Developing a Character of Responsibility and Social Care With a STAD Type Cooperative Model
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ABSTRACT
The behavioral deviations among students such as temper tantrums, disobedience to rules, physical aggression, difficulty in handling frustration, and excessive argumentativeness, negatively affect the value of national character. Therefore, every student needs to possess the characters of responsibility and social care by applying the Student Team Achievement Division (STAD) type model. This study aims to (1) develop the character of student responsibility, social care, (2) describe student learning outcomes, and (3) analyze the effect of responsibility and social care character on student learning outcomes after applying the STAD type cooperative model. This research was conducted using a quasi-experimental method with a time-series design. The purposive sampling method was used to obtained data from 30 students of class VIII-H SMP Negeri 15 Banjarmasin through observation and test techniques and analyzed using the normality test and multiple regression methods. The results showed that (1) the application of the cooperative model type STAD in mathematics learning developed the character of responsibility and social care among students, (2) the average learning outcome tends to increase and is included in the very good category, and (3) there is an effect of responsibility and social care character towards the increase of student achievement in mathematics learning.

Keywords: STAD, Responsibility, Social care, Cooperative model.

1. INTRODUCTION
Nowadays, the majority of the news aired by the media is related to deviant moral problems perpetuated by teenagers and adults. A recent case is the murder of a 6-year-old girl by a 15-year-old teenager. NF was motivated to kill APA due to his addiction to horror and sadistic genre films. According to [34], NF stated that the film named "Chucky," which tells the story of a killer doll played an active role in the murdering process. This shows that it is difficult to become a human being with a noble character [3]. However, the ideal identity of every society is to form faithful, intelligent, creative, and innovative citizens that can be part of a productive workforce [6,7].

Unfortunately, there are lots of obstacles associated with forming individuals with characters related to the national noble ideals [21]. This is due to several reasons, such as the effect of global culture. According to Suryaman [30], literature plays a major role in character formation and change. Furthermore, Kusnoto [13] and Kamaruddin [11] stated that education was implemented to form students’ character. Anshori [2] and Khadafi [12] stated that children deviation indicates the fading in the values of good character existed in them. Therefore, there is an urgent need for character education.

Adolescence, including grade VIII students, finds it difficult to put up outstanding characters due to the emergence of various life's problems at this stage of their lives [31]. In addition, class VIII is a transitional period therefore, students tend to experience ups and downs, which invariably affects their good character. Therefore, it is necessary to guide them at this stage to enable them to maintain and continuously develop good character, thereby preventing deviations [32].

Lickona stated that there are 10 disturbing adolescent behaviors, one of which decreases the responsibility of citizens and increases selfishness [14]. This behavior indicates a lack of responsibility and social care of teenagers.

The observations and interviews conducted at SMP Negeri 15 Banjarmasin indicate that the responsibility and social care character of students is still underdeveloped. This can be seen during the learning process where students are less responsible in carrying out their obligations individually or in groups.
Furthermore, they tend to cheat during quiz and delay when collecting assignments.

Students’ social care is also not properly developed as they exhibit selfish characters when learning without willing to assist their friends with difficulty in understanding the subject matter. In addition, some students have formed the habit of not paying attention to teachers when they are explaining the subject matter. Rather these categories of students prefer chatting with their friends. Harsh words are often uttered by students when talking to their friends.

Furthermore, based on the mid-semester assessment, it was found that student learning outcomes were still low. More than 50% of students have learning outcomes below the minimum completeness criteria, although, in mathematics, their percentage was 70%.

In the process of learning mathematics, a responsibility character is needed both socially and individually to achieve satisfactory results. Most students carried out their assignments seriously and enthusiastically, with the continuous development of social care character while in groups. This is because the students tend to help each other and are willing to work together. Therefore, developing the character of responsibility and social care for students plays an important role in the success of mathematics studies.

It is important to develop the responsibility and social care of students in learning mathematics in order to improve their learning outcomes [26]. Subsequently, this research aims to develop the students’ responsibility and social care which tends to significantly impact on improving their learning outcomes, especially in mathematics.

The problem formulation is as follows.

(1) Does the application of the STAD type cooperative model develop the responsibility character?
(2) Does the application of the STAD type cooperative model develop a social care character?
(3) How effective is the student’s learning outcome through the application of the STAD type cooperative model?
(4) Is there an effect of responsibility and social care character on student learning outcomes in class VIII SMP Negeri 15 Banjarmasin?

The main idea associated with the application of STAD is to drive the students to be responsible and provide mutual help to others to master the skills taught by the teacher (Badar, n.d.). Rusman stated that the application of STAD enables each student to master the subject matter when undergoing a quiz [24]. Therefore, students willing to ensure their group are awarded the overall prize need to help their group mates in studying the given material. They need to teach them and assess their strengths and weaknesses to help them successfully pass the test.

Azzet reported that people with characters have a good personality [4]. Meanwhile, Malinda et al. stated that character education is an effort to foster students’ development to make them better and stick to the existing norms. Among the 18 characters of students, it is important to develop their responsibility and social care [15]. Mastuang et al. [17] and Siburian [27] stated that responsible people carry out their obligations with the courage to bear the consequences for the activities performed. Meanwhile, people with social care always want to help those in need, and they are full of compassion [8][25].

