Increasing Student Participation through the Application of the Jigsaw Learning Model in Citizenship Education Courses

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ABSTRACT

Several factors influence the low level of student participation. One of the causes of low student learning participation in citizenship education courses is the use of learning models during lectures. This research aims to increase student participation by applying the Jigsaw learning model in the Citizenship Education course. This research uses mixed methods, namely combining qualitative and quantitative research. Quantitative methods were used for questionnaire instruments to collect data on student participation levels after implementing the jigsaw learning model. In contrast, qualitative methods were used to analyze data using the Miles and Huberman model of qualitative data analysis, which consists of data reduction, data presentation, and concluding. The subjects in this research were management study program students studying citizenship. The research results show increased student participation in Citizenship Education courses after implementing the Jigsaw learning model, with an average achievement of 88%, which is included in the high criteria. The Jigsaw learning model is appropriate because it can increase student participation in Citizenship Education courses.

1. INTRODUCTION

Citizenship education in universities is regulated in Law No. 12 of 2012 concerning higher education provides a message to provide and teach citizenship education in various study programs without exception (Daria, 2022; Masnun & Pratama, 2020; Widiatmaka, 2021). Citizenship education in higher education level has the main goal of creating students into citizens who are not only intellectually intelligent but also good citizens for the nation and the state (Afrizal & Najicha, 2022; Ahyati & Dewi, 2021; Zulfikar & Dewi, 2021). Apart from that, citizenship education in higher education level aims to form students’ abilities who have critical, creative, innovative, and rational thinking in responding to citizenship issues, forming student character through positive participation in democracy so that they can live together in national and state life; students can participate actively and become anti-corruption citizens; and students become
citizens who are able to utilize technology and communication in the era of globalization to interact with other nations, both directly and indirectly (Gunawan et al., 2022; Hamidah, 2019; Sujana et al., 2020).

One of the determinants of achieving learning objectives, especially in this case, citizenship education, is the level of student participation in the lecture process. Students’ active participation in the classroom has an important role in achieving learning objectives. Apart from being a form of interaction between lecturers and students as a form of responsibility for achieving learning objectives, participation is also defined as active student activity in class by asking and answering questions during the discussion process (Harjianto et al., 2017; Jannah, 2019; Safrida et al., 2017). Student participation can be observed through discussion activities, both class discussion activities and group discussion activities. Through this discussion activities, students are required to be able to communicate both with their colleagues and with lecturers (Habibi et al., 2018; Safrida et al., 2017).

Yogyakarta State University, as one of the State Universities (PTN) in Indonesia, has implemented the mandate of Law No. 12 of 2003 concerning the National Education System to teach citizenship education courses in all study programs, one of which is in the Management Study Program, Faculty of Economics and Business. Based on the facts discovered by researchers during two meetings in the citizenship education course, the lecture process was carried out using group projects and lecture methods by lecturers who taught the course. Lectures using the lecture method make the learning process centered on the lecturer, so it can cause several weaknesses, it can cause a boring learning atmosphere because there is no interaction between the lecturer and students (Adiko, 2022; Sueni, 2019; Suweta, 2020). The success of the teaching and learning process is very dependent on the lecturer, and teaching only emphasizes providing as much material as possible to the lecturer (Nuryasana & Desiningrum, 2020; Thomas & Setiaji, 2014). Learning using the lecture method can also increase the potential of students who are unable to receive maximum learning material because each student has a different mindset and different abilities.

Other problems were found during the two meetings. Students had very low participation during the lecture process. This can be proven from the number of 49 students; only three people asked questions or responded when the discussion took place, and students often did not respond when the questions were given by the lecturer. The low level of students participation in the lecture process can also be proven when the presenting team was delivering the presentation and other students were busy with their gadgets, so they did not pay attention to the material that was being presented. Apart from that, when the lecturer in charge of the course was giving a group assignment, only one or two of the group members did the dominant work. Basically, the success of Citizenship Education learning is influenced by the professional abilities of educators in determining the learning models or methods applied in the classroom (Asrifah et al., 2020; Karlina et al., 2020; Pratiwi & Wuryandani, 2020). From the problems described above and seeing the important role of student participation in achieving learning goals, it is necessary to increase student participation in citizenship education subjects, one of which is through the cooperative learning model. One cooperative learning model that can be applied to increase student participation is the Jigsaw-type learning model (Astalini et al., 2021; Nuraeni, 2018; Paksi, 2017).

