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ACTIVE LEARNING MODELS INCREASE CADET ACADEMIC VALUE

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ABSTRACT

Learning activities should engage students to be active, but each educator has a different teaching style. However, many students are still not paying attention to the learning process because they are bored or less interested in the lessons learned. This study's objectives are to (1) know the results of cadet study in the course of ground handling State Polytechnic of Banyuwangi; (2) know the difference in cadet learning results in ground handling courses at State Polytechnic of Banyuwangi using active learning methods. This type of research is Class Action Research (PTK). This research is included in the research design of one group pretest-posttest. This research was conducted in the State Polytechnic of Banyuwangi. The data analysis technique used is a different test. The analysis results can be concluded that the application of active learning can improve cadet learning results in ground handling courses in State Polytechnic of Banyuwangi. This finding is evidenced by a significant difference in the pre-test and post-test learning outcomes. Students' learning outcomes are significantly higher after active learning applications than students' learning outcomes before applying active learning in ground handling courses.

INTRODUCTION

Learning activities are teaching activities that ignore learning activities, i.e., simply preparing to teach and carrying out teaching procedures in face-to-face learning. However, teaching involves an open-minded plan to help students meet and exceed educational objectives. Teaching styles may differ from teacher to teacher, class to class, and school [1]. Teachers should offer a

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variety of activities for students to choose from and not hinder students' creativity. Activities must be identified, and teachers should be prepared to advise students when they encounter problems while participating in activities [2].

The teaching and learning process or learning is implementing the curriculum in educational institutions to achieve predetermined goals. Many factors influence learning success, both internal factors from within the student and external factors that come from outside the student. One indicator of whether or not a learning process is achieved is by measuring how far students have achieved. Learning outcomes are defined as statements about what students know, understand, and can do after completing the learning process, defined in terms of knowledge, skills, and competencies [3]. Learning outcomes are also defined as a set of knowledge, skills, and competencies acquired by a person and demonstrated after completing the learning process, whether formal, non-formal, or informal [3].

When students learn actively, they dominate learning activities. With this activity, students actively use the brain to find basic ideas, solve problems, or apply what they have just learned to one problem that exists in real life. Some students are not paying attention to the learning process because they are bored or less interested in the lessons learned. Then, interesting activities are needed to increase student interest in the learning process and produce a good performance. Such to Sriklaub & Wongwanich (2014), good activities attract students and produce a good performance and positive attitudes among students, all of which are very beneficial for students' future. In this case, students need proper learning to increase student interest and participation by using active learning. Active learning methods are an important component of the learning process; students need to be actively engaged during the lectures for effective learning to take place [4].

Paulson and Faust in Fayombo (2012) define active learning as everything students do in the classroom in addition to just passively listening to the instructor's talk. Active learning includes everything from listening practices that help students absorb what they hear, short writing exercises where students react to lecture materials, and complex group exercises where students apply course materials to "real-life" situations and new problems. Through this active learning approach, State Polytechnic of Banyuwangi students is invited to mentally and physically participate in all learning processes. In this way, students will usually feel a more pleasant atmosphere to maximize the learning results.

MATERIALS & METHOD

This type of research is Class Action Research. Classroom Action Research is part of a broad movement taking place in education in general for some time. This type of research is related to the idea of reflective practices and teachers as researchers. Action research involves taking a self-

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reflection, critical, and systematic approach to exploring the context of self-teaching. In action research, a teacher becomes an investigator or explorer of his teaching context and is one of the participants in it [5].

This study's research design is "One Groups Pretest-Posttest Design," where this type of research does not use control groups. Shadish et al. (2002) state that in One-Group Pretest-Posttest Design, Pretest is performed against the research subject group, after which it is given treatment, then done post-test with the same measurement. Groups subjected to Pretest and Posttest are in the same group (within-subject design). The form of this design is as follow figur1

01	**X**	**02**

Figure 1. One Group Pretest Posttest Design

Information:
01 : pre test
X : treatment
02 : post test

The subjects selected for research in this study are the cadets of the State Polytechnic of Banyuwangi Tourism Business Management DIV program, namely 31 cadets. The object chosen in this study is the use of active learning methods to improve cadet learning outcomes in ground handling courses at State Polytechnic of Banyuwangi.

The model put forward by Kemmis and McTaggart that the class action research model is a spiral form. The stages of action research in a cycle cover four stages: plan, action, observe, and reflect. This cycle continues and will be stopped if the student's success has reached the maximum score (success criteria).

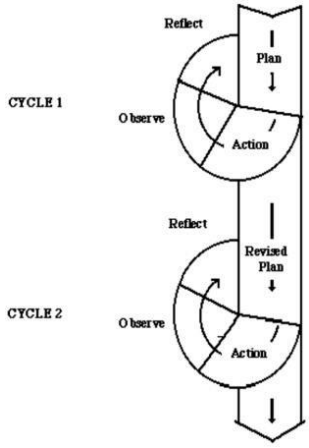

Figure 2. Kemmis and McTaggart Model Action Research Cycle
(Source: Burns, 2010)

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Based on the image, some cycles have four important components: planning, action, observation, and reflection. These components will continue to rotate sequentially from cycle I to cycle II and rotate towards the next cycle until the desired goal can be achieved.

In data collection, each cycle starts from the beginning to the end of the learning. In this data collection, researchers used several techniques: Test methods, observations, and documentation.

a. Test Method

Tests are a series of questions or exercises used to measure cognitive levels, i.e., knowledge, understanding, and application, owned by individuals or groups. Tests are a series of questions or exercises used to measure cognitive levels, i.e., knowledge, understanding, and application, owned by individuals or groups.

b. Observation Methods

This method of observation can be interpreted as systematic observation and recording of the phenomenon investigated. In a broad sense, observation is limited to observations made with the eyes of the head and directly.

c. Documentation Methods

Documentation is a way of collecting data on things in the form of school vision and mission, history, the school's organizational structure, number of students, number of teachers, and employees. The documentation in this study is then intended to obtain data directly from the research site, including the organizational structure, the number of teachers and employees, the number of students, and everything that supports the research.

