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Implementation of CORE (Connecting,
Organizing, Reflecting, Extending) Strategy on
Students' Connection Ability in Elementary Mathematics Subjects

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ABSTRACT

The key to the success of educators right on target for students is determined through the implementation of learning strategies. In fact, the CORE Strategy (Connecting, Organizing, Reflecting, Extending) aims to train students' connection skills, think critically, and be active in learning. The purpose of writing this article is to describe the implementation of the CORE strategy for students' connection abilities in mathematics at the elementary/MI level. This study uses a descriptive qualitative research method that aims to describe an object, phenomenon, or problem with the facts being studied. Data collection techniques were carried out using observation techniques, interviews, and documentation studies. Based on the results of this study it was found that the implementation of the CORE strategy could improve students' connection skills in mathematics. The student is active, gives a positive response when participating in the learning process, and understands the subject matter that has been taught. Thus, it is stated that the implementation of the CORE learning strategy in mathematics is categorized as appropriate for SD/MI children, as well as the students' connection abilities developing well and providing feedback in the ongoing learning process.

ABSTRAK

Kunci keberhasilan pendidik tepat pada sasaran terhadap peserta didik ditentukan melalui implementasi strategi pembelajaran. Faktanya, Strategi CORE (Connecting, Organizing, Reflecting, Extending) bertujuan untuk melatih kemampuan koneksi siswa, berpikir kritis, dan aktif dalam pembelajaran. Tujuan penulisan artikel ini untuk mendeskripsikan implementasi strategi CORE terhadap kemampuan koneksi siswa pada mata pelajaran matematika tingkat SD/MI. Penelitian ini menggunakan metode penelitian kualitatif bersifat deskriptif yang bertujuan untuk mendeskripsikan suatu objek, fenomena, atau permasalahan terhadap fakta yang sedang diteliti. Teknik pengumpulan data yang dilakukan dengan menggunakan teknik observasi, wawancara, dan studi dokumentasi. Berdasarkan hasil penelitian ini ditemukan bahwa implementasi strategi CORE dapat meningkatkan kemampuan koneksi siswa pada mata pelajaran matematika. Siswa tersebut aktif, memberikan respon positif saat ikut serta dalam proses belajar, dan memahami materi pelajaran yang telah diajarkan. Dengan demikian, dinyatakan bahwa implementasi strategi pembelajaran CORE pada mata pelajaran matematika dikategorikan tepat diaplikasikan pada anak SD/MI, serta kemampuan koneksi peserta didik berkembang dengan baik dan memberi feedback dalam proses pembelajaran yang sedang berlangsung.

PRELIMINARY

Activity centers in children are more likely to lead to play facilities. Playing is part of the characteristics and scope of the child's world to get a sense of joy, satisfaction that is so fun to play. The choice of playing in the learning process is the right thing to apply. By playing, children are trained so that they can create talents from various creative ideas based on their experience, develop children's thinking skills and intelligence, and facilitate understanding of learning difficulties in elementary school age children.

Usually, the ideal for elementary school-age children is to have an activity that likes to play without knowing boundaries, and imagines freely according to their feelings through the child's high creativity in exploring (Rusta & Windarsih, 2021). In playing, many things are obtained by children and are not found in activities other than playing so that they are seen as very important in terms of growth, development, and children's essential needs (Yudesta, 2016). Children do not just play but play is also part of the learning process (Magdalena, *et.al.*, 2020). Of course, through playing, children get lessons that stimulate aspects of the child's physical, cognitive, social and emotional development (Mulyati, 2019).

The ideal of a teacher must be able to educate, train, and teach as a whole and thoroughly and the teacher needs to create a pleasant atmosphere so as to reduce boredom in learning because the teacher has an important role in educating students, namely as a facilitator and mediator (Wajdi, 2021). Efforts made by an educator must certainly provide comfort and a supportive environment in designing learning with games outside the classroom or outdoor (Christianti, 2007).