2. METHOD

This is a quasi-experimental research with six meetings and a time series design (Marshall & Rossman, 2014). The population consists of all students of class VIII at SMP Negeri 15 Banjarmasin, numbering 227 people. From this number, the sample of 30 students from class VIII-H was selected and used to carry out this research. The sample was selected by purposive sampling technique in order to obtain a class with responsibility and social care characters based on the teacher’s recommendation and observation. Data were collected using observation and test techniques [16]. Observations were conducted by filling the observation sheet, while a test description was given at the end of each meeting. The indicators for responsibility character are shown in table 1.

<table>
<thead>
<tr>
<th>Character</th>
<th>Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>RESPONSIBILITY</td>
<td>(1) Complete the assigned task.</td>
</tr>
<tr>
<td></td>
<td>(2) Collect assignments on time.</td>
</tr>
<tr>
<td></td>
<td>(3) Carry out individual tasks properly and according to procedures.</td>
</tr>
<tr>
<td></td>
<td>(4) Conduct the duties as a group member adequately.</td>
</tr>
<tr>
<td></td>
<td>(5) Focused on carrying out activities.</td>
</tr>
<tr>
<td></td>
<td>(6) Follow the learning process properly and calmly.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Character</th>
<th>Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOCIAL</td>
<td>1. Assist friends in need.</td>
</tr>
<tr>
<td></td>
<td>2. Pay attention to the teacher</td>
</tr>
</tbody>
</table>
CARE when explaining material in front of the class.
3. Pay attention when other people are talking.
4. Behave or speak politely to teachers and friends.
5. Say thanks to teachers and friends.
6. Williness to work together in groups.

Table 3. Categories of responsibility or social care characters

<table>
<thead>
<tr>
<th>Score</th>
<th>Categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>81 – 100</td>
<td>Becoming a habit</td>
</tr>
<tr>
<td>61 – 80</td>
<td>Developed</td>
</tr>
<tr>
<td>41 – 60</td>
<td>Starting to develop</td>
</tr>
<tr>
<td>21 – 40</td>
<td>Starting to appear</td>
</tr>
<tr>
<td>0 – 20</td>
<td>Not appear</td>
</tr>
</tbody>
</table>

The learning outcomes are assessed based on the following formula. Where N= Final score. The obtained score is interpreted based on categories as shown in table 4.

Table 4. Classification of learning outcomes assessment

<table>
<thead>
<tr>
<th>Score Interval</th>
<th>Categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>90 – 100</td>
<td>Very good</td>
</tr>
<tr>
<td>80 – 89</td>
<td>Good</td>
</tr>
<tr>
<td>70 – 79</td>
<td>Sufficient</td>
</tr>
<tr>
<td>&lt; 70</td>
<td>Less</td>
</tr>
</tbody>
</table>

3. RESULTS AND DISCUSSION

The results of the learning activities for six meetings using the STAD model are as follows:

a. The data of responsibility character

Based on the line diagram in Figure 1, no student was in the not appear category during the six meetings because the responsibility character was starting to appear. However, the starting to appear category that dominated at the first meeting.

b. The data of social care character

Based on the line diagram in Figure 2, there were no students in the not appear category from the first to the sixth meeting. The starting to appear category dominated at the first and second meetings, while the starting to develop category increased and dominated at the third meeting. The developed category dominated at the fourth to sixth meetings and the frequency remained at the fifth meeting and decreased in the sixth meeting. Meanwhile, becoming a habit category seen at the fifth meeting increased at the sixth meeting. Although at the previous meeting, this category did not appear.

The data of learning outcomes. The line diagram shows that the average student learning outcomes have increased and decreased. It increased at the third to sixth meeting and decreased at the second meeting with a moderate category.

c. The analysis results of the two characters affect learning outcomes.

The hypothesis to determine the effect of the two characters on learning outcomes are as follows. There is no effect of responsibility and social care character simultaneously on student learning outcomes. There is an effect of responsibility and social care character simultaneously on student learning outcomes. The basis for making decisions is as follows.
If the value of Sig. < 0.05, therefore Ho was rejected, and Ha accepted.
(2) If the value of Sig. > 0.05, therefore Ho was accepted, and Ha rejected.

Table 5. Probability value ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>541.963</td>
<td>2</td>
<td>270.996</td>
<td>31.124</td>
<td>.001</td>
</tr>
<tr>
<td>Residual</td>
<td>225.088</td>
<td>21</td>
<td>8.701</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>777.051</td>
<td>23</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5 shows that at Sig. 0.000<0.05, the character of responsibility and social care simultaneously affects student learning outcomes.

The simultaneous amount of contribution or effect given by the character of responsibility and social care on learning outcome are shown in Table 6.

Table 6. Coefficient of determination model summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.854</td>
<td>.697</td>
<td>.675</td>
<td>2.95076</td>
</tr>
</tbody>
</table>

The value of the determination coefficient was at 0.697. Therefore, the simultaneous character contribution of the responsibility and social care on student learning outcomes was 69.7%, while 30.3% was determined by other variables not involved in this study.

