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The effectiveness of experiential learning modules in increasing the problem-solving ability of new employees

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Abstract: This research aimed to find out the effectiveness of experiential learning modules in increasing the problem-solving ability of new fresh graduate employees in SDIT Assisi and Sari Asih Hospital reason that both SDIT Assisi and Sari Asih Hospital have similar problems that many new employees, especially new fresh graduate cannot solve the problem. This study employed a quasi-experimental research design. Pre-post test control group design was utilized in this study's experiment, in which two classes—treatment and control class—were used. Data collection techniques included pre and post-test, observation, and documentation. The results of research on training using the EL module show that pre-test and post-test results obtained a sig. value of 0.056 > 0.05 confidence level, indicating no significant difference in the problem-solving ability of fresh graduates using the EL module afterward. Meanwhile, the pre and post-test results in the control and treatment class obtained results with a Sig. value of 0.094 > 0.05 confidence level. Therefore, it can be concluded that there is no significant difference in the problem-solving ability of fresh graduate employees between those training used EL modules and those who didn't use EL modules.

Keywords: *module effectiveness, experiential learning, problem-solving ability*

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INTRODUCTION

Globalization and revolution in information technology and science have required anticipation and evaluation of the competencies needed by the world of work. Some of the important shifts that have occurred include an increase in educated unemployment, both open and hidden, as a result of the massification of higher education, changes in global socio-economic and political structures that affect the world job market, and the rapid development of science and technology, causing various changes. Fundamental in terms of qualifications, competencies, and requirements for entering the world of work (Sihite, 2018).

These gaps and conditions also occur in Indonesia. The results of research by McKinsey, UNESCO, and ILO found that there is a gap between the education system and the world of work in Indonesia, namely that the graduates produced by universities need to match what job users need. Referring to the datanesia.id site, there are 8.4 million people who have not/do not work as an element in the open unemployment rate (TPT) or 5.8% of the total Indonesian workforce in February 2022. The very productive millennial generation

dominates the population that has yet to work with an age range of 15-19 years and 20-24 years (Handayani, 2015).

The data site also refers to research published by the National Research and Innovation Agency (BRIN) in 2021, which found a horizontal mismatch between educational background and job qualifications, which reached 68.4 %. Most individuals work outside their field of competence, where their education differs from their field of work.

This competency is not only in hard skills (technical skills) but also in the spotlight regarding soft skills, including communication, problem-solving, and interpersonal skills. Problem-solving skills in the workplace are important, whether new or existing employees. Every business and job role has its problems; novice employees to top leaders will face these challenges hence, why an organization must hire people with a knack for problem-solving skills, especially for roles that have to deal with complex business challenges, tight deadlines, and changing variables (Management30.com, 2022).

Based on 2018 Bappenas data, it is known that most workers in the agricultural and industrial sectors have low skills. Of the total number of workers of 121.02 million, around 99.41% of workers in the agricultural sector are low-skilled, 0.47% have medium skills, and only 0.13% have high skills. This condition is similar in the manufacturing sector, where as many as 90.45% have low skills, 6.52% have medium skills, and 3.03% have high skills. The service and other sectors tend to require medium and high skills, with a portrait of 14.36% with high skills, 52.74% with medium skills, and 32.90% with low skills. In the last four years, the proportion of formal workers ranged from 42% to around 53.09 million in 2018. Formal workers in the industrial sector tend to have low skills. One of the reasons for the low quality of workers is the limited availability of training for the workforce (ugm.ac.id., 2022).

One of the causes of the skills gap was also conveyed by the Acting Director General of Higher Education, Research, and Technology, Nizam, at the International Seminar on the Basic Core of Educational Achievement (IDCP) in Jakarta on November 23, 2022, namely that so far higher education has placed too much emphasis on the cognitive domain but paying less attention to strengthening the affective domain. "IDCP was developed based on the results of quite long discussions and reflections and was based on concerns related to this issue which was deemed not to develop students' character, soft skills and attitudes" (dikti.kemdikbud.go.id., 2022).