In this study, the analysis technique measures using a paired t-test with the spss data processing program's help. The t-test used is a t-test of two pairs of t-tests, a parametric statistic to test the comparative hypothesis of the average of two samples if the data is in intervals or ratios. The samples in this study were two correlated samples. This paired t-test was used to test the effect of active learning models on Surabaya Aviation Polytechnic cadets in Ground Handling courses.

RESULTS AND DISCUSIONS

Result

This Ground Handling course is one of the courses that must be attended by all fourth-semester students (four). This course discusses the meaning of Ground Handling, parts of the terminal area, passenger baggage arrangements, Cargo Handling, Apron area, Calculating the weight and balance of aircraft, Customs Procedure

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Standards immigration, and quarantine, Ground Handling Companies in Indonesia, and International Civil Aviation Organization.

The final learning achievement in this course is that students can understand air transport management and travel efforts. It is expected that students will understand the ins and outs of the aviation world, especially about services and parts that come into direct contact with operations at the airport, ranging from standard service procedures to the equipment and equipment needed in the aviation world. Here's the final capability you want to achieve that's planned:

1) Students understand the rules of lectures that are mutually agreed between lecturers and students with the subject of tuition contracts
2) Students can understand explaining the history, understanding, scope, and purpose of Ground Handling with the subject of the understanding of ground handling
3) Students can understand the handling procedures in the Terminal Area
4) Students can understand the definition, classification, and concept of baggage arrangement
5) Students can understand the definitions and procedures in handling cargo
6) Students can understand various types of handling in the Apron Area
7) Students can make calculations of the weight and balance of aircraft loads
8) Students can understand the Customs, Immigration and Quarantine Process at the Airport
9) Students can make a comparative analysis of the advantages and disadvantages of several Ground Handling companies in Indonesia
10) Students can know and understand the main tasks and functions of international civil aviation organizations

The object of this research is the cadet of the Program D IV Tourism Business Management Polytechnic Banyuwangi State. This research aims to find out the differences in studying Ground Handling courses before and after applying active learning models. The ability to measure students' learning results is done twice, namely pre-test and post-test. Here's descriptive research data for student learning outcomes:

Table 1. Pre-Test and Post-Test Learning Results

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Learning Results (Pre Test)	31	59,00	84,00	76,3548	7,30547
Learning Results (Post Test)	31	71,00	96,00	88,2581	4,90556

The descriptive calculation results for pre-test data obtained by the average student's study results were 76.35, with a data dissemination score of 7.30. The maximum student learning score is 84, and the minimum student learning score is 59. Meanwhile, post-test data obtained by the average student learning outcome is 88.25, with a

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data dissemination score of 4.90. The maximum student learning score is 96, and the minimum student learning score is 71.

T pre-test and post-test tests aim to know whether there is an improvement in student learning outcomes after applying the active learning model. The conclusions of the study were expressed significantly when t > t table at a rate of the significance of 5% or a p-value <0.05. The summary of the pre-test t-test and post-test experiment class is shown in the following table: Table 2. Summary of Pre-Test and Post-Test Tests

Group	Average Learning Outcomes	t count	Sig.
Pre-Test	76.35	-15.468	0.000
Post-Test	88.25		

Based on the table above, the average pre-test study score was 76.35, and the average post-test study score was 88.25, an increase of 11.9. Statistical test results support this finding. It is known that the t count value is - 15,468 and has a p-value of < 0.05, which means it can be concluded there are significant differences in pre-test and post-test learning results after applying the active learning model. Pre-test and post-test learning results have different average scores or a significant improvement in student learning outcomes by applying an active learning model.

Discussion

The results showed an influence on the use of active learning media on students' learning outcomes. This result was evidenced by a significant difference in pre-test and post-test learning outcomes. Pre-test and post-test learning results have different average scores. After utilizing active learning media, the average student's learning results after utilizing active learning media are greater than the students' learning results. This result means that there has been a significant improvement in student learning outcomes after utilizing active learning media. Bonwell and Eison in Fayombo (2012) describe active learning strategies as strategies that involve students in doing things and (asking students) to think about the things they do. In an effective learning environment that incorporates active learning strategies, greater emphasis is placed on students' exploration of their meanings, attitudes, and values. Active learning is an active and dynamic teaching-learning process. Active learning involves students who are intellectually and emotionally engaged in learning activities. The student engagement continuum (both intellectually and emotionally) has detachment on the one hand and engagement on the other[7].

Active learning is a learning process to empower students to learn using active means/strategies. Active learning found that strategy is important in achieving learning outcomes. A significant positive association between learning strategies shows that they are interconnected[4]. It is important to understand that active learning

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media students' observation activities will be more involved in active learning, often organizing their work, research information, discussion and explaining, observing demos or phenomena, solving problems, and formulating questions.

CONCLUSIONS AND RECOMMENDATIONS

The learning results are abilities obtained after students through learning activities that include the cognitive, affective, and psychomotor realms of the learning process carried out within a certain time. Thus it can be understood that changes in behavior in a person result from learning obtained from the learning process. The study results will be known by evaluating the learning process of teaching so that the results of this evaluation will be a measure of success or not learning. The results of pre-test and post-test students after the implementation of active learning have different average scores. Classes with learning methods utilizing active learning media can attract students' attention to make learning meaningful. Students play a more active role in developing ways of self- learning. Students participate in the planning, implementation, and assessment of the learning process.

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