



Implementation of a Cooperative Learning Model in 21st Century Indonesian Language Learning in Madiun City Vocational Secondary Schools in 2022/2023

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Abstract. *Today's learning process is constructivist in nature through students experiencing what is learned cooperatively and constructing experience into knowledge. This learning model includes an active, natural, process-based learning model that is driven by high learning motivation to master competencies for completing tasks/problems. After having high motivation, with self-cooperative learning students will continue to experience learning and construct experience into knowledge. Knowledge will continue to be refined through the process of experience through accommodation and assimilation events in real life.*

Keyword: *Cooperative model, constructivist scientific approach*

1. INTRODUCTION

The constructivist learning paradigm has been launched by the Indonesian Ministry of Education and Culture through the application of a scientific approach based on higher order thinking skills (HOTS). Constructivism is a new learning strategy that combines the material taught with the reality of everyday real life and encourages students to make connections between the knowledge they have and the reality of real life (Umaedi, 2003). In its implementation, learning is carried out naturally, joyfully and meaningfully through students' work and experience activities, rather than receiving knowledge from the teacher in a behavioristic manner. In this way of learning, experiential learning occurs. With this way of learning, students can feel a close relationship with nature and their fellow students and can expand their knowledge to develop broader knowledge (Suharto, 2011).

Through this new way of learning, students can accommodate, internalize input, and refine their knowledge to become better (Mudjiman, 2007). Knowledge according to the constructivist view is built by humans themselves little by little. The basic idea is that understanding of knowledge can further develop if it is always faced with new situations, faced with tests through the acquisition of new input. Students will experience accommodation and assimilation dynamically and continuously to improve their knowledge. A person's knowledge is not finished once but goes through a continuous development process (Suharto, 2015; Suharto, 2011).

The essence of the constructivist view is the idea that students must discover for themselves and transform complex information into other situations continuously until they find the final knowledge that is theirs. Therefore, learning scenarios must be set in the construction process rather than receiving knowledge from the teacher. Students build their knowledge through active and constructive involvement in learning scenarios to gain knowledge (Suharto, 2015). This learning strategy is included in the active learning model. The characteristic of active learning is that students actively experience what they are learning (Mudjiman, 2007: 53). Constructive learning is an active, constructive, cumulative, and goal-directed process (Duffy, et al., 1992).

To implement the above process-based experiential learning strategy, the Ministry of Education and Culture, starting from the 2013 Curriculum, has launched a scientific approach that offers implementation through four learning models, namely problem-based learning models, project-based learning models, discovery, and inquiry. Learning with a scientific approach essentially has the following characteristics, among others: oriented toward student activities; based on science process skills in constructing concepts or principles; involves cognitive processes that stimulate the development of students' higher-order thinking skills. This scientific approach-based learning is seen as more effective in terms of results compared to traditional learning. Research shows that in traditional learning, teacher retention of information is 10 percent after 15 minutes and contextual understanding increases to 25 percent. In scientific-based learning, retention of information from teachers is more than 90 percent and after two days the acquisition of contextual understanding grows to 50-70 percent (Daryanto, 2014: 55). The steps of a scientific approach can generally be formulated as follows: (1) observing; (2) ask, (3) collect information; (4) associating/reasoning/processing information, (5) communicating.

To learn scientifically, higher order thinking skills are required. These 21st century skills are the 4Cs which consist of critical thinking skills, creative thinking and innovative skills, collaborative abilities and communication skills. Currently and in the future, the world of work demands integrity, initiative, motivation, teamwork, ethics, willingness to learn, commitment, toughness, communication, honesty, logical arguments, and so on. Also have faith and devotion to Allah the Almighty, creative-innovative-critical thinking, problem-solving skills, learning to learn, communication and collaboration, working tools, information literacy, information technology literacy, living in the world of global citizens, life and career, personal and social responsibility, awareness as a nation, cultural awareness, political identity (Suhardjono, 2018; Sajidan, 2018).

High-level thinking abilities (HOTS) contain the main characteristic of minimizing aspects of memory or knowledge. The characteristics of high-level thinking are the active ability to: discover, analyze, create new methods, reflect, predict, argue, and make the right decisions, based on contextual problems; attractive stimuli; and not routine (Ministry of National Education, 2013).