Understanding the importance of problem-solving skills in the workplace is a skill that must be possessed. In general, problem-solving refers to a person's ability to manage and find solutions to complex and unpredictable situations successfully. Employees with great problem-solving skills have a combination of analytical and creative thinking. They are comfortable making decisions and confident enough to face challenges at work. Employees with good problem-solving skills have a combination of analytical, creative, and critical thinking skills and a high level of attention to detail. As a result, they will quickly identify problems when they arise and identify the most effective solutions. They will also identify factors and forces causing problems and trigger changes to mitigate future challenges. A person can be said to have problem-solving skills if he can solve problems correctly and

systematically, such as having the ability to identify the problems faced, being able to find solutions based on problem identification, identifying obstacles to solutions that have been created, choosing the right solution, trying to implement the chosen solution in problem-solving, and evaluating solutions (Forgan, 2002) so that problem-solving skills need to be trained systematically and structured so that someone can solve problems.

One of the main needs is the importance of problem-solving skills for every individual, especially new employees (fresh graduates), in the workplace, as quoted from news sources in online media (https://money.kompas.com/read/2023/01/ 05/094000726/5-soft-skills-that-can-increase-fresh-graduate-advantages-in-the-world-of-work?page=all).

Increasing problem-solving abilities can be achieved through several competency development methods, whether through training, on the job, job rotation, job enhancement, coaching, counseling, etc. The development method that is often used is through training. Training is one of the fields in out-of-school education, where out-of-school education is a form of development and implementation of education on a broad basis. Education is not only organized activities at school but also education outside, because in essence education is life and school is only a small part that is limited by age level and discipline (Saleh & Handayani, 2020).

Job Training, according to Law Number 13 of 2003 concerning Employment, includes a definition, namely all activities to provide, obtain, improve, and develop work competency, productivity, discipline, attitude, and work ethic at a certain level of skills and expertise, by level and qualifications position or job. One of the functions of training is to improve discipline, attitude, and work ethic (soft skills) as well as certain skills (hard skills). The training is based on experiential learning, one of which aims to develop soft skills (behavior) aspects that are the focus of the program targets. This type of training has become a favorite training program in every institution in the business world, not only in Indonesia but internationally. Team building, effective communication, and problem-solving are important topics in organizations that are needed to strengthen human resource systems and stimulate further productivity, profitability, and service quality (Fapohunda, 2013). Experts in the field of problem-solving training prefer to use active learning methods, namely experiential learning techniques. This technique is suitable for application in training that aims to improve individual behavior and affection (Kreitner & Kinicki, 2008). The experiential learning training method states that there are six approaches: role play, games and simulations, observation, mental imagery, writing tasks, and action learning (Silberman, 2006).

The further development of experiential learning, especially in Indonesia, since the entry and introduction of one of the international institutions based in England, namely Outward Bound International (OBI) in 1990, which focuses on outdoor education (outdoor training), the experiential learning method is increasingly becoming increasingly popular. Widespread, not only used by non-formal educational institutions such as training institutions, consultants, and course institutions, it has even begun to be used in formal educational institutions to implement teaching, such as in schools and campuses. An extraordinary growth phenomenon.

An experiential learning-based training program that aims to improve group problem-solving abilities, where the main guide is called a Facilitator has an important role in the success or failure of the experiential learning-based training program. Just as someone known as a teacher plays the role of an educator in formal education, a facilitator should also play the role of an educator in non-formal education. A facilitator, before playing his role as a guide for a learning activity, should ideally be provided with scouting training as a means of honing his competence, plus learning modules/guidebooks to assist him in organizing training or learning programs, especially for novice facilitators who have just been deployed to the field.

A learning module is a program unit in teaching and learning activities in class; the smallest program in learning is studied by students independently or taught by students to themselves (self-instructional) (Winkel, 2009). A module is a teaching material with a unified whole, consisting of a series of learning activities, which can concretely provide effective learning results in achieving learning objectives formulated clearly and specifically in the module (Mbulu, 2001).

As researchers have been involved in experiential learning-based training since 1997, the phenomenon identified in training modules is the need for more standardization of existing modules in several institutions providing experiential learning-based training activities. There are still many modules that are used as basic guides for participants and do not include comprehensive components, which are the implementation of the fourth Kolb cycle, namely active experimentation, where the learning points obtained by each participant will be guided within the framework of implementation plans or implementation in daily activities, especially in the workplace or organization.

In several government institutions such as BPPK (2012) and, the State Administration Institute of the Republic of Indonesia (September 2019), the Central Statistics Agency (2020), there are training activity modules, for example, the Effective Team Building Training Module. However, the module is more of a material guide with theoretical textbook content regarding building effective teams or training, not based on Experiential learning. The next observation is that the level of effectiveness of using experiential learning-based training modules, which focuses on developing aspects of the problem-solving abilities of training participants, has yet to be discovered.

