Building Student Soft Skill Ability through Cooperative Learning

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Abstract—The purpose of this study was examined the effect of cooperative learning model on the improvement of student soft skills, the influence of school type on the improvement of student soft skills, and the effect of learning outcomes on the improvement of student soft skills. The research was done through quasi experiment on the type of vocational schools, State Vocational School with “A” Grade, Private Vocational with “A” Grade and Private Vocational with “B” Grade. The study involved 240 students in 6 classes of observation. Data were analyzed using one way anova model. The results show that first, the cooperative learning model influence the improvement of student soft skill. Second, there is the influence of school type on the improvement of student soft skill. Third, there is the effect of learning outcomes on student soft skills improvement.

Keywords—cooperative learning; students soft skill; type school; learning outcomes; quasi experiment; one way anova

I. INTRODUCTION

The education system in Indonesia begins to see that students need to have soft skills. Human resources that will exist in the 21st century are those who have strong soft skills, in the form of creative-productive thinking skills, decision making, problem solving, learning how to learn, collaboration, and self-management [1]. Therefore, in the education process it is necessary to develop learning models that are able to encourage and enhance students' soft skills. Although soft skills are only complementary to hard skills, they are very instrumental in one's success. Research at Harvard University proves that soft skills contribute 80% to one's success, while education in Indonesia actually pursues intellectual intelligence which only plays 20% in determining one's success [2]. The development of soft skills in schools must be based on real life, high-level thinking, student activity, applicative, problem-based learning, authentic teaching, relevance-based teaching, project-based learning, work-based learning, service-based learning, and cooperative learning [3].

Soft Skill by Bernthal Soft Skill is defined as personal and interpersonal behaviors that develop and maximize human performance (e.g. coaching, team building, decision making, initiative). Soft skills do not include technical skills, such as financial, computer or assembly skills [4]. There is growing emphasis in the literature on the importance of 'soft' skills which are now seen as complementary to 'hard' skills and required for successful workplace performance [5-7]. The literature also suggests that there is a lack of emphasis placed on the development of soft skills by many educational institutions. Soft skills are skills often referred to as interpersonal, human, people, or behavioral skills, and place emphasis on personal behavior and managing relationships between people. Soft skills are primarily affective or behavioral in nature, and have recently been associated with the so-called Emotional Quotient(EQ) popularized by Daniel Goleman [6, 8,9].

Previous literature suggests that hard and soft skills complement each other [8,9]. Similarly, a research by Spencer and Spencer indicates that superior performers possess both technical and good behavioral skills [10]. Another study by Rainsbury et al. on Soft skills students and graduates from a variety of business studies programs at a New Zealand tertiary institution reported that graduates perceived both hard skills and soft skills to be more important than did their student counterparts [11]. Previous studies by Ballantine & Larres; Awang Shows an Improvement of generic skills among students when cooperative learning is incorporated in their lesson [12,13]. Students will learn more efficiently in the group learning process [14]. Simon Attle & Bob Baker also found that through cooperative learning students can maximize their professional development [15]. In addition, cooperative learning still has other advantages, namely many attributes of soft skills can be trained, such as teamwork, communication skills, decision making, discipline, time management, honesty and so forth. Stahl in his research found that the use of cooperative learning models can encourage solidarity [16].

From previous research, researchers were interested in conducting the same research on education in Indonesia. The formulation of the problem in the study is: Are there differences in students’ soft skills with the use of cooperative learning models. Are there different types of schools to students’ soft skills. Are there differences in student learning outcomes with students' soft skills.

II. METHOD

In this study used pre-experimental methods designs with the One Group Pretest-Posttests Design which can be described as follows:
Research on the development of cooperative learning models in improving students’ soft skills in terms of the type of school (SMK) and the learning outcomes of students. The type of school in this study is divided into 3 type of vocational schools, State Vocational School with “A” Grade, Private Vocational with “A” Grade and Private Vocational with “B” Grade. Student learning outcomes are also divided into 3, namely High, Medium and Low. The research was carried out through quasi experiments. The study involved 240 students in 6 classes of observation. Data analysis techniques using t test analysis and one way anova test.

