

Building Student Soft Skill Ability through Cooperative Learning

Nugraha Nugraha, Imas Purnamasari
Faculty of Economic and Business Education
Universitas Pendidikan Indonesia
Bandung, Indonesia
nugraha@upi.edu, imaspurnamasari@upi.edu

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:

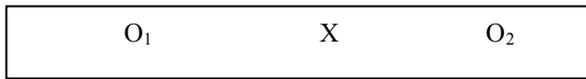


Fig. 1. Research design.

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 I. INDEPENDENT SAMPLES TES

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Activity	Equal variances assumed	6,198	,013	12,216	360	,000	28,810	2,358	24,172	33,448
	Equal variances not assumed			12,280	357,045	,000	28,810	2,346	24,196	33,424

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 II. COOPERATIVE LEARNING MODEL VS CONVENTIONAL MODEL

	Method	N	Mean	Std. Deviation	Std. Error Mean
Activities	Model Cooperative	187	52,94	24,054	1,759
	Model Conventional	175	24,13	20,537	1,552

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

TABLE III. ANOVA TEST SOFT SKILL

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	17019,376	2	8509,688	12,781	,000
Within Groups	239023,555	359	665,804		
Total	256042,931	361			

The SPSS output above shows that the significance is less than 0.05, meaning that H0 is rejected and accepts.

TABLE IV. HYPOTHESIS TEST

Soft_Skill	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
					Negeri	140		
Swasta A	116	29,13	25,165	2,336	24,50	33,76	0	100
Swasta B	106	42,32	21,645	2,102	38,15	46,49	0	86
Total	362	39,01	26,632	1,400	36,26	41,77	0	100

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

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	47086,203	2	23543,101	40,448	,000
Within Groups	208956,728	359	582,052		
Total	256042,931	361			

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:

TABLE VI. HYPOTHESIS TEST

Soft_Skill	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
					High	166		
Moderate	109	36,86	22,458	2,151	32,60	41,13	0	86
Low	87	21,24	21,950	2,353	16,56	25,92	0	100
Total	362	39,01	26,632	1,400	36,26	41,77	0	100

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 (X^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 skills among students when cooperative learning is incorporated in their lesson [12,13]. In cooperative learning, students are actively involved in the learning process so as to have a positive impact on the quality of interaction and quality communication, can motivate students to improve their learning achievement [18]. Cooperative learning models can develop students' social skills to train and develop soft skills. In the learning process, the teacher not only explains and tries to develop students' soft skills, but can help with peers, namely when there are exercises the problem can be by grouping students into small groups or at the time of exploration, encouraging students to observe, analyze, and do question and answer in groups. Students will learn more efficiently in the group learning process [14].

By dividing students into groups expected to be able to train collaboration between students, ask each other questions, respect each other's opinions, help each other in groups each group discuss with each other so that students can be more active so they can build soft skills of students. This is in line with the Soontiens and de la Harpe research at Curtin Business School in Western Australia, for example, "CBS Professional skills mini projects" were developed in a thirsty management

course to support students in developing their presentations and writing skills where students work. In groups are assessed based on 60% skills and 40% academic weight [19]. Through cooperative learning students can maximize their professional development [15]. Karrie A. Jones and Jennifer L. Jones show Students not only learn about cooperative learning and multicultural education, but also they take an active role as they participate in it and flourished under his guidance [20]. In Indonesia, in the education system, the quality of education continues to improve with various approaches so that students not only have hard skills, but have soft skills.

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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