The experiential learning learning model is based on the process skills above, apart from its implementation paying attention to the HOTS-based scientific approach, implementation in the classroom can be combined with a cooperative learning model. Cooperative learning is a learning model through cooperative group discussions, which is another more specific form of learning through experience. Cooperative learning has the equivalent of the word “cooperative learning”.

Cooperative learning is a model of learning through a “cooperative group discussion” experience. Under the umbrella of constructivism, the birth of this model was driven by the growing reality that teachers are no longer seen as omniscient sources of information. Teachers do not have to teach continuously, students can also teach each other with fellow students. Research shows that learning by peers (peer teaching) is more effective than teaching by teachers. On the other hand, several reasons accelerate the use of this cooperative learning model, namely (1) many children are raised antisocially due to little parental care (father and mother: working, divorced); (2) the rapid flow of available information (both from friends and other sources) so that students are taught enough to find the information themselves; (3) the increasing number of people and rapid urbanization, thereby increasing competition and

coexistence without ties of feelings. How is it different from the “discussion with the whole class” technique that we have been applying in class? Korp and Yoels’ research notes that if a class is large (consisting of approximately 40 students), at most only 4 to 5 students will spend 75 percent of the time interacting. Encouraged by this experience, Jonhson (1989) stated that this condition could be overcome by cooperative group discussions (Lie, 2005).

The reasons above are what accelerate the calling of schools to foster bonds of brotherhood, creating a positive dependency between students in line with John Dewey's statement that schools are miniature communities. In schools, it is necessary to create a positive culture of fraternal cooperation by forming a learning community, so that social habits, and social interactions (like working together, debating, discussing, always trying to compete with those of the debating opponent) produce collective energy (synergy) that can increase learning outcomes (Jonhson, Sharan, Thelen in Joyce, et al. 2000). "The social model, as the name implies, emphasizes our social nature, how we learn social behavior, and how social interaction can enhance academic learning." Spivey (in Brown, 2000) under constructivism says “constructivist scholarship can focus on individuals engaged in social practices on a collaborative group, or global community”. Classroom management must be immediately changed by developing cooperative relationships, developing a positive culture through integrative, dynamic, and productive means. In this way, students' activeness in exchanging various information and techniques, and applying and analyzing research, can train them to be democratic and social, facilitating the formation of character, self-pride, skill development, and social solidarity, in addition to academic goals. Teachers are advised to form groups whose members are heterogeneous. In heterogeneous groups, those who are good at teaching the weak, those who know to tell those who don't know, those who are quick to understand encourage their slow friends, those who have ideas immediately make suggestions, and so on (Umaldi, 2003).

In line with the incessant implementation of this new model of learning, the latest issues regarding character education (2010 Education Day speech by the Minister of National Education) and multicultural education, are very relevant for us to pay attention to as an aspect of the achievement or nurturant effect of our education. Through cooperative learning, classes can be formed into heterogeneous groups, so that students do not only associate with friends from the same group (religion, intelligence, ethnicity, socio-economic class, race, ethnicity). Let us reject the phenomenon of homogenization which we do not realize has killed the multicultural

character. Let us instill the spirit of understanding and appreciating differences to become a synergistic force to increase learning outcomes (Lie in Suwandi, 2010).

This character education is also suitable for implementation with the experiential learning model (Mutohir, 2010). He explained that “a method that encourages logical thinking and meaningful learning is experiential learning”. The experiential learning approach is a learning approach that emphasizes direct and real experience in the field. In this context, students try to find their learning outcomes (learning points) from the activities carried out through stages called reflection and review of experience (review).

Cooperative learning can be translated generatively into cooperative learning. According to Slavin (translated by Nurulita, 2008), cooperative learning is student team learning. This model was developed by John Hopkins University. This learning model contributes to the idea that students who work together in learning and are responsible for their teammates can make themselves learn equally well.