### III. RESULTS

#### A. Hypothesis 1

**H0** : \( \mu_1 = \mu_2 \) : There are no differences in students' soft skills before and after the application of cooperative learning models

**Ha** : \( \mu_1 \neq \mu_2 \) : There are differences in students' soft skills before and after the application of cooperative learning models

For data processing hypothesis one using SPSS v.22 with Analyze Compare.

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>Levene’s Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>Sig.</td>
</tr>
<tr>
<td>Activiti y</td>
<td>Equal variances assumed</td>
<td>6,198</td>
</tr>
<tr>
<td></td>
<td>Equal variances not assumed</td>
<td>12,280</td>
</tr>
</tbody>
</table>

Mean Independent Sample T Test shows the following results:

The SPSS output above shows that the sig. (2-tailed) significance is less than 0.05, meaning that H0 is rejected and accepts Ha, meaning that there are differences in students' soft skills before and after the application of the cooperative learning model. Statistics Group data shows the following information:

#### B. Hypothesis 2 :

**H0** : \( \mu_1 = \mu_2 \) : There is no influence on the type of school on improving students' soft skills

**Ha** : \( \mu_1 \neq \mu_2 \) : There is an influence of the type of school on improving students' soft skills

Data processing hypothesis two using SPSS v.22 with ANZA Analyze One-Ways shows the following results:

<table>
<thead>
<tr>
<th>Method</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activiti es</td>
<td>Model Cooperative</td>
<td>187</td>
<td>52,94</td>
<td>24,054</td>
</tr>
<tr>
<td>Model Conventional</td>
<td>175</td>
<td>24,13</td>
<td>20,537</td>
<td>1,552</td>
</tr>
</tbody>
</table>

The table above shows that the average that uses the Cooperative Learning model is greater than using the conventional model.
TABLE IV. HYPOTHESIS TEST

<table>
<thead>
<tr>
<th>Soft_Skill</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
<th>95% Confidence Interval for Mean</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower Bound</td>
<td>Upper Bound</td>
<td></td>
</tr>
<tr>
<td>Negeri</td>
<td>140</td>
<td>44.70</td>
<td>29.013</td>
<td>2.452</td>
<td>39.85</td>
<td>49.55</td>
<td>0</td>
</tr>
<tr>
<td>Swasta A</td>
<td>116</td>
<td>29.13</td>
<td>25.165</td>
<td>2.336</td>
<td>24.50</td>
<td>33.76</td>
<td>0</td>
</tr>
<tr>
<td>Swasta B</td>
<td>106</td>
<td>42.32</td>
<td>21.645</td>
<td>2.102</td>
<td>38.15</td>
<td>46.49</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>362</td>
<td>39.01</td>
<td>26.632</td>
<td>1.400</td>
<td>36.26</td>
<td>41.77</td>
<td>0</td>
</tr>
</tbody>
</table>

Ha, meaning that there is an effect of the type of school on improving the soft skills of students. Statistics Group data shows the following information:

From the table IV above shows that, State Vocational School with “A” Grade have the largest average of Private Vocational with “A” Grade and Private Vocational other than “A” Grade.

C. Hypothesis 3

H0 $\mu_1 = \mu_2$ : There is no influence of learning outcomes on improving students' soft skills

Ha $\mu_1 \neq \mu_2$ : There is an influence of learning outcomes on improving students' soft skills

The third hypothesis data processing using SPSS v.22 with ANOVA's One-Ways Analyze shows the following results:

TABLE V. ANOVA TEST SOFT_SKILL

<table>
<thead>
<tr>
<th>Sum of Squares</th>
<th>DF</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>47086,203</td>
<td>2</td>
<td>23543,101</td>
<td>40.44</td>
</tr>
<tr>
<td>Within Groups</td>
<td>208956,728</td>
<td>359</td>
<td>582,052</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>256042,931</td>
<td>361</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The SPSS output above shows that the significance is less than 0.05, meaning that H0 is rejected and accepts Ha, meaning that there is an effect of learning outcomes on improving the soft skills of students. Statistics Group data shows the following information:

From the table above shows that high learning outcomes have a greater influence on improving students' soft skills from moderate and low learning outcomes.