The determination of the research location at SDIT Assisi and at Sari Asih Hospital was that in the initial assessment from the results of interviews with the leader of the foundation and the hospital, it was found that there were weaknesses in the problem-solving abilities of new employees, especially when they were faced with something new.

With the modules that researchers have used so far, researchers want to prove whether these modules are very effective tools for achieving the objectives of experiential learning-based training. Thus, this research aims to know the level of problem-solving abilities of new fresh graduate employees before taking part in experiential learning-based training using modules, knowing the level of problem-solving abilities of new fresh graduate employees after taking part in experiential learning-based training using modules, knowing whether there are differences in ability levels solving new fresh graduate employees

between before and after taking part in experiential learning based training using modules and knowing the differences in the level of problem-solving abilities of new fresh graduate employees between the control class and the treatment class.

METHOD

The research approach used in this research is quantitative research with an experimental type of research. This research used a quasi-experimental design with a two-group (between-subject design) design. This research used an experimental design "Pre-test Post-test Control Group Design" (Azwar, 1999), because we wanted to know the effect of a treatment on the dependent variable. The data analysis method for this research used the Paired Sample T-Test change analysis technique and the Independent Samplet-Test difference analysis technique.

The research took the form of testing the effectiveness of using experiential learning-based learning modules in training activities carried out on August 5, 2023, at SDIT ASSISI Tangerang City for the Treatment Class and August 8, 2023, for the Control Class at the Sari Asih Ciledug Hospital, Tangerang City. The research was carried out by providing treatment to several training participants who used experiential learning-based modules and to several participants without training modules. Samples were taken from each class, as many as 15 people, to test the effectiveness of the module in building participants' problem-solving abilities in implementing experiential learning-based training.

Samples were taken at two institutions with new employees in the category of fresh graduates for both the treatment class and the control class. Selection was carried out randomly according to the time availability of the subjects to take part in this research activity. The dependent variable of this research was problem-solving ability, before and after experiential learning-based training as the manipulated variable. Problem-solving ability is a person's capacity to resolve conditions that give rise to conflict so that these conditions do not pose a threat to the individual. The independent variable of this research was experiential learning-based problem-solving Training, which was a training method using simulations/games as a learning medium that refers to the Kolb cycle, which consists of four stages: feeling, watching, thinking, and doing.

In this research, the measuring tool used by researchers is the problem-solving inventory. The instruments used in this research are a scale as the main instrument and observation as a supporting instrument. This scale was intended to reveal the problem-solving abilities possessed by fresh graduate employees. The guidelines for assessing problem-solving abilities are used as a reference to describe the problem-solving abilities of new employees (fresh graduates) in completing problem-solving ability tests using experiential learning simulations. Problem-solving ability was shown by the total score obtained by the subject on the problem-solving ability scale. The problem-solving ability scale was prepared based on aspects of problem-solving ability, which are presented in the form of indicators regarding problem-solving ability. Overall, this instrument had a reliability of 0.948. The research instrument consists of observation of problem-solving

abilities and questionnaires on training participants' responses to learning using the experiential learning method (Pre and post-test).

To process research data, researchers used descriptive statistical analysis techniques and parametric statistics. In parametric statistics, hypothesis testing is used, namely the t-test (paired sample t-test and independent sample t-test). The initial examination of the problem-solving Inventory questionnaire instrument was carried out by an expert (Expert Judgment); in this case, the instrument validity test using SPSS 29.0 Pearson with rtable = 0.514, for N = 15 and α = 5%. Of the 32 statements that were made, 28 statements showed valid results with a value of $r_{count} > r_{table}$ and 4 statements (no. 20,27,28,29) were declared invalid with a value of $r_{count} < r_{tab}$. So, the researcher decided to eliminate the 4 statements that had been made in the Problem-Solving Inventory Questionnaire.

FINDINGS AND DISCUSSION

This research was conducted at the As-Sisi Educational Institute, Tangerang City, which is located at Jalan Raya H.O.S Tjokroaminoto Kreo Selatan, Larangan, Tangerang City, Banten and the Sari Asih Ciledug Hospital which is also located at Jalan Raya H.O.S Tjokroaminoto. One of the reasons for using this location is that this educational institution was only founded 5 years ago, so most of the employees and teaching staff are relatively young, fresh graduates with an age range of between 25 and 30 years. From the data obtained, there were 8 subjects aged between 20-25 years and 7 people aged 26-30 years. The gender of the subjects consisted of 6 men and 9 women with a high school educational background of 1 person and a bachelor's degree of 14 people.