Cooperative learning is different from competitive and individual teaching (Lie, 2005). Competitive teaching can foster an atmosphere of competition among students which can develop into an atmosphere of hostility. In competitive teaching, to win the competition a student must beat other people, and other people must be knocked down to survive (Darwin's theory). The evaluation carried out aims to place students who pass and fail. This teaching atmosphere can give rise to two possibilities, namely it can create motivation or damage motivation. In individual teaching, students are taught at an individual pace, there is no competition, and the classroom is arranged individually (self-access). This way of learning is based on the assumption that people can learn on their own, no one else can help except themselves. Ralph Emerson said, "Believe in yourself, don't care about others." Success is not compared with friends, but with oneself with predetermined standards. If the class has more than 30 students, it becomes difficult for the teacher to organize. This individualized teaching is now unpopular.

Different from cooperative learning. In cooperative learning, an atmosphere of cooperation is created in which students bond positively. Not just forming groups, but groups where members help each other. There are five conditions for cooperative groups according to Roger and Johnson (in Lie, 2005):

a) Positive interdependence. Groups of students are arranged like links in a chain that need each other, b) There is individual responsibility. Each group member receives a division of tasks

in line with the distribution of teaching materials from the teacher, c) A face-to-face event occurred. They had a discussion face to face, d) Communication occurs between members. They exchange information with each other, e) There is an evaluation of the group process. An assessment is held where the group score is the sum of the individual scores and f) the Teacher is a facilitator.

To carry out cooperative learning, a process is needed that involves the intentions and skills of group members. This intention is the intention to be open and work together for mutual benefit. Because of this, we need tips created by teachers, namely learning scenarios that can foster pleasure and excitement so that this intention is born. 3 minimum things need to be considered in managing this class, namely grouping, the spirit of cooperation, and spatial arrangement.

Schools are miniature heterogeneous and cooperative societies, therefore creating heterogeneous groupings (gender, religious background, ethnicity, economics, academic ability). If the basis is academic ability, for example, make each group consist of 4 students consisting of 1 student with high ability, 2 students with medium ability, and 1 student with low ability.

Compared to homogeneous grouping, heterogeneous grouping is preferred by teachers. This is due to the following things: providing opportunities to teach each other; improving relations between races, ethnicities, etc.; making classroom management easier, because there is 1 highly skilled person, the teacher gets a teaching assistant for every 3 students; A person with high abilities needs to live a social life so that he is not selfish and by teaching peers (peer teaching) he will be able to increase his mastery and internalization of new knowledge/skills.

This method of heterogeneous grouping is often protested by parents of students because they do not want their children to be put in the same class as friends who are lower in ability. But what if they are grouped homogeneously? In a homogeneous class, it may be easier for teachers because they do not "accommodate" diverse students, but it becomes difficult for students to develop their social and emotional competence because the productive community that accommodates them does not foster these characteristics. Lie (2005) suggests that the groupings be changed frequently (in pairs, threes, fours, fives). Don't make permanent groupings, although they save time, they bore students.

Each member of the group must have a spirit of mutual cooperation, a cooperative spirit, a spirit of cooperation (Lie (2005: 48). For this purpose, teachers must develop students with

various tips so that their spirit of mutual cooperation grows. These tips, for example, create a group identity (hats for example), group greetings or cheers, and so on.

Classrooms are arranged in a varied manner, not monotonous. This arrangement takes into account the size of the class, the number of students, tolerance for noise that disturbs the next class, and so on. These forms of arrangement include long tables, horseshoe shapes, classical, row tables, and so on (Lie, 2005).

Similar to the example of the application of the experiential learning model in front, the application of the cooperative learning model is carried out by adapting learning activities (in the syllabus) into the steps (syntax) of the learning model that will be applied.

There are many cooperative learning models. According to Lie (2005), these include: looking for a partner (make a match), exchanging partners, thinking in pairs of four (think-pair-share), sending greetings and questions, numbered heads, structured numbered heads, two guests left. (two stay two stray), around the group, jingling buttons, around the class, small circle big circle, bamboo dance, jigsaw, telling stories in pairs. According to Joyce et al (2000), who group cooperative learning in the social family model, the types of cooperative learning are partners in learning, group investigation, role-playing, and social research (jurisprudential inquiry). Slavin (translated by Nurulita, 2008: 11) lists the types of cooperative learning models, namely: Student Team Achievement Division (STAD = division of student team achievements), Team Games Tournament (TGT = team tournament), Jigsaw II (puzzle II), Cooperative Integrated Reading and Composition (CIRC=cooperative integrated composing and reading), Team Accelerated Instruction (TAI=accelerated team teaching), Group Investigation (GI=group investigation).

