
Contextual Thinking Ability in Learning Somatic, Auditory, Visual and Intellectual Models with Recitation Strategies at SMP Negeri 1 Jetis Ponorogo

Faninda Novika Pertiwi*, Fauji Agusta

Institut Agama Islam Negeri Ponorogo, Jawa Timur, Indonesia

*Email: fanindanovika87@gmail.com

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Abstract. Students' ability to think contextually is still not optimal. The ability to think contextually is essential for students to have in helping to understand good learning by linking the surrounding environment. Based on a preliminary study conducted at SMP Negeri 1 Jetis Ponorogo, students' ability to think contextually is still relatively low, namely an average of 68. Therefore, it is necessary to apply innovative learning models such as the SAVI (somatic, auditory, visual, and intellectual) with recitation strategies. The SAVI model can make students more active because the learning process integrates all senses. This study uses a quantitative approach to the type of experimental research. The research design used is a true experimental with a posttest only control design. The population in this study was class VIII at SMPN 1 Jetis Ponorogo with a total of 8 classes. The sample in this study was selected using purposive sampling, namely class VIII E and VIII G. This study used a descriptive test as an instrument for data collection. The results of this study are that the SAVI learning model is effective on students' contextual thinking skills at SMP Negeri 1 Jetis Ponorogo which is characterized by the one-tailed t-test results which produce a p-value of 0.000 less than alpha (0.05) which indicates that the experimental class's ability to think contextually with an average higher than the control class. The average value of the experimental class was 88.3, while the control class obtained an average value of 69.0.

Keywords: Contextual, SAVI, Recitation

Introduction

The development of natural science has progressed so rapidly because of information and technology. Science education is knowledge that comes from experimental findings or observations, and trains students to find out something according to the circumstances of the surrounding natural environment. Science learning does not only involve conveying information about the concepts presented in the material, but also requires an understanding of the processes of natural phenomena through the use of the human senses. For example, observing events that have occurred directly through experimental activities and then recording the information that emerges from the events observed. There

are many things that we can take from our observations of the world around us (Ariyanti et al., 2021).

One of the abilities related to the application of concepts and theories is the ability to think contextually. Learning with a contextual approach is learning that can build students' knowledge from everyday life (Budiman et al., 2020). With this ability, students can compare various information obtained in class with observations in the environment and can be more active in learning due to mastery of in-depth concepts. Therefore, it is necessary for students to have good contextual thinking skills. Meanwhile, based on a preliminary study conducted at SMP Negeri 1 Jetis Ponorogo, the results of interviews with teachers found that students' ability to think contextually was still relatively low. This is proven when students are given tests related to contextual thinking skills, the average value is classified as low, namely 68. Contextual thinking skills are related to students' cognitive abilities, namely mastery of material and concepts. So that the standard in this cognitive measurement is the minimum completeness criteria (KKM), which is 75. When students get scientific problems, these students still need to dig up further information to answer problems based on scientific concepts. In addition to having low contextual thinking skills, students' ability to maintain strong concentration on their studies is still lacking. When given a scientific problem, students still have to do additional research to answer questions based on scientific concepts. Apart from having poor contextual thinking skills, students also lack the ability to concentrate intensely on their studies. This is due to one of the factors, the absence of various learning models, the lack of student focus in the learning process, and the lack of observation assignments based on real-world problems.

Students can improve academic knowledge and skills both inside and outside the classroom as a consequence of this contextual approach to dealing with real-world or situational problems (Pity, 2002). Using a contextual approach gives students greater power by encouraging them to construct knowledge in their own minds, allowing them to experience knowledge rather than memorize it. A contextual learning approach can help students who are used to dealing with problems in their daily lives, find something useful for themselves, and struggle with ideas (Kusmiyati, 2009). Learning a context-based environment engages students in challenging learning activities that activate their thinking and metacognitive abilities, while also inspiring them to learn and encouraging them to be scientifically literate. The use of a contextual-based learning focus will be able to develop logical/authentic thinking skills and will improve student understanding better because these activities directly invite students to learn through real experiences (Hafnidar et al., 2016). So students will be able to make connections between what students learn in class and what they gain through their experiences in real life if contextual learning is applied correctly.

Somatic, auditory, visual and intellectual (SAVI) is a learning model that combines physical movement with brain activity, as well as the use of all the senses, to produce a learning model. The following are some of the elements found in SAVI: The term "soma" is of Greek origin and means "body." Somatic learning is defined as learning through the sense of touch, kinesthetic learning, practically incorporating the physical body, and using the body while learning regularly, among others. Meier also provides evidence to support his point of view by presenting the findings of neurological research, which reveal that thoughts can be found throughout the body. As a result of this result (Tyas, 2014). SAVI is characterized by the integration of the four modalities into one learning experience (Nurussilmah et al., 2020).

Somatic (S) means body movement, auditory (A) means learning by listening and speaking, visual (V) means observing and illustrating, and intellectual (I) means using the mind and intellectual abilities to understand concepts and theories (Victorina & Ramadhan, 2019). SAVI has the potential to train science skills because does not only use mental skills, but also uses direct practice. The SAVI approach also has the potential to address the

diversity of types of student learning in the classroom. Each student in a class basically has a tendency to learn different styles in understanding subject matter. Through the SAVI approach students can develop students' science process skills with their own abilities (Rahmi et al, 2018).