As a result of the preliminary assessment with the chairman of the ASSISI Foundation, there were several things that strengthened the researcher's choice of SDIT ASSISI as the research location. The school has many problems related to school infrastructure, so quite a few parents of students complain to the teacher, which limits teachers in providing solutions to these problems. All teaching staff and administrative employees at SDIT ASSISI are young employees and fresh graduates, so they still often face problems in terms of their ability to adapt to the school environment and within the school internally. Most of the teaching employees, in particular, are not yet able to think and act creatively in dealing with student misbehavior, so handling is mostly left to the Head of the Foundation. Some teaching staff are still not yet ready to face the large number of tasks being carried out, considering that the number of students is increasing over time, but the school staff is still limited, and the school is not yet able to add staff.

Sari Asih Hospital is also a relatively young hospital because it is still under 10 years old in Ciledug, Tangerang City. One of the backgrounds for choosing the location for the control class in this research is the number of employees in 2023; Sari Asih Ciledug Hospital will have 45 new employees, most of whom are fresh graduates and have less than two years of work experience. From the data obtained and taking part in training activities as a form of treatment in this study, there were 11 people aged between 20-25 and 4 people aged 26-30 years. A total of 6 people were male, and 9 people were female with a high school education level of 2 people, 4 people D3, and 9 people with a bachelor's degree.

Another background that strengthens the implementation of research at Sari Asih Ciledug Hospital was obtained from the initial assessment carried out by the Director of Sari Asih Ciledug Hospital and Head of Human Resources, stated that most of the employees here, especially new employees, rarely receive training programs, especially regarding problem-solving, even though they encounter a lot of problems, both simple and complex, even many young doctors here still experience obstacles in terms of adaptation, coordination, implementation system and so on, which has an impact on the service system, and the innovation and creativity capabilities of employees in terms of service improvement, especially queuing problems and service speed, are still relatively low, so their abilities must be improved.

SDIT ASSISI was designated as the location for the treatment class in this research, which is a privately owned elementary school-level educational institution where data collection activities were carried out, while Sari Asih Hospital was the control class. The condition of each room at As-Sisi School is quite good, where each room has various facilities including computers, air conditioning, fans, classroom chairs and teachers and document cupboards. The Assisi Educational Institution building has two floors and a parking area, which is usually used for outdoor simulations. Apart from that, there is also a futsal field around the school area, which is usually used to hold events with a number of participants above 100 people. All classrooms are often used as places for training, meetings, discussions, and so on.

Likewise, in hospitals, Sari Asih Ciledug, with a building consisting of six floors with adequate facilities, is a Middle-Class Hospital Group in the cities of Tangerang, Serang, and Ciputat-South Tangerang. Treatment activities for the control class at Sari Asih Hospital are carried out in the main hall on the 6^{th} floor, which is a fairly representative location and is usually used for training activities and other colossal events with a capacity of more than 100 people, with two large screens for projectors and sound. A very supportive system, as well as an empty area for conducting research with treatment through simulations of experiential learning-based problem-solving training activities carried out. The results of initial and pre-experimental observations carried out by the researcher show that there is a need to increase problem-solving abilities, which were observed by the researcher based on information from the leadership of the two institutions. The results of this pre-experiment became the reference for researchers conducting research on new employees at SDIT ASSISI and Sari Asih Hospital Ciledug.

Researchers conducted a pre-test before carrying out the research. This aims to measure the level of problem-solving abilities of new employees and existing staff. The problem-solving abilities of new fresh graduate employees are measured using the Problem Solving Inventory problem-solving ability scale, which consists of 28 statements whose validity and reliability have been tested.

The experiment was carried out in two stages. The first stage was for the treatment class, which was carried out on new employees of SDIT Assisi in Tangerang City, while the control class was carried out on August 8 at Sari Asih Ciledug Hospital, Tangerang City. Based on observations made by researchers during the activity, overall, the simulation

ran smoothly. Since the start of the simulation, all subjects were actively involved, and interaction occurred between the subjects as training participants and the researcher as facilitator. The aspect revealed in the initial process of this experiment is that each subject can put forward examples of problems and search for and collect facts that occur through the brainstorming process. During the process until completion, the subject can concentrate on the material directed by the researcher. Overall, based on the four problem-solving simulations carried out, namely Framing and Ice Breaking, Tie-Me-Up, Traffic Jam, and Twenty Bits, urge each subject to be involved, full of concentration, and follow the directions given by the researcher.