Below we will present a brief description of two examples of the STAD and TAI cooperative learning models as follows. The first is STAD which is one of the oldest and simplest cooperative learning models. This model is most widely applied from the second to twelfth grade (Slavin, translation Nurulita, 2008: 143). This model is best for beginning teachers who are new to using a cooperative approach.

The motivation for using STAD is so that students support or help each other in mastering lessons. For this motivation, team activities are comparing answers, discussing discrepancies, giving each other quizzes, helping those who don't understand, and so on. Apart from that, STAD's motivation is to create an understanding that learning is valuable, important, and fun. The STAD model consists of five main components which are also learning steps in the

classroom, namely: class presentations, teams, quizzes, individual progress scores, and team recognition (Slavin, translated by Nurulita, 2008).

These five steps can be seen in the table as follows: (1) The teacher provides an introduction to the lesson material. In delivering lesson material, teachers can use audio-visuals to carry out direct teaching or teacher-led discussions that encourage students to pay full attention. The material consists of opening, development, guided practice; (2) Divide students into heterogeneous team groups, 1 group of 4 people. The team gathers to study worksheets or other material. It usually involves the same problem so members can compare answers and correct them. The most important thing for a team is to make its members do their best for the team. Make sure students work in teams so that all team members master the lesson; (3) All students individually take the quiz. Once finished, students return to their desks; (4) Giving individual progress scores to be added up in groups. Individually first so that students are responsible for the team. Make students feel like they are contributing to the team; (5) Awarding certificates or other awards. Team recognition.

The second is TAI (accelerated team teaching) which was developed by Slavin, Leavey and Madden. TAI is a combination of individual and cooperative learning models. In this way, students enter an individual atmosphere according to their placement and then continue at their own pace. The steps for the TAI learning model according to Slavin (translated by Nurulita, 2008: 196-199) are as follows: (1) group members work on different lesson units; (2) teammates check each other's work results using answer sheets, and help each other solve problems; (3) unit tests are carried out individually; (4) scores are calculated by monitoring students; (5) every week the teacher adds up the scores from each unit completed by each team (6) gives a certificate to the team that exceeds the score based on the last test score with extra points for the answer sheet and homework completed. students are responsible for checking each other and managing the material presented by the teacher; (7) teachers can continue teaching to small groups.

Yulianto (2009) developed the TAI learning model steps as follows: (1) the teacher forms heterogeneous groups; (2) teachers conduct placement tests to place students in individual programs; (3) the teacher teaches the material; (4) students study curriculum material based on the results of previous placement tests and work on existing assignments in groups; (5) the teacher calculates the group scores; (6) the teacher teaches classically for about 10 minutes; (7) twice a week students are given tests on facts; and (8) every three weeks the teacher stops the

individual program and continues teaching activities as usual for a week.

Based on the two sources above, it can be concluded that the TAI steps are: (1) the teacher forms heterogeneous groups, (2) the teacher conducts placement tests for individual programs, (3) the teacher teaches the material, (4) individually and in groups of students study the subject matter, (5) the teacher gives unit tests, (6) the teacher calculates group scores, (7) the teacher gives briefings, (8) twice a week the teacher gives fact tests, (9) the teacher gives certificates. According to the description above, in TAI there is individualization of students, where students learn at their own level of ability. Students who are not yet able can rebuild the basics so that they can move more smoothly to the next stage.

Apart from these two types of learning models, there are many more that can be explored to be developed and used in the classroom in order to stimulate and develop students' communication and collaboration skills in this era of Industrial Revolution 4.0.

2. RESEARCH METHOD

This research was conducted using descriptive methods and a qualitative approach. The research was conducted at high schools in the East Java region for the 2022/2023 academic year. Data collection uses documentation, observation and interview techniques. Documentation techniques are used to examine documents, including lesson plans, question papers and student work, observation techniques are used to observe practice or learning activities in class, interviews are used to deepen understanding of data for teachers, students and related parties. Checking the validity of the data uses source triangulation and engineering triangulation techniques. The data analysis analysis technique uses interactive model data analysis techniques according to Miles and Huberman.