Recitation strategy is a method applied by the teacher, here the teacher is responsible for giving assignments in learning activities. Recitation strategy is a learning strategy by giving assignments to students to learn, then being held accountable in front of the class. Besides that, the recitation strategy is a strategy for giving assignments that are given outside of class hours (Nawi et al., 2019). In its presentation, this recitation strategy is given to students to understand, which then method will also provide an opportunity for students to provide freedom so that students can express their ideas more and ask questions. So that, it can provide an implication, namely the creation of an interaction between students and teachers.

When the SAVI learning model and recitation strategy are used together, the relationship between the two is a learning variable that affects each other's contextual thinking abilities. The learning process with SAVI, includes involving the senses in the body which facilitate learning, being physically active, using the senses as much as possible, and incorporating the whole body or mind in the learning process (Maknun, 2014). If the material taught is related to environmental situations or real world situations that students encounter everyday, learning will be easier for them because the material will be easier to understand and does not feel abstract to them. The contextual approach is a learning paradigm in which teachers bring real-world events into the classroom and encourage students to draw connections between the information they have and the application of that knowledge in their lives as members of their families and communities (Tyas, 2014). Giving students more space to learn through contextual learning, students can better understand and apply what they have learned in real-world situations (Salavera et al., 2019). Through good contextual skills, it helps students to be able to connect subject content with real situations in the real world.

Contextual thinking skills expose students to various situations on tasks that require them to use knowledge and skills from various disciplines (Wang et al., 2020). Therefore we need the right learning model to improve this ability. The SAVI learning model in this study is associated with recitation strategies. Where the recitation strategy is a learning strategy that can help students improve student learning outcomes related to assignments. Students are given assignments outside of school hours for a certain period of time, and the results are reported back to the teacher with the aim of encouraging students to actively learn both individually and in groups (Kusmiyati, 2009). The stages in the first recitation strategy are giving assignments, the second is carrying out assignments and the third is accountability for assignments. With the stages of this recitation strategy, it is able to strengthen the advantages of the SAVI learning model. So that the SAVI learning model with a recitation strategy is expected to improve students' ability to think contextually. Based on the description above, this study aims to determine the effectiveness of the SAVI learning model with recitation strategies on students' contextual thinking skills at SMP Negeri 1 Jetis Ponorogo.

Method

This type of research is quantitative research. The experimental design used is a true experimental design with a posttest only control design. It is said to be a pure experimental design because in the process, the researcher can control all external variables that affect the course of the experiment. In addition, there is also a control group as a comparison to the experimental group in the study. Posttest only control design means

that in this study only tests were given to the control and experimental groups after the treatment.

Table 1. Research design

Group	<i>Pretest</i>	Treatment	<i>Post-Test</i>
Experiment	-	X	O1
Control	-	-	O2

Information:

X : Treatment in the experimental class by applying the SAVI learning model

O1 : The test given after treatment in the Experiment class

O2 : The test given after treatment in the Control class

Research procedures in which the control group is given learning using conventional learning. While the experimental group used the SAVI with a recitation strategy. In research without using a pre-test, but after the learning process is complete, a test (post-test) will be given to determine the ability to think contextually in both the control and experimental classes. The population in this study were all eighth grade students of SMP Negeri 1 Jetis Ponorogo, consisting of 8 classes with a total of 256 students. The research sample was taken by purposive sampling so that there were 37 students in class VIII G as the experimental class and 32 students in class VIII E as the control class.

Collecting data in this study using a written test. The written test is used to determine students' contextual thinking skills in the form of 10 items of description questions. The test is carried out once after getting the learning activity. The test used includes indicators of contextual abilities in it, namely constructing, detecting, asking, learning communities, demonstrating, reflecting and assessing. The test results are used to assess students' ability to think contextually in various situations. The data analysis technique in this study used the t-test statistical test with the help of Minitab and SPSS applications. There are 2 types of t-test used, namely two-tailed and one-tailed.

Results and Discussion

The results of this study indicate that the implementation of learning and student activities is very good. This is based on the results of observations made to ensure that students' ability to think contextually is only influenced by the learning model applied, there are no other variables that influence it. The results of the study were obtained through the two-tailed and one-tailed t tests. This test can be used if the previous data has passed the normality test and homogeneity test. The two-tailed t-test is intended to determine whether there is a difference between the contextual thinking abilities of students who experience learning the SAVI model and recitation strategies and skills of students who apply conventional learning models. Researchers carried out a two-tailed t test with the help of the Minitab application.