This jigsaw-type learning model involves maximum student participation in the learning process with group members so that they can find inspiration in the learning process (Subandono, 2020; Usman et al., 2022). As explained previously, student participation can be observed through group discussion activities so that active student activities can be created in asking and answering questions so that a communication process can be established between students and lecturers, according to Nurhadi (Kinsella et al., 2017; Suwiwa, 2015b). The jigsaw-type learning model provides students with the opportunity to collaborate with their group members and other group members in the form of group discussions to solve problems or material provided by the lecturer (Pangestika, 2018; Supriyadi & Anam, 2022). Through this jigsaw-type learning model, students have many opportunities to express opinions and manage information so that they can improve student communication and participation.

The Jigsaw type cooperative learning model has the characteristics of cooperation between friends, learning with group friends, mutual learning from different group friends, and listening to each other's opinions from each group member (Hasanah & Himami, 2021; Kusuma, 2018). The jigsaw cooperative learning model introduced by Areson, Blaney, Stephen, Sikes, and Snap in 1978 has several implementation steps, namely (1) students are divided into several groups called home groups, (2) each group member receives different material, (3) each group member is assigned to look for material or topics that have been distributed, (4) after each member has obtained and mastered the material, they are combined with other group members who have received the same material, this group is called an expert group, (5) then each member of the expert group discusses in more depth the material they have obtained, (6) then members of the expert group return to their original group to explain the material they have mastered from the expert group (Kusuma, 2018; Ulpa, 2019).
Several research state that the jigsaw learning model can increase student participation. The use of the jigsaw learning model involves student participation and cooperation so that it can influence learning outcomes. Based on the background of the problems above, student's participation in citizenship education courses needs to be increased. The jigsaw learning model is not only able to increase student’s participation in citizenship education courses, it is also hoped that it can improve student learning outcomes because one of the supporting factors for increasing student learning outcomes is learning participation. Hence, researchers consider it necessary to conduct research related to increasing student participation through the jigsaw learning model in courses. Citizenship Education. This research aims to find out how the jigsaw learning model is applied in increasing student learning participation in citizenship education courses.

2. METHOD

The method used in this research is mixed methods. In this mixed methods research, researchers combine qualitative and quantitative research. Mixed methods is a research method that is used simultaneously between qualitative and quantitative research to obtain more comprehensive data (Hendraayadi et al., 2023; Liu, 2022; Waruwu, 2023). The reason the researcher chose mixed methods was because the data collection technique in this research used questionnaires, observation, and documentation techniques. A questionnaire technique was used to collect data related to the student’s participation after implementing the jigsaw learning model. The questionnaire that had been graded was then made into an instrument in a google form. Researchers used observation techniques during initial observations and when implementing the jigsaw learning model in the classroom, as well as the documentation techniques used, namely document data in the form of student attendance lists, Semester Learning Plans (RPS), and photo and video data that support research. The subjects in this research were all 49 students of the Class D20 Management Study Program.