3. RESULT AND DISCUSSION

1) Teacher Understanding

Teachers' understanding regarding constructivist learning features and their linear relationship with their implementation in an integrated manner with cooperative learning models, and high-level thinking skills (HOTs), is quite high. The three questionnaire questions that were reinforced by interviews showed 100 percent correct answer choices (CW02-2P1).

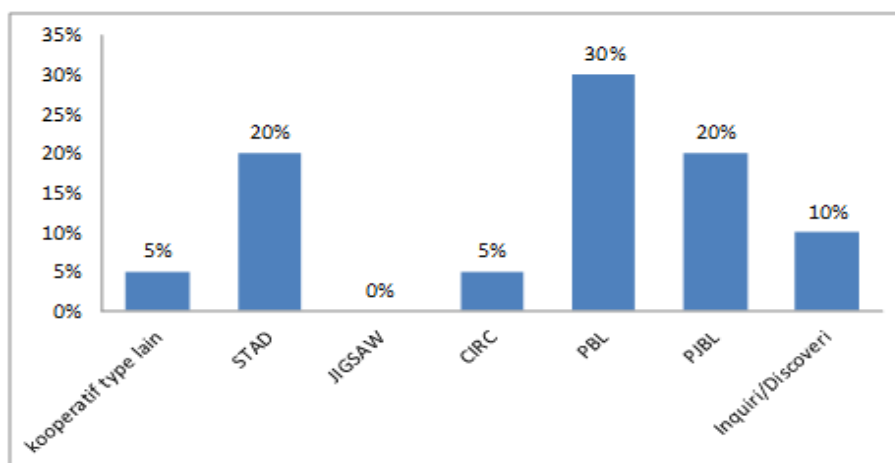
On the basis of this fairly good understanding and driven by experience that so far it has had a positive impact on improving the quality of the learning process and learning outcomes, the teachers agree that in the future it is believed that the cooperative learning model can be used as a stimulant or means for developing students' collaborative skills that support higher order thinking skills necessary for living in a 21st century society (CW03-P2).

2) Frequency of Use Cooperative Learning Models

From the questionnaire questions which were reinforced by interviews, it was reported that only 65% of teachers often used it, and 35% still rarely used the cooperative learning model (CW04-P3). From interviews, information was obtained that the reason why teachers still rarely use it is because they feel doubtful that the lesson will not run as it should, so teachers combine or even switch to conventional methods such as lectures or expositorys. Even though the RPP has been designed for learning to use a cooperative learning model, in practice in the classroom it still uses the conventional model (C02-P3).

3) Variations in the Use of Cooperative Learning Models

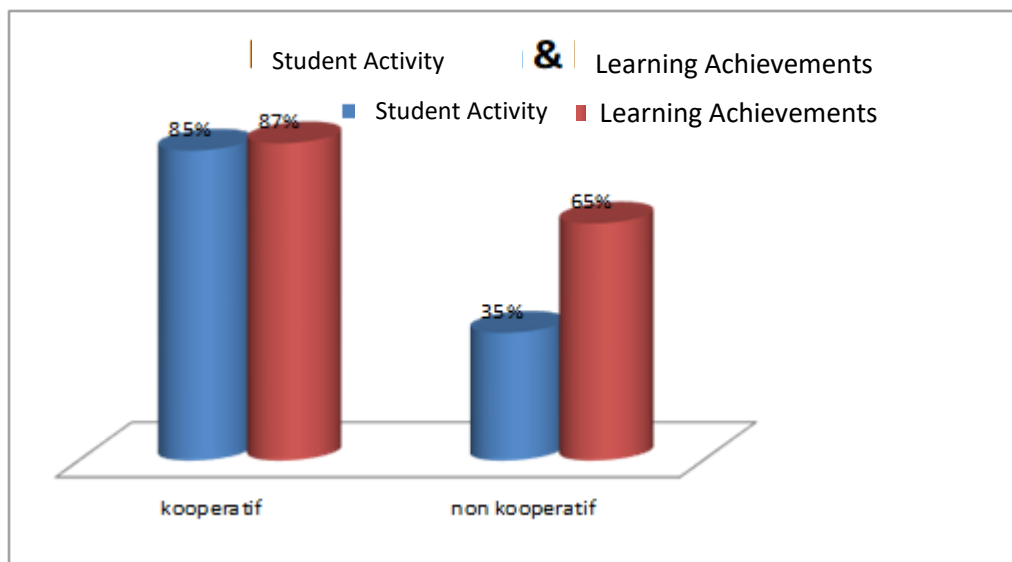
From the questionnaire questions which were reinforced by interviews, it was reported that of the 65% of new teachers, 60% of the teachers often used a variety of cooperative learning models, and 40% of the teachers relied on the 4 learning models recommended by the Ministry of Education and Culture under the cooperative scientific approach only. This is driven by the example that the average lesson plans that can be downloaded from the internet on average implement learning models under a scientific approach, including PBL, PJBL, discovery or inquiry. If depicted visually, the variation/frequency of use of learning models is reflected in the graph as follows:



Graph 01: Variations in the Frequency of Use Cooperative Learning Models

4) Effects on the Quality Activity and Achievement Gains Using the Cooperative Learning Model

From simple experiments, reinforced by questionnaires and interviews, by comparing average scores, it was reported that students' activeness in learning using cooperative learning was 85% greater than in classes using the conventional model, only 35%. Furthermore, for learning outcomes in learning using cooperative learning, an average score of 87 was obtained, which is greater than in classes using the conventional model, which was only 65%.



From the presentation of the results of this research, it can be discussed as follows. The cooperative learning model has been well understood theoretically, its benefits have been felt in the classroom, so that in the future it is believed that the cooperative learning model is a good model for learning. However, even today there are still a small number of teachers who are still hesitant to use it to its full potential. There are concerns among teachers that the student learning process will experience bottlenecks due to role pessimism and low student motivation. Even though the RPP has been designed to use a cooperative learning model, in practice in the classroom it is not necessarily implemented well. Teachers have not optimally used cooperative

learning models or even replaced learning models with conventional lectures.

If teachers still insist that they have to lecture, then the long-awaited model of constructivist humanistic cooperative experiential learning so that students can experience what they are learning and students construct their experiences into knowledge will not be realized soon. In fact, with fun and exciting learning steps, students will be more joyful and learning in taking lessons. The steps for learning through experience are (1) identifying concrete experiences that students have had (concrete-personal experiences); (2) the teacher adds complementary materials for the children's memories of their experiences; (3) students carry out observations and reflections (field visits or discourses to observe and reflect on the steps that have been taken; (4) students carry out discussions to get responses about the results of observations and reflections (sharing experiences); (5) the teacher provides debriefing for consolidation ; (6) students conclude the concept resulting from the discussion (formatting abstract concept); (7) students try concepts to solve new problems (testing in new situations) (Suharto: 2011). Learning steps that can be implemented cooperatively students will experience humanistic learning , can feel the benefits of experiencing learning and construct the learning experience into knowledge. This is very different compared to the expository or lecture model. In a lecture the teacher is the only one who is active, while the students are passive in coming, sitting, listening, taking notes and memorizing.

In fact, in the constructivist humanistic cooperative experiential learning model, this does not mean that the teacher does not get the opportunity to lecture, the teacher may lecture, but the teacher's lecture needs to be adapted to the step features of the model. In the briefing or complementary material phase, the teacher can give a lecture there to add to students' ideas that still need to be completed or refined.

Based on this study, it can be concluded that the implementation of the cooperative learning model has potential and is effective in learning Indonesian at school. Its implementation can be flexibly combined with other innovative learning models according to the learning paradigm recommended by the Ministry of Education and Culture, namely the constructivist experiential learning approach. Thus, it can be concluded that the cooperative learning model that has been implemented so far in schools, although not all teachers have implemented it optimally, can be used in the framework of learning in the 21st century industrial revolution which is based on collaborative principles, communication, critical thinking and creative thinking.

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