Based on the reality, parents give limited space and give little opportunity to fully play children as a result, unconsciously the child's thinking ability is less developed, and feels pressured. Therefore, it is very important that students need the role of the teacher who is in charge and responsible for guiding, directing, supervising and training the potential of students to develop their talents and creativity so as to minimize students' thinking power barriers (Murtiningsih, 2013).

The educational process is inseparable from the existence of a learning strategy that is implemented properly and successfully. It will not work if the learning strategy is implemented not optimally because the key to the success of the learning process is from skills and professional teachers so that they are better prepared to face the challenges of the teaching and learning process in implementing learning strategies for students.

Similar to this statement, Suwarmi, Kurniasih and Rostikawati stated that success in the teaching and learning process in order to achieve learning objectives requires the use of appropriate learning strategies, approaches and methods, innovative learning models, as well as planned learning tactics and techniques. The learning strategy is contained in the learning implementation plan so that the teacher has a position and plays a role in determining what strategy needs to be implemented based on the basic competition abilities of SD/MI students.

Every child certainly has different limitations and connection abilities and cannot be generalized, especially in understanding mathematics. Basically the teacher must be able to help the problems of the difficulties faced by students in the learning process. Thus, teachers are required to get to know more closely the personality of each elementary school-age child (SD) so that it will make it easier to provide subject matter that suits the needs, interests and talents of students. Teachers are also required to have high creative skills to convey material and information (Hasibuan, *et.al.*, 2022). Creative teachers are teachers who are professional by maximizing the delivery of teaching materials through learning strategies because this can increase the success of the learning process for students.

Basically, studies regarding the implementation of the CORE (Connecting, Organizing, Reflecting, Extending) strategy have been widely researched and discussed by a number of people. Among them is examining the effectiveness of the pair-grouping strategy in learning mathematics in the CORE model (Retnowati & Aqilah, 2017). Mathematical reasoning abilities in the Connecting, Organizing, Reflecting, Extending (CORE) learning model (Konita, *et.al.*, 2019). The effectiveness of the CORE learning model with cognitive conflict strategies in terms of learning achievement, critical thinking, and self-efficacy (Ningsih, *et.al.*, 2020). Mathematical connection ability in the CORE learning model (Praselia, *et.al.*, 2020).

Based on the literature review above, there is an analysis of the study of further discussion of the implementation of the CORE (Connecting, Organizing, Reflecting, Extending) strategy for students' connection abilities in mathematics at the SD/MI level. This research is expected that the implementation of the CORE strategy on students' connection abilities is well aligned and provides feedback on the mathematics subjects being taught.

METHOD

This type of research uses qualitative methods with a descriptive approach. Descriptive qualitative research is a research that is narrative in nature and describes an object, phenomenon, or problem being studied (Anggito & Setiawan, 2018). The use of this qualitative research aims to describe the implementation of the CORE (Connecting, Organizing, Reflecting, Extending) strategy on students'

connection abilities in mathematics at the SD/MI level, as well as to understand the subject and explain the facts or events that will be studied. Data collection techniques were carried out by observation, interviews and documentation techniques. This research was conducted by collecting and involving participants, namely elementary school students. The results of the data obtained by researchers through sources of information, facts found during field observations and documentation studies.

FINDINGS AND DISCUSSION

Mathematics is a science that cannot be separated in the world of education because mathematics has an important role in everyday human life. The goal of learning mathematics is for students to have the ability to reason, connect, and solve problems with mathematical concepts so that when applying, solving problems in mathematics is done accurately, correctly, and precisely (Prasetia, *et.al.*, 2020).

In general, the ability to connect mathematics is the most important thing that students must have in learning mathematics and in the process it includes parts that are interconnected with each other (Yulia & Rochmad, 2022). In this regard, in general, elementary school-age children's mathematical connection abilities are still low (Prasetia, *et.al.*, 2020). Therefore, learning mathematics is carried out through the CORE strategy to maximize the teaching and learning process on the connection abilities of SD/MI students.

CORE is an abbreviation of four words that have a unified function in the learning process, namely Connecting or connecting old information with old information, Organizing or organizing the information obtained, Reflecting or reflecting, exploring information that has been received, and Extending or expanding knowledge (Muizaddin & Santoso, 2016). CORE (Connecting, Organizing, Reflecting, Extending) is a strategy designed to carry out learning activities.