The indicators in the questionnaire instrument created by the researcher are based on criteria for participation that are visible through physical activities, according to Sardiman, including (1) Visual activities: reading and paying attention; (2) Oral activities: students discuss, ask questions, express opinions, give suggestions; (3) Listening activities: students listen to descriptions during discussions and conversations that take place in class; (4) Writing activities: there are activities to write, copy and summarize learning material; (5) Drawing activities: students carry out activities to make concept maps, draw graphs, diagrams, and so on; (6) Motor activities: making models and conducting experiments; (7) Mental activities: students solve problems, remember, analyze, look for relationships, make decisions; (8) Emotional activities: there is student interest, boredom, joy, excitement (Agustin et al., 2017; Nuraeni, 2018). So based on these criteria, the research indicators in the questionnaire instrument determined by the researcher for the learning participation variable are 1) I ask if there is anything I don’t understand; 2) I participated in discussions with the original group and the expert group; 3) I summarize the material I have obtained well; 4) I note down material from the expert group if something is missing from the material I have summarized; 5) I collect the summary results from the lecturer; 6) I studied the material before the quiz started; 7) I participated in answering questions during the quiz; 8) With the jigsaw model the material is easy to understand; 9) The jigsaw model increases my participation during the lecture. The research indicators are equipped with answer options: strongly agree with a weight of four, agree with a weight of three, or moderate with a weight of two, low with a weight of one, and not at all with zero.

The data analysis used is qualitative data analysis and quantitative data analysis. Qualitative data analysis uses the Miles and Huberman model of qualitative data analysis, which consists of data reduction, data presentation, and conclusion. Data reduction means that researchers select, focus, and transform data from the results of observations that have been made. At the data presentation stage, all information obtained is presented in the form of tables, graphs, diagrams, and conclusions. Quantitative data analysis was carried out to analyze data from the student participation questionnaire that had been distributed using the following formula (Isaleha et al., 2021; Sulistiana, 2022). The guidelines used by researchers in determining the criteria for student’s participation in participating the citizenship education learning using the jigsaw-type learning model in Table 1.

<table>
<thead>
<tr>
<th>Achievements</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>75%-100%</td>
<td>High</td>
</tr>
<tr>
<td>51%-74%</td>
<td>Moderate</td>
</tr>
<tr>
<td>25%-50%</td>
<td>Low</td>
</tr>
<tr>
<td>0%-24%</td>
<td>Very low</td>
</tr>
</tbody>
</table>
3. RESULT AND DISCUSSION

Result

The Jigsaw learning model was applied by researchers in the citizenship education course in the D20 Management class with several steps starting with the first step, namely preparing a learning plan for three meetings with seven different main topics of discussion. At the first meeting, the 49 students were divided into seven groups, and each group consisted of 7 people who were named the original group. Each member of the original group is given a different material to summarize and master. At the second meeting, each member of the seven groups who received the same material was brought together to form a new group called the expert group. When joining an expert group, all members conduct discussions on material they have previously mastered so that all group members can exchange opinions. At the third meeting, a quiz was held to measure the extent of students’ understanding of the material they had studied. In the final stage, an evaluation is given regarding the lectures that have taken place during the process of implementing the Jigsaw learning model, both from the discussion stage with the home group, expert group, and quiz.

The steps for implementing the jigsaw learning model carried out by researchers are based on several previous studies that have been carried out. In the final stage, an evaluation is given regarding the lectures that have taken place during the process of implementing the Jigsaw learning model, both from the discussion stage with the home group, expert group, and quiz. The steps for implementing the jigsaw learning model carried out by researchers are based on several previous studies that have been carried out (Kusuma, 2018; Nuraeni, 2018).

The Jigsaw learning model is applied in the first few steps, and students are divided into several groups called home groups. Second, each group member gets different material. In the third stage, each group member is assigned to search for material or topics that have been shared. In the fourth stage, each member obtains and masters the material obtained, and then they are combined with members of other groups who receive the same material; this group is called the expert group. Each of the five members of the expert group discussed in more depth the material they had obtained. In the sixth stage, members of the expert group return to their home group to explain the material they have mastered from the expert group. Each of the seven expert groups presented their material in front of the class.

Data obtained by researchers after applying the Jigsaw learning model and distributing student learning participation questionnaires to 49 students. Student Participation Data While Taking Citizenship Education Courses showed in Table 2. Student Participation Level Diagram showed in Figure 1.