Table 2. Two Tailed t Test Output

No	Sample	N	Means	StDev	SE Means	T-Value	DF	P-Value
1.	Experiment	37	88.3	10.9	1.8	5.44	50	0.000
2.	Control	32	69.0	17.3	3.1			

From the table of the results of the two-tailed t test above, it can be seen that the p-value obtained is 0.000. If the p-Value obtained is less than 0.05 then it is rejected and accepted. The test results obtained a p-value of 0.000 which is smaller than 0.05. So it can be concluded that there are differences in the ability to think contextually between the experimental class that applies the SAVI with recitation strategies and the control class that applies the conventional learning model. Because there is a significant difference in the two-tailed test results above, a further test must be carried out with the one-tailed t test which aims to determine better contextual thinking skills between the experimental and the control class.

Table 3. One Tailed t Test Output

No	Sample	N	Means	StDev	SE Means	T-Value	DF	P-Value
1.	Experiment	37	88.3	10.9	1.8	5.44	50	0.000
2.	Control	32	69.0	17.3	3.1			

The experimental class average was higher, namely 88.3 compared to the control class average, which was 69.0. So it is known that the ability to think contextually of students who apply the SAVI with recitation strategies is higher than the ability to think contextually of students who apply conventional learning models. It can be concluded that the SAVI with a recitation strategy is effective in increasing students' contextual thinking skills VIII SMP Negeri 1 Jetis Ponorogo on the human respiratory system.

Based on research that has been carried out regarding the effectiveness of the SAVI model of learning with a recitation strategy on contextual thinking skills on the theme of the human respiratory system at SMP Negeri 1 Jetis Ponorogo it is known that the learning model above is effective in increasing students' contextual thinking skills. Based on the results of the two-tailed t test with the help of Minitab software, a p-value of 0.000 is lower than alpha (0.05), so H_0 is rejected and H_1 is accepted. From the data above, it can be seen that there are differences between the experimental class and the control class. The experimental class uses the SAVI with a recitation strategy with the control class using a conventional learning model.

The follow-up results of the two-tailed t test, namely the one-tailed t test, obtained an average value of 88.3 for the experimental class and 69.0 for the control class. It can be seen here that the average experimental class is higher than the control class. So it can be concluded that the contextual thinking abilities of students who use the SAVI with recitation strategies are higher than the contextual thinking skills of students apply conventional learning models. The conclusion that can be drawn is that the SAVI with recitation strategies is effective in improving the contextual thinking skills of class VIII students of SMP Negeri 1 Jetis Ponorogo on the theme of the human respiratory system.

This result is supported by several findings that the SAVI learning model is effective in increasing the achievement of learning objectives, especially in the natural sciences subject, namely, first the findings by (Dewi et al., 2020) that the application of the SAVI accompanied by puzzle media can improve students' problem-solving abilities in the natural sciences subject. Second, findings by (Fitriyana et al., 2020) that the application of the

SAVI assisted with flashcard media can increase student activity and learning outcomes in science. Third, findings by (Yulandra & Pujiastuti, 2019) that the application of the SAVI and STAD models to science learning can increase teacher activity, student activity, and student learning outcomes.

The results of this study are supported by several other research findings above, indicating that through the integration of two appropriate learning models, it can have a positive effect on students' thinking abilities (Fadhilah et al., 2022) which in this study is the integration between the SAVI associated with recitation strategies. Teachers can use the SAVI associated with recitation strategies or with other learning models and strategies as an alternative so that learning is not monotonous and students do not feel bored, so students' ability to think contextually and other abilities can be improved (Sihotang et al., 2020). The application of SAVI-based multiple representation is effective in increasing students self-efficacy (Anggraeni et al., 2023). SAVI model can train student's problem solving skills, consisting of formulating identifying problems, formulating problems, organizing information, finding solutions, and choosing solution (Handini et al., 2023). Socioscientific issues can be well received by teachers in learning, and socioscientific issues play an effective role in science learning in junior high schools (Gustiawan et al., 2023). PBL STEM learning can improve students critical thinking skills and get positive responses (Putri et al., 2020). Picture storybook with a chapter of excretion system in human can increase students' interest in science lessons (Panjaitan et al., 2021).

Students in the process of learning activities go through several stages in the SAVI model. These stages include preparation, delivery, training and delivery of results. In addition, there are recitation strategy stages, starting from receiving assignments, doing assignments and being accountable for the tasks that have been done. SAVI places more emphasis on students to take part in the learning process actively. Actively solving a problem in the form of a group, listening to what the teacher and friends explain, and daring to explain what they know. While the recitation strategy emphasizes learning that can teach concepts in more depth by giving special assignments to students to work on outside of class hours and then the results can be accounted for in class.

The ability to think contextually is important for every student to understand learning. Students who have good contextual thinking skills can apply what they get at school and relate it to what is around them in everyday life so that their learning is meaningful. Meaningful learning means learning that is useful in the real world. In addition, students more easily understand the material presented if it is associated with daily activities. SAVI learning with recitation strategies can develop contextual thinking skills.

Conclusion

Based on the results of the research that has been done, it can be stated that the SAVI learning model with a recitation strategy is effective on students' contextual thinking skills. This is evidenced by the results of the one tailed t test with a p-value of 0.000, which means it is lower than alpha (0.05), higher than the control class. The average value of the experimental class was 88.3 and that of the control class was 69.0. So that the SAVI learning model with a recitation strategy is effective in increasing the ability to think contextually.

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