# Effectiveness of Cooperative Learning Model in Economics Subject on Student Engagement of High School Students in Tegal Regency

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**Abstract**:

Improving the quality of human life of a country is needed in an era of civilisation that continues to experience changes from all aspects, especially technology and information. The ability that students have is inseparable from the learning process carried out at school by involving teachers, students, learning resources and learning facilities. This study aims to find the effectiveness of cooperative learning models in Economics subjects on student engagement. The experimental method with a quasi-experimental approach was used to find out the results of the study. sampling technique using Cluster Random Sampling. In this study, the population was 78 class X students and the research subjects used 52 students for the control class and the experimental class. Hypothesis testing using independent sample t-test. The results showed that the cooperative learning model in economic subjects was effective and significantly affected student engagement in class X students of SMA NU Hasyim Asy'ari Tegal with a t-table value of 3.964 with a sig value. 0,003<0,05

**Keywords**: Cooperative Learning, Student Engagement, Economics Subject

## Introduction

Education is a means for people to improve their quality of life (Dewi, 2020). Improving the quality of a country's human life is needed in an era of civilisation that continues to experience changes from all aspects, especially technology and information. The younger generation, in this case students, are required to have high abilities in problem solving and analytical power. The ability to solve and analyse power is obtained from their learning process both in the social environment and family environment. The social environment which has the aim of providing students with the ability to master various abilities to prepare for life in the future is part of the school environment (Herlina, et al., 2020).

The abilities possessed by students are inseparable from the learning process carried out at school by involving teachers, students, learning resources and learning facilities. Ayunda, et al. (2023) stated that the purpose of learning is that students are able to achieve aspects of competence, namely skills, knowledge and attitudes through a series of learning activities. Efforts made to achieve learning objectives can be realised through effective learning and student engagement in the learning process. Student engagement or student involvement in the learning process has an important role in educational output in the form of student competence. Student engagement has a relationship with accounting skills in students (Yanto, et. al., 2011). Student learning outcomes are also influenced by one of the important elements in learning, namely student engagement during the learning process (Tin, 2012). High student achievement is influenced by student engagement in the learning process (Sa'adah and Ariarti, 2018).

Student engagement is needed by students to achieve their learning achievements, especially in economics subjects that require a lot of theoretical understanding. Australian survey of student engagement (2010) states that academic challenge, active learning, student-teacher interaction, educational experience and learning environment are factors contained in student engagement. The higher the student engagement, the better the competence (Hamzah and Yanto, 2015). However, the data obtained based on observations made that the involvement of students at SMK NU Hasyim Asy'Ari Tarub in the learning process of economic subjects is less than optimal. This has an impact on the learning outcomes achieved by students. Only 40% of students who have grades above the KKM in economic subjects. Therefore, it is important for teachers to increase student engagement in the learning process so that learning objectives can be achieved properly. The interaction of students and teachers in classroom learning is influenced by internal and external factors (Sardiman, 2012).

One of the external factors that influence student involvement in the learning process is the learning model used by the teacher. The learning process that is still conventional with teacher-centred learning methods makes students have limitations to play an active role in the classroom in economic subjects. The lack of active role of students in the learning process causes problems in learning such as not focusing on understanding the material presented by the teacher, not listening when the teacher gives an explanation, even doing other tasks during the learning process of economic subjects. This is one of the triggers for student learning difficulties which have an impact on learning outcomes.

Declining learning achievement is influenced by emotional, behavioural and learning difficulties experienced by students (Sa'adah and Ariati, 2018). For this reason, students need to increase their involvement in learning through learning methods that involve many students during the learning process. Sinaga (2017) revealed that cooperative learning has a positive effect on student learning outcomes. TGT

model cooperative learning effectively improves economic learning outcomes compared to conventional models (Hardi and Rino, 2021). Ramadanti and Yanda (2018) revealed that through cooperative learning students can improve achievement, have more positive interpersonal relationships and have better self-esteem. However, this is not in line with the results of research conducted by Hamzah and Yanto (2015) that active learning contained in the cooperative model has no effect on students' forensic accounting competence. There are differences in the results of research and data obtained by researchers. Therefore, this study aims to determine the effectiveness of the cooperative learning model in economic subjects on student engagement.