<table>
<thead>
<tr>
<th>No</th>
<th>Indicator</th>
<th>Strongly agree %</th>
<th>Agree %</th>
<th>Strongly Disagree %</th>
<th>Don’t agree %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I asked if there was anything I didn’t understand</td>
<td>26.5%</td>
<td>73.5%</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>I participated in discussions with the original group and the expert group</td>
<td>71.4%</td>
<td>28.6%</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>I summarize the material I have obtained well</td>
<td>42.9%</td>
<td>57.1%</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>I take notes from the expert group’s material if anything is missing from the material I have summarized</td>
<td>38.8%</td>
<td>61.2%</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>I submitted a summary of the results to the lecturer</td>
<td>40.8%</td>
<td>59.2%</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>I studied the material before the quiz started</td>
<td>48.3%</td>
<td>51.7%</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>I participated in answering questions during the quiz</td>
<td>46.9%</td>
<td>53.1%</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>With the Jigsaw model, the material is easy to understand</td>
<td>46.9%</td>
<td>53.1%</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>The Jigsaw model increased my participation during the lecture</td>
<td>42.9%</td>
<td>57.1%</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
In the research questionnaire, there were nine indicators related to student learning participation. Students were asked to answer the questionnaire with criteria 4 (strongly agree), 3 (agree), 2 (disagree), and 1 (strongly disagree). From the results of filling out the questionnaire, data was obtained that 55% of students chose the answer strongly agree, and 45% of students chose to agree. So, there were no students who chose the answers strongly disagree and disagree from the nine indicators asked regarding student participation in Citizenship Education learning after the implementation of the Jigsaw learning model. The questionnaire data resulting from student participation in citizenship education learning that has been obtained is then analyzed with the results of the achievement analysis. Student Learning Participation Achievements showed in Table 3.

Table 3. Student Learning Participation Achievements

<table>
<thead>
<tr>
<th>No</th>
<th>Indicator</th>
<th>Achievements (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I asked if there was anything I didn't understand</td>
<td>82%</td>
</tr>
<tr>
<td>2</td>
<td>I participated in discussions with the original group and the expert group</td>
<td>93%</td>
</tr>
<tr>
<td>3</td>
<td>I summarize the material I have obtained well</td>
<td>85%</td>
</tr>
<tr>
<td>4</td>
<td>I take notes from the expert group's material if anything is missing from</td>
<td>91%</td>
</tr>
<tr>
<td>5</td>
<td>I submitted a summary of the results to the lecturer</td>
<td>89%</td>
</tr>
<tr>
<td>6</td>
<td>I studied the material before the quiz started</td>
<td>90%</td>
</tr>
<tr>
<td>7</td>
<td>I participated in answering questions during the quiz</td>
<td>88%</td>
</tr>
<tr>
<td>8</td>
<td>With the Jigsaw model, the material is easy to understand</td>
<td>88%</td>
</tr>
<tr>
<td>9</td>
<td>The Jigsaw model increased my participation during the lecture</td>
<td>85%</td>
</tr>
<tr>
<td></td>
<td><strong>Average:</strong></td>
<td><strong>88%</strong></td>
</tr>
</tbody>
</table>

From the results of data analysis using a formula to determine the % achievement of student participation as contained in the research method, the percentage (%) of each indicator is obtained respectively; namely, 82%, 93%, 85%, 91%, 89%, 90%, 88%, 88%, 85% and the average value of all achievements from 9 indicators is 88%. So, if analyzed using the criteria determined by Arikunto, the average score of 88% is in the first achievement, namely between 75%-100% with high criteria, so it can be concluded that there is an increase in student participation through the application of the Jigsaw learning model in citizenship education courses. This can also be proven through researcher observation data during lectures that the majority of students participate during discussions in groups.

