

## The Impact of Cooperative and Coaching on Skills Competency in Vocational Education

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### ABSTRACT

*This study aims to determine the impact of cooperative coaching on skills competency of vocational education cadets. This type of research uses experimental research with statistical tests, while the research design that will be used is the pretest-posttest control group design, the research subjects are 90 cadets. Data collection tools using interviews, questionnaires, documentation and observation. The results showed that the development of a cooperative coaching model for cadets based on the results of this study showed a significant effect on the skills competence of cadets. Guidance during the learning process is very helpful in forming attitudes and social skills and motivation of cadets. Coaching will help cadets who have difficulty learning, with coaching will be facilitated by cadets who have learning difficulties.*

**KEYWORDS;**-cooperative, coaching, vocational, skill, competence

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### I. INTRODUCTION

In the era of globalization that is increasingly competitive in the world of work, prospective workers are required not only to have a certificate, but also have expertise or soft skills in their field. For this reason, educational institutions are now also required to produce students who have competencies that is needed in the world of work, so that when they graduate, they are ready to face the world of work and can work according to their respective expertise. Applying learning methods that are suitable for students is a challenge that is also being faced by teachers. Teaching is a process of providing meaning, direction, guidance, examples that are felt to be important at the learning age. However, during the process, there are changes and differences depending on the level of ability of students or individual development.

For educators with various roles that must be performed, the goal is that they can know and understand the development and characteristics of students. This is very important because "transfer of learning" in teaching and learning process can be conveyed and accepted by students well. In addition, by understanding the development of these students, educators can use the right techniques to learn the abilities, interests, and levels of learning preparation of students. In addition, it is also able to consider various teaching procedures, as well as to be able to analyze and examine learning methods, learning strengths and weaknesses of its students.

Preparing qualified human resources who will work at the airport, graduates of Surabaya Aviation Polytechnic besides having a diploma from the results of their study, are also required to have a competency certificate that matches their expertise. This is due to the competition for graduates from similar Polytechnics. Thus graduates from Surabaya Aviation Polytechnic have added value compared to other graduates so that they have high absorption capacity, especially for Surabaya Aviation Polytechnic. Therefore, during education, cadets are required to take part in professional competency training organized by Professional Certification Institute which is within Surabaya Aviation Polytechnic and under the guidance of the National Professional Certification Agency. The objectives of certification are (1) ensuring competence in maintaining automation of the sensor engineering industry with the demands of the aviation industry, professional demands and market / consumer demands, (2) as the end of the learning process, and (3) as a reference in carrying out the assessment of Professional Certification Bodies and Assessors.

In order to meet the needs of human resources, especially in the air transportation sub-sector, graduates from the Surabaya Aviation Polytechnic should be Diploma IV, so that they are able to compete at level 6 (six) standards of Indonesian National Qualification Framework. There is a change in the development of science and technology and in order to respond to global competition where these graduates will be faced with competitive and competitive conditions, whether in college or in the world of work. Conduct studies in tertiary institutions to be able to touch aspects of the dynamics of market development and managerial performativity (aspect of market and managerial performativity) which has been widely adopted by many nations. For that we need a strategy in accordance with the goals to be achieved. One of them is by being given guidance or coaching.

Stefaniak (2017) describes the coaching process into three phases, (1) building commitment and personal transformation; (2) advancing the executive; and (3) facilitate personal transformation. During phase 1, trainers worked with their trainees to develop clear objectives and ensure that they have a mutual understanding before moving forward with the training relationship. They both exchange information and participate in joint problem solving in an effort to foster resilience in the trainees. The aim of phase 2 is to encourage trainees to collect the necessary data to fully identify the problem at hand, it is important for the trainer to share previous experiences with the trainees as a way of empathizing with the trainer's current struggles. Sharing personal experiences and strategies used helps in the development of each coach relationship. Phase 3 consists of developing an action plan that includes checkpoints that allow the trainer to monitor the progress of trainees over an extended period of time. During this phase, it is important that the trainer provides feedback on the participants' performance in terms of a systems view.

Cooperative coaching is learning by working together in small groups accompanied by coaching from teachers, lecturers or instructors. Coaching in learning process is aimed at coaching in terms of attitudes or soft skills that support the world of work. The aim of this model is that cadets will have positive interdependence, individual accountability, promotive interactions, appropriate use of social skills, and group processing (Johnson & Johnson, 2008). Positive interdependence exists for complementary roles and group contingency. People who are in a cooperative situation, are oriented towards the desired result, that is, a goal or a reward; achieve results together to achieve goals, interdependence includes resources, roles, and task interdependence. Positive interdependence is proposed to create a "power of responsibility" that increases group members' feelings of responsibility and accountability for: (a) completing a piece of work and; (b) facilitate the work of other group members.