## Literature Review

### Student Engagement

Student engagement is a process of student interaction in learning that shows interest, attention and effort to achieve learning goals and good learning outcomes (Gunuc and Kuzu, 2015). Student engagement is also defined as student participation in academic activities shown through behaviour, attitude and cognition (Utami and Kusdiyanti, 2014). Trowler (2010) states that there are two aspects contained in student engagement, namely academic aspects and non-academic aspects. In contrast, Fredrick (2004) explains that student engagement is a form of student behaviour that has an attachment to classroom activities which is manifested in behavioural engagement, cognitive engagement and emotion engagement. This behaviour can be seen from the involvement and time allocation used by students to follow the learning process and complete assignments. Axelson and Flick (2015) define student engagement as a student's involvement in learning and how interested they are in the classroom, institution and environment. Student engagement is an important part of the learning process that can affect learning outcomes with factors contained in student engagement (AUSSE, 2010). Active learning, student-teacher interaction, academic challenge, educational experience and learning environment are five factors of student engagement (AUSSE, 2010).

### Cooperative Learning

Cooperative learning is a learning strategy to achieve learning objectives by dividing students into several small groups to work together to solve problems with a heterogeneous structure of members in the group (Sutomo, 2017; Utari et al., 2018; Wijaya and Arismanundar, 2018). Through learning that involves cooperation between students, students are expected to solve problems by discussing and asking each other between group members, besides that students can think critically so that the material presented can be easily understood by students (Danuri, 2017). The cooperative learning method presents several

stages of learning that involve interaction between students. the interaction is used by the teacher to provide material (Sirait, 2021). Wijaya and Arismunandar (2018) mentioned that this method emphasises collaboration between students, so that students play an active role in learning and contributing to their group. According to Solihatin and Raharjo (2007) cooperative learning is an attitude in working to help between members who are organised in groups, while the success of learning is strongly influenced by the involvement of each group member. Cooperative learning is a learning activity with a group pattern that has indicators of positive interdependence between students, responsibility, communication and evaluation skills, to foster cooperation between students to achieve productive learning processes and results (Pangestika, 2019).

## Research Methodology

### Research design

The type of research used is experimental research, that experimentation is a design to test the impact of a treatment (intervention) on research results, or it can be said that experimental research is used to see the causal relationship that researchers want (Cresswell, 2019). The experimental research design used is a quasi-experiment with the type of randomised pretest-posttest control group desaign According to Purwanto (2017: 130) states that a good design used to be able to control the threat of internal validity is a randomised pretest-posttest control group design.

### Population and sample

Respondents in this study used Hasyim Asy'ari Tegal High School students. The population in this study amounted to 78 students in class X. The selection of the population was based on the material used in the research on Economics subjects obtained by class X students. Determination of the sample was done through cluster random sampling that is the sample used is a subject contained in the population with homogeneous characteristics (Sugiyono, 2010). The sample or subject in the study was 46 students who were divided into control groups and experimental groups.

### Technique data collection and instrument development

Data were collected using questionnaires and observation. Questionnaires were used to obtain data on cooperative learning model and student engagement. Meanwhile, observation was used to observe students' activeness in the classroom and support research data. This research uses a research instrument adapted from Pangestika, Yanto and Rozi's (2019) research, to find out data related to student engagement. Meanwhile, to measure learning using cooperative learning methods, cooperative learning factors were used (Arikunto, 2011). The adaptation of the research was carried out to minimise the

invalidity of the research instrument. The questionnaire or questionnaire used in this study is a Likert measurement scale with a five-point Checklist form, namely strongly agree (SS), agree (S), doubt (R), disagree (TS), strongly disagree (STS).

**Data analysis techniques**

In this study, the data analysis technique used the independent t-test hypothesis test to compare the experimental group and the control group and find out how the effectiveness of the learning model used on student engagement. Decision making based on independent sample t-test analysis is carried out with the provisions that if the Sig value. > 0.05 then H0 is accepted and Ha is rejected, if the Sig value. <0.05 then H0 is rejected and Ha is accepted

## Results and Discussions

Data obtained from distributing questionnaires as many as 46 respondents, derived from NU Hasyim Asy'ari Tegal High School students who were in the control class and experimental class. From the questionnaire data collected, then the classical assumption test and hypothesis testing were carried out to determine whether the research hypothesis was accepted or rejected. The following are the results of the prerequisite test processed using the SPSS application to see the normality of the research data:

**Table 1 Normality Test of Control and Experimental Classes**

| Class | | Shapiro-Wilk | | |
|---|---|---|---|---|
| | | Statistic | Df | Sig. |
| Student Engagment | posttest eksperimen | .979 | 26 | .852 |
| | posttest control | .971 | 26 | .658 |