IV. DISCUSSION

This study aims to determine differences in students' soft skills before and after the application of cooperative learning models in accounting subjects. When the cooperative learning model was applied the researcher acted as an observer to observe to find out the soft skills of students. Before the experiment was carried out, the researcher made initial observations as a pretest to see students' soft skills before applying the cooperative learning model. Next, make a final observation as a post test when applying cooperative learning models to find out the soft skills of students at the time the model is applied by using observation sheets.

Before testing hypotheses is done, the researcher tests the data normality first. Data normality test is done to find out whether the data taken is normally distributed or not, so it can determine the next step using parametric or non-parametric statics tests. The normality test in this study was calculated using the Chi-Square test ($\chi^2$), after normality testing was performed. After normality testing was carried out, then analyzing the data using factorial design, and testing the hypothesis.

Judging from the results of the hypothesis test the effect of cooperative models on students' soft skills is obtained that the P value is 0.045 <0.5 so sehingga $H_0$ is rejected and $H_1$ is accepted. This means that there are differences in students' soft skills between classes that apply cooperative learning models with classes that do not apply cooperative learning models. Soft skills of students after using cooperative learning models are greater than before using conventional models.

From the results of hypothesis testing the influence of school types on students' soft skill ability can be obtained that...
the value of $P$ Value 0.000 $<$0.5 so that $H_0$ is rejected and $H_1$ is accepted. This means that there is an influence of school types on students' soft skills. The results of this study indicate that the improvement of students' soft skills State Vocational School with “A” Grade have the largest average of Private Vocational with “A” Grade and Private Vocational with “B” Grade. But still that cooperative learning model is an alternative that can be used in the learning process in class to improve students' soft skills by teachers who teach in State Vocational School with “A” Grade have the largest average of Private Vocational with “A” Grade and Private Vocational with “B” Grade.

From the results of hypothesis testing the effect of learning outcomes on the soft skills of students can be obtained that the value of $P$ Value 0.000 $<$0.5 so that $H_0$ is rejected and $H_1$ is accepted. This means that there is an influence of learning outcomes on students' soft skills. This means that high learning outcomes have a greater influence on improving students' soft skills from moderate and low learning outcomes.

The results of this study prove that the application of cooperative learning models can improve students' soft skills which means that cooperative learning models influence students' soft skills. This also proves that one model that can be used to improve students' soft skills is cooperative learning. The results showed that students' soft skills after using cooperative learning models were higher. In addition, it can be seen from the influence of school types on soft skills that indicates that State Vocational School with “A” Grade have the largest average of Private Vocational with “A” Grade and Private Vocational with “B” Grade. Soft skills of students from moderate and low learning outcomes.

The results of this study are in accordance with previous research conducted by Putnam, Markovchick, Johnson, & Johnson Cooperative learning increases teacher self-esteem, social acceptance, and ratings of students with disabilities [17]. Ballantine & Larres; Awang Shows an Improvement of generic social acceptance, and ratings of students with disabilities [17]. Johnson Cooperative learning increases teacher self-esteem, and Private Vocational with “B” Grade.

The results show that first, the cooperative learning model influence the improvement of student soft skill. Second, there is the influence of school type on the improvement of student soft skill. Third, there is the effect of learning outcomes on student soft skills improvement.

**V. CONCLUSION**

The results show that first, the cooperative learning model influence the improvement of student soft skill. Second, there is the influence of school type on the improvement of student soft skill. Third, there is the effect of learning outcomes on student soft skills improvement.

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**REFERENCES**


