources can be original sources, such as sources, and imitation sources, such as models and pictures.

Based on the above opinions, environmental-based learning is the learning method that utilizes the environment as a learning resource that guides students to connect their knowledge with everyday life.

The learning process that is based on natural surroundings will help students to adapt to their surroundings. Ovide Decroly is known for his theory, which argues that school is from life and for life (*Ecole pour la vie par la vie*). The theory suggests bringing life into school so that students can live in the community later. Two terms are very closely related, but different gradually, is the surrounding environment and the environment. The surrounding environment includes everything that is around us, whether it is far or near, past, or future, which is not bound by time and place. The environment is something that exists in the natural environment, which has a certain meaning and influence on the individual. The environment as the basis of teaching is a conditional factor that affects individual behavior and is a critical learning factor (Laverty and Thompson, 2020).

According to (Laverty and Thompson, 2020), the learning environment consists of the following:

1. The social environment in the community, whether large or small groups.
2. A personal environment includes individuals as a person influencing other individuals.
3. The natural environment (physical) includes natural resources that can be empowered as learning resources.
4. Cultural environment, including the results of culture and technology that can be used as a learning resource, and can be used as a supporting factor for teaching.

The environment can provide opportunities for concrete thinking, free activity, and learning that allows students to carry out various activities, such as exploring and observing (Andersen, Brunoe and Nielsen, 2019).

The environment as a learning resource is used to see the physical condition with all its problems. The examples can be, from small things such as rain, pollution, or about garbage. Students are invited to directly see the environment around them and relate it to the learning material. Students can learn from experiences about the environment with the method (Cholvistaria, 2012).

Student-centered small group learning environments must make students feel safe and encourage students to increase their sense of belonging for their academic success. On the one hand, peer-to-peer interaction and teacher can serve as an antecedent to the sense of the student for belonging. Interaction with peers creates a more academic and social learning environment. Faculty interaction is an essential predictor of belonging, as expressed in availability, approachability, flexibility, and teacher respect for students. On the other hand, the learning environment creates relatively small and cohesive groups to encourage a sense of belonging. Students who know each other well have more opportunities to meet group members (Brouwer *et al.*, 2019).

Teachers are also expected to adopt new teaching methods by linking new learning environments with technology. Adopting a new approach requires pedagogical thinking and teacher expertise (Kangas *et al.*, 2017).

The electronic learning environment is intended to provide students the tool to work with a personal space where they enjoy the freedom to explore and adapt it according to their needs. Therefore, the electronic learning environment is designed so that learners can adapt to the direct learning environment to suit their different learning styles. After receiving basic instruction on how to use the learning environment, students can get to work and master it in no time. We believe that catalog services simplify the process of finding educational content in e-learning environments (Morteo and López, 2007).

(Pane and Patriana, 2016), state that most students agree that environmental content must be integrated into the character education curriculum in Indonesian general lessons. The many benefits of character education inherent in the environment show that the content of the environment is very relevant and practical if it is used as a supporting component for character education. Environmental awareness can also increase the comfort of life because individuals tend to maintain sanitation, balance, and preservation of the physical environment around them. The comfort factor of life is very influential in improving the quality of life of individuals and communities.

E. The Characteristics of Environmental-Based SCL

Environmental education is essential for society. After receiving an education, awareness of the environment can grow and develop well. It will encourage a change in attitude and mindset towards a better environment. The real purpose of environmental education is to enable community members to be aware and sensitive to the environment and its problems, as well as to acquire knowledge, skills, attitudes, motivation, and willingness to work together as individuals and groups (Pane and Patriana, 2016).

Increasing skills in using learning models will stimulate students in learning. The use of appropriate learning models will improve their abilities. The environment-based learning model is one model that can be

used to improve learning skills and outcomes because it can create a learning atmosphere that is more fun, more interactive, not boring, and is effective and efficient (Brouwer *et al.*, 2019).

According to Acar, (2014), the environment can be used as a source of learning, namely:

1. Learning by using the environment as a learning resource will relieve student boredom. Able to overcome the saturation level of students participating in learning because they are dealing with the environment around them.
2. Having a variety of learning variations between inside and outside the classroom, so that it will provide a pleasant atmosphere for students and increase learning motivation.
3. Learning is not just accepting the theory, but it requires skills to apply specific lessons. By learning in an open environment, the insights will be opened compared to in the classroom where there are no direct facilities that can be used.
4. Studying outside the classroom allows students to be independent. They will not depend much on teachers to explore knowledge in their environment. The task of the teachers will be lighter if the child is independent.
5. Expanding thinking insights of the students by participating in learning can produce satisfactory achievements.

IV. CONCLUSION

Student-centered small group learning environments should make students feel safe and encourage students to increase a sense of belonging for their academic success. On the one hand, peer-to-peer interaction and teacher can serve as an antecedent to the sense of the students for belonging. Communication with colleagues makes the learning environment more academic and social. The environmental-based learning model is a model that can be used to improve student learning skills and outcomes because it can create a more enjoyable, more interactive, less boring, effective, and efficient learning atmosphere

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