Cooperative coaching model in learning at Professional Certification Institutions. The aim of the training is to close gaps, especially those related to attitudes, knowledge and skills. Three types of training objectives, namely (a) attitude, creating interest and awareness of the importance of something; (b) knowledge, providing information and cognitive details to the trainees; (c) skills, develop behavioral changes in how work and various task requirements are performed (Mathis & Jackson, 2011). Training using cooperative coaching model aims to train students in developing general training objectives, namely attitudes, knowledge, and skills through cooperative learning. Training at Professional Certification Institutions is a transitional training from school to work, which helps individuals move jobs while still at school or completing formal education (Mathis & Jackson, 2011). Coaching during learning process is carried out continuously, through a cooperative learning process. One type of coaching that is currently being developed is team coaching. This approach focuses on coaching groups of individuals on how to work more effectively as part of a team workforce. Group coaching on leadership can help create high-performing teams.

The implementation of cooperative coaching model in the implementation of learning at Professional Certification Institutions uses the existing cooperative learning approach, in which the lecturers provide guidance to students in developing attitudes, knowledge and skills. Coaching in learning is carried out during the training. Coaching is carried out primarily in the attitude of students, which includes the ability to work together in teams, mutual respect in the team, and discipline. The application of cooperative coaching training model using cooperative learning in which the learning process is carried out with a coaching pattern for students. Coaching carried out in learning is tailored to the needs of the recipient of labor and the origin of the students (Surabaya Aviation Polytechnic).

## **II. METHOD**

This research is a quasi-experimental research using two groups, namely the experimental class and the control class. The subjects of this study were 90 cadets divided into 45 experimental classes and 45 control classes. The experimental class was given treatment with cooperative coaching method, while control class used conventional method. The data analysis technique was used to compare competency skills in sensor engineering industrial automation in the two groups using statistics.

## **III. RESULT VIEW**

Based on table 2, a significant t-test for Equality of Means is obtained,  $0.000 < 0.05$ , which can be concluded that there is a significant impact of the training model on the skills competence of cadets. Based on the application of cooperative coaching model, it shows a positive impact on competency skills in sensor engineering industrial automation. The group statistics table shows that cooperative coaching model has a better average learning outcome (81.56) than conventional model (74.11) (table 1). The coaching cooperative training model has been able to increase the participation of students in the learning process, be active in learning, be disciplined in participating in training because of the continuous mentoring process by lecturers in the learning process.

Table 1. Group Statistics

	Skill Competence	
	Model	
	Coaching cooperative	Konvensional
N	54	54
Mean	81.56	74.11
Std. Deviation	6.759	5.459
Std. Error Mean	.920	.743

Table 2. Independent Samples Test

		Skill competence	
		Equal variances assumed	Equal variances not assumed
Levene's Test for Equality of Variances	F	5.270	
	Sig.	.024	
t-test for Equality of Means	t	6.297	6.297
	df	106	101.504
	Sig. (2-tailed)	.000	.000
	Mean Difference	7.444	7.444
	Std. Error Difference	1.182	1.182
	95% Confidence Interval of the Difference	Lower	5.100
Upper		9.788	9.790

Robinson & Gahagan (2010) explain that coaching can improve skills competency. And convey three stages to improve skills competence through coaching, namely self-assessment, reflexes and goals. Gordon, Nolan, & Forlenza (1995) reported that coaching was able to accelerate the improvement of students' skill competencies and by using cooperative learning there was positive participation from students. People who are guided (coaching) will have self-awareness and respect for others, and be able to build beneficial and productive relationships, and be able to become good leaders (Handin & Steinwedel, 2006). Ellinger, Ellinger, & Keller (2003) show that coaching has been able to improve employee performance. So that with coaching that is inherent in learning, students will be able to have good performance when in the world of work. Baron & Morin (2009) suggests that the trainer-trainee relationship plays a mediating role between the coaching received and the development of self-efficacy coachees, facilitates learning, and learning outcomes, and increases motivation. Hart (2005) explains that coaching will be able to strengthen bonds between individuals, which develops and improves performance.

Learning by integrating cooperatively obtains better and standardized learning outcomes (Brush, 1997). Cooperative learning has been able to improve students' attitudes and controlled cooperative learning can improve learning outcomes significantly compared to uncontrolled (Singhanayok & Hooper, 1998). Cooperative learning in higher education can improve learning outcomes and attitudes (Cook, 1991). Shoval (2011) explains the results of his research that cooperative learning can improve mathematics learning outcomes.

Based on the description above, it can be concluded that cooperative coaching training model is proven to be able to improve student learning outcomes. Guidance during learning process is very helpful in shaping attitudes and social skills and motivation of students. Coaching will help students who have difficulty learning, with coaching will be facilitated by students who have learning difficulties

#### IV. CONCLUSION

Based on observations and interviews conducted by researchers, it can be concluded that the learning model with cooperative coaching has a positive impact on skills competence of Surabaya Aviation Polytechnic cadets. During the training process, cooperative coaching is able to improve the skills competence of cadets. Cadets can develop soft skills and can improve higher-order thinking skills, increase their motivation and social skills in preparing for the world of work. So, it is highly recommended to use cooperative coaching model in the skills competencies of cadets.

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