The CORE learning strategy is a learning model that can help students understand the lesson material or concepts. The CORE learning strategy is a strategy and even a learning model that emphasizes the connection of students' abilities to connect or relate, organize, explore, manage, and develop the information and knowledge obtained (Hermanudin, 2019). The CORE learning model is a learning model that can influence the development of reasoning connection abilities, knowledge so that it can connect, organize, reflect, and expand students' knowledge. The CORE Learning Strategy steps that are applied to elementary school students in learning are as follows.

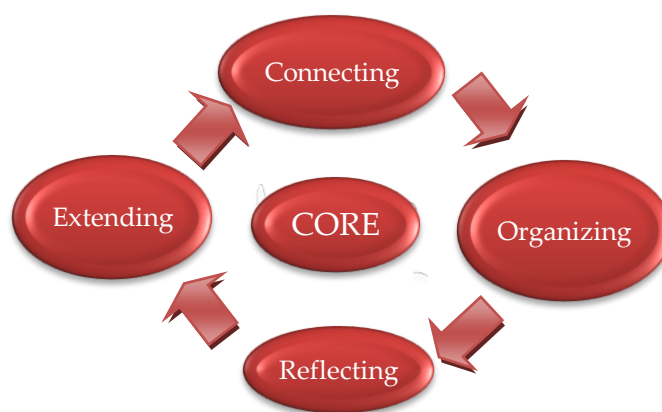


Figure 1. CORE Learning Strategy Flow Framework

Connecting. In the first stage, namely Connecting, a teacher is needed to guide and direct students to associate or connect material that has been previously studied or with everyday life with the material being studied. *Organizing.* The second stage is to carry out the CORE learning strategy, namely Organizing. At this stage the teacher guides students to organize their knowledge through discussion after finding interrelationships between concepts so that they are able to solve the given problem.

Reflecting. The third stage is to carry out the CORE strategy, namely Reflecting. At this stage the teacher trains students' way of thinking reflectively and is able to explain back from the information that has been obtained. *Extending.* The fourth stage is to carry out the CORE strategy, namely Extending. At this stage the teacher asks students to convey and explain the work on the questions/exercise that have

been given in groups which are presented in front of the class (Deswita & Isharyadi, 2020). However, if students are unable to work on practice questions, the teacher must assist students in solving these problems.



Figure 1. *Connecting*



Figure 2. *Organizing*



Figure 3. *Reflecting*



Figure 4. *Extending*

There are inhibiting factors from the CORE learning strategy, namely passive students in learning, have retardation in understanding reasoning so it is necessary to strive for the delivery of the material being taught in stages. While the supporting factors are professional teachers in teaching, involving students in active learning, teachers create learning that trains students' memory and concentration on a material in learning (Susanti, et.al., 2018).

Based on the results of observations that have been made by researchers that the implementation of the CORE strategy is stated to be able to improve students' connection abilities in mathematics subjects that go well in the learning process. The student is active, gives a positive response when participating in the learning process, and understands the subject matter that has been taught because these students cooperate with each other among their peer groups on assignments given in groups so that if there is a connection ability students have a little delay, then it will be a solution best with it.

From the results of interviews with children at the elementary school age level (SD/MI) who had been taught, it was stated that these students liked and were happy when they were taught mathematics because they liked the content and the delivery of learning was delicious and easy to understand. Thus, it is stated that the implementation of the CORE learning strategy in mathematics is categorized as appropriate for SD/MI children, as well as the students' connection abilities developing well and providing feedback in the ongoing learning process.

CONCLUSION

Based on the results of the research that has been done, it can be concluded that the implementation of the CORE strategy can improve students' connection skills in mathematics. The student is active, gives a positive response when participating in the learning process, and understands the subject matter that has been taught. Thus, it is stated that the implementation of the CORE learning strategy in mathematics is categorized as appropriate for SD/MI children, as well as the students' connection abilities developing well and providing feedback in the ongoing learning process.

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