The results of research conducted by researchers show there are differences in student learning participation in citizenship education courses after implementing the Jigsaw type learning model. In previous findings, students, when taking citizenship education lectures using the lecture method, showed low levels of learning participation. This is characterized by students being busy with their respective gadgets, not asking any questions, not paying attention when the lecturer explains, and not being active in the discussion process. The application of the Jigsaw type learning model increases student participation as evidenced by students’ active participation in groups, taking notes and summarizing the material provided, asking if there is the material they do not understand, and actively answering questions during quizzes.
Discussion

The results of this research showed an increase in student learning participation through the jigsaw-type learning model with several previous studies that the application of the jigsaw learning model can increase student participation and learning outcomes in swimming theory and practice courses (Suwiwa, 2015a; Ulpa, 2019). Other previous research also showed the results of increased student collaboration in introductory algebra courses after implementing the jigsaw learning model. Apart from that, there are also previous research results that the application of the jigsaw learning model can improve student learning outcomes in mathematics learning assessment courses (Septiani & Qohar, 2020; Seto et al., 2022). The results of the research that has been carried out, the research provide a solution for increasing low student learning participation in citizenship education subjects, which can be done by implementing the Jigsaw learning model. The application of the Jigsaw learning model based on the results of research conducted by researchers can not only increase collaboration, learning outcomes, and student activities but can also increase student participation. Apart from that, the Jigsaw learning model can be a solution for educators of citizenship education courses to apply innovative learning models so that citizenship education courses are not considered monotonous and boring.

The learning process can run well if students in citizenship education courses can participate actively. The high level of participation that students have during lectures not only create a pleasant atmosphere and active learning but also cause increased learning motivation. It will have a good impact on student learning outcomes. Student participation can be said to be active if, during lectures, they always pay attention to the material presented by the lecturer and actively ask questions and answer questions (Maulana & Hamidi, 2020; Solikah & Kusumaningtyas, 2021). Student learning participation is defined as student participation in the learning process, which can be accompanied by student involvement in group activities (Fatmawati, 2019; Frykedal & Chiriac, 2018). The level of student participation can be influenced, among other things, by the learning model or method applied by the lecturer during the lecture process. Learning participation will increase if the lecturer applies a different learning model than usual (Rapanta et al., 2020; Sukendri & Yuli Anggreni, 2022). So, the researchers chose the Jigsaw-type cooperative learning model to increase student’s participation in citizenship education courses.

The Jigsaw-type cooperative learning model emphasizes cooperation between students and heterogeneous groups, which will actively raise student participation because, basically, student participation can be seen when they are involved in working in groups (Subandono, 2020; Supriyadi & Anam, 2022; Suwiwa, 2015a). When forming groups in the jigsaw-type learning model, there will be a home group and an expert group. With discussions taking place in these two groups, student participation will be visible. The Jigsaw-type learning model can increase student participation through mastering various materials during the group discussion process. The participation referred to in the Jigsaw learning model is how students can become part of a group, which includes their participation and role in working with group members. The formation of small groups in the Jigsaw learning model aims to give all students the same role in mastering the material provided and conveying their opinions to other group members. Each student is given the opportunity to participate as a leader in the group so that all students can actively participate in learning activities.

The application of the Jigsaw learning model based on the results of research conducted by researchers has proven successful in increasing student participation by an average of 88% so that it is included in the high criteria. Increasing student participation through the Jigsaw learning model in the Citizenship Education subject, apart from having a positive impact on student motivation and learning outcomes, can also be a determining factor in achieving the learning objectives of the Citizenship Education subject. The Citizenship Education course aims to create good citizens so they can know their rights and obligations and can participate actively in the life of the nation and state. Apart from that, implementing the Jigsaw learning model can create a more active and effective lecture atmosphere.

4. CONCLUSION

The application of the Jigsaw learning model based on research results has been proven to increase student participation in citizenship education courses. The application of the Jigsaw learning model increases student participation, which can be seen during the lecture process, where the majority of students work together in groups by discussing, searching for, and summarizing the material obtained, asking questions about material that is not yet understood, and having the courage to convey their arguments in front of the class members. Other groups are able to answer the questions given in the form of a quiz given by the lecturer. The application of this jigsaw learning model can not only increase student participation but also prevent boredom during lectures. The jigsaw-type learning model can be one solution used by educators to increase student learning participation.
5. REFERENCES


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Nurlatifah / Increasing Student Participation through the Application of the Jigsaw Learning Model in Citizenship Education Courses