From the normality test output above using the Shapiro Wilk test, it is known that the Sig. experimental value at the posttest value is 0.852. Then the sig. value of the Control group at the Posttest was 0.658. From these two outputs it is known that the Sig. value of the two groups is> 0.05. Referring to the basis for decision making in the Shapiro Wilk normality test above, it can be concluded that the experimental posttest and control posttest are normally distributed. The next step after knowing that the data is normally distributed, then hypothesis testing is carried out to determine the effectiveness of the cooperative learning model on student engagement. The independent t-test test is intended to determine whether or not there is a significant difference in the learning outcomes of the posttest of the experimental class and the control class. Decision making based on independent sample t-test analysis is

carried out with the following conditions, If the Sig value > 0.05 then H0 is accepted and Ha is rejected, which means that there is no difference in the average student engagement between the experimental class and the control class. If the Sig value. <0.05 then H0 is rejected and Ha is accepted, which means there is a difference in the average student engagement between the experimental and control classes (Sugiyono, 2010).The following are the results of the Independent Simple t-test test **:**

**Tabel 2 Hypothesis test *Independent Samples t-test***

| | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | 95% Confidence Interval of the Difference | |
| | F | Sig. | T | Df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | Lower | Upper |
| Equal variances assumed | 9.484 | .003 | 3.964 | 50 | .000 | 6.154 | 1.553 | 3.036 | 9.272 |
| Equal variances not assumed | | | 3.964 | 39.207 | .000 | 6.154 | 1.553 | 3.014 | 9.294 |

From the results of tabel 2 the Independent Simple t-test test, it is known that the t table value is 3.964 and sig. (2-taild) of 0.003 <0.05 which means that there is a difference between the average student engagement of students in the experimental class and the control class. So it can be stated that H0 is rejected and Ha is accepted which states that the cooperative learning model in economic subjects is effective in influencing student engagement in class X SMA NU Hasyim Asy'ari Tegal. The difference in the t-test results also showed that student engagement in the experimental class by applying cooperative learning was better than the control class that did not use cooperative learning.

The effectiveness of the cooperative learning model in economic subjects on student engagement in class X SMA NU Hasyim Asy'ari Tegal is known by comparing the post-test results of the control class and the experimental class through the independent sample t-test with a significance level of 5%. Based on the results of hypothesis testing, the t table value obtained is 3.964 sig. value of 0.003. The sig value obtained from the test is smaller than 0.05 so that it can be decided that the cooperative learning model in economic subjects is effective in influencing student engagement in class X SMA NU Hasyim Asy'ari

Tegal. learning activities generated by cooperative learning methods involve students to work together and think critically to solve problems between members of the group, so that students have space to exchange information about their knowledge. The interaction that arises between group members triggers class activeness so that student involvement in class increases. This is in line with the research of Fitri and Wardi (2017) which states that the cooperative learning model applied according to the stages can increase student activeness and learning outcomes.

Cooperative learning is a learning model with engagement that is shown by better student learning interactions compared to the competition model. Ramadanti and Yanda (2018) revealed that student achievement can improve through Cooperative learning. Through learning with methods that focus on collaboration between members supports active learning and creates a conducive learning atmosphere (Pamungkas et al., 2017). Student involvement in the learning process is the main factor of active learning. Through interaction in the learning process, students will think critically, cooperate and have the ability to gain new knowledge to achieve learning objectives, and can make it easier for students to understand the material presented. This is in accordance with the results of research conducted by Wijaya and Arismanundar (2018) that through cooperative learning, students can collaborate and form a critical attitude to solve problems. Meanwhile, the results of research by Yanto et al. (2011) show that student engagement is related to learning outcomes in accounting competencies. Meanwhile, Diastama and Dewi (2021) state that student engagement is a variable needed to increase student learning motivation.

## Conclusion

Based on the formulation of the problem and data analysis and discussion carried out, it can be concluded that the cooperative learning method in economic subjects affects and effectively increases student engagement in class X SMA NU Hasyim Asy'ari Tegal. Therefore, teachers need to apply innovative learning models so that learning is more active and fun so that student learning outcomes increase. This study has several limitations, namely the use of samples and cooperative learning models that are not specific. This study only examined the effectiveness between cooperative learning models and student engagement. Therefore, further research in the future can use various models in cooperative learning and use different samples so that it can be used as a comparative study in improving the quality of education.

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