Table 7 shows a regression equation model used to determine the dominant characters in learning outcomes.

Table 7. Regression coefficient coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>47.87</td>
<td>4.430</td>
<td>10.80</td>
</tr>
<tr>
<td></td>
<td>Responsibility Character</td>
<td>.258</td>
<td>.114</td>
<td>.453</td>
</tr>
<tr>
<td></td>
<td>Social Care Character</td>
<td>.201</td>
<td>.097</td>
<td>.416</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Learning Outcomes

In the Unstandardized Coefficients column, the value of the responsibility character and social care were 0.258 and 0.201, respectively. Therefore the regression equation is as follows.

\[ \hat{Y} = aX_1 + bX_2 \]

With:
\[ \hat{Y} \]: Learning Outcomes
\[ X_1 \]: Responsibility character
\[ X_2 \]: Social Care character

Based on the regression equation above, the value of the constant was 47.870. Therefore it can be interpreted that when the values of responsibility character and social care increase by one unit each, student learning outcomes also increases by 0.459.

Based on the Standardized Coefficients column, the values of the responsibility character and social care were 0.453 and 0.416, respectively. Therefore, because 0.453> 0.416, responsibility has a more dominant effect on learning outcomes than the character of social care.

3.1 Responsibility and social care character

The 6 STAD learning steps indicate that the character of student responsibility is optimized during teamwork and quizzes (evaluation) [10]. When working in teams, each student has the responsibility for group success by completing the assigned task and collecting it on time. During discussions process, they learn to express their opinions, while ensuring that the class conditions remain in a conducive state [18].

Meanwhile, during the quiz (evaluation), students work on assignments individually and try to complete them according to the time given, therefore, it developed the responsibility character. They have the responsibility to stay focused and serious when carrying out their assignments [9]. Sukma et al. and Yaumi stated that responsible people always complete the work they started without giving up due to
circumstances. They also show perseverance, diligence, and disciplined enough to control themselves under any circumstances [29], [33].

The character of student social care is optimized during the delivery of goals and motivation, which are presented by the teacher, and teamwork [25]. The students with a social care character pay attention to the teacher's explanation. Furthermore, during the learning process, they are required to behave or speak politely with teachers and friends [1], [25]. Meanwhile, when working in teams, students are given space to share their ideas or opinions. Those that have mastered the material are allowed to share their knowledge with their group of friends that do not understand. This means that students assist friends in need as a manifestation of their care. It is in line with the research carried out by Nisa and Wuryandani [19], which stated that the characteristics of caring are helping people in need. The character category of responsibility and social care continues to improve, with an increase in the number of students in the sixth meeting. As a result, the STAD type cooperative model applied develops a character of responsibility and social care.

3.2 Learning Outcomes

The results showed an increase in the student learning outcomes between the first and the sixth meeting, from 74.83 to 93.50 in the sufficient and very good categories, respectively. The individual student learning outcomes do not always improve due to the differences in the material taught in each meeting.

In class VIII-H, while learning with the STAD cooperative model, each group member has to try getting the best score during the evaluation process. Therefore, the group gets a good predicate and improves student learning outcomes. Furthermore, students that find it difficult asking their teachers questions have the opportunity to ask their friends during teamwork.

The decline in learning outcomes at the second meeting occurred due to the difficulty of the material. This is in line with the findings of Pasani & Damayanti [23]. Furthermore, the material in the second meeting was to solve a two-variable system of linear equations using a graphical method, which was more difficult than the previous. Therefore, it can be concluded that students have difficulty in determining the graph of the equation and the coordinates of the graph's intersection points. This means that learning outcomes tend to increase and decrease due to the material studied.

3.3 The effect of responsibility and social care characters on learning outcomes

The regression test illustrated that the role of responsibility character was more dominant in increasing learning outcomes than social care. This is because indicators on the responsibility character directly lead to learning outcomes [20]. For example, the first indicator is completing the assigned task, and the third is carrying out individual tasks properly and according to the outlined procedures. In the first indicator, students that can complete their assignments tend to get more satisfying learning outcomes [22]. Meanwhile, in the third indicator, to obtain good learning outcomes, the assignment given has to be carried out properly and according to procedures.

4. CONCLUSION

The conclusions obtained in this research are as follows.

1) By applying the cooperative model type STAD, the responsibility character can be developed.
2) By applying the cooperative model type STAD, the social care character can be developed.
3) Student learning outcomes using the STAD cooperative model tend to increase in accordance with the average learning outcomes at the sixth meeting, which is included in the very good category.
4) The more dominant of the two characters on learning outcomes was responsibility. The suggestions given are as follows.

1) Students need to develop their good character, especially in terms of responsibility and social care, in order to increase their learning achievement.
2) Teachers need to consider the STAD type of cooperative learning model during the learning process due to its ability to develop the character of student responsibility and social care.
3) Schools need to make use of the experimental results to improve education quality.
4) Subsequent studies need to be conducted with the same learning model using different places and subjects.

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