Based on the results of one of the subjects, the problem-solving training activity resulted in positive changes. The change experienced is the understanding that each of us must be able to face every problem with a patient, calm, creative, cooperative mentality and get used to practicing creativity and thinking "out of the box." All subjects involved in this research agreed upon this.

One of the reasons why the different results are not significant between using the experiential learning module and not using the experiential learning module can be identified according to the following explanation. Future researchers are recommended to consider the methods used. The use of the training method in just 4 hours is something that could be said to be too optimistic with the target of changing attitudes, especially in improving problem-solving abilities. If we refer to the Kirck Patrick training evaluation category, the pre-test, and post-test in this study are level 3 (behavior) evaluations, so their effectiveness is only felt to tend to be in the reaction (Reaction) and understanding (Learning) aspects. Future research could combine modules on experiential learning methods with role-playing, coaching, and counseling methods in a comprehensive and scheduled research time of 3-6 months.

Based on the research results, the results of the problem-solving ability test for the treatment class and control class were obtained before and after implementing the experiential learning-based Problem-Solving Training, as can be seen in Table 1.

Table 1
Pre-test and post-test descriptive statistics values in the treatment class and control class

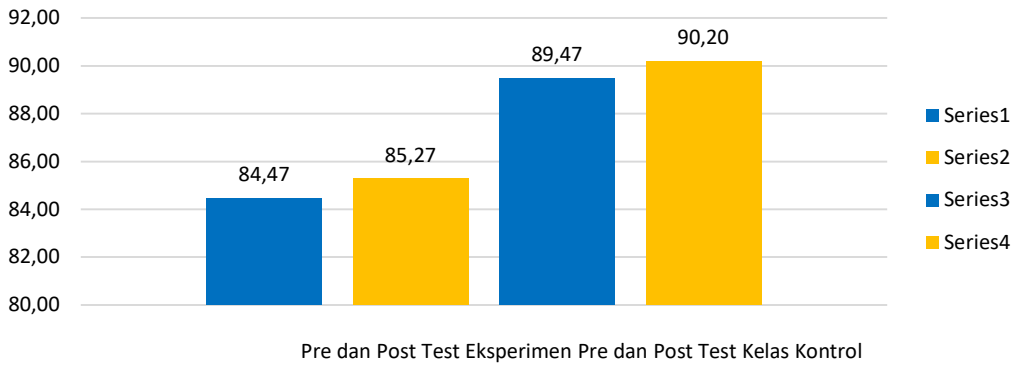
	N	Minimum	Maximum	Mean	Std. Deviation
PreTest Experiment	15	57	114	84.47	14.51
PostTest Experiment	15	72	98	85.27	8.013
PreTest Control	15	76	106	89.47	7.772
PostTest Control	15	71	111	90.2	9.785
Valid N (listwise)	15				

Table 1 shows that the average value of the pre-test to post-test results for the treatment class increased, namely from 84.47 to 85.27, with a difference of 0.8. This shows that the average problem-solving ability of new fresh graduate employees increased by less than 1 point after implementing experiential learning-based problem-solving training using Modules.

As for the data on the results of the problem-solving ability test, which did not use the Experiential learning-based problem-solving training module in the control class, it can be seen that the average pre-test to post-test results for the control class increased, namely from 89.47 to 90.20 with a difference 0.73. This difference is almost the same as the treatment class where the increase does not reach 1 point, so increasing classes that do not use the Experiential learning-based problem-solving training module does not provide much increase in the average results of the problem-solving abilities of new fresh graduate employees.

A comparison of the problem-solving abilities of new fresh graduate employees in both classes, namely the class with the experiential learning-based problem-solving training module and without the module based on pre-test and post-test results can be seen in Figure 1.

Figure 1. Comparison of pre-test and post-test results for treatment class and control class



During the research, the researcher experienced several obstacles. These obstacles include limited observation time, which can only be carried out during training activities that last only 4 hours. The reason for choosing the Experiential learning-based problem-solving training method is because the researcher has been a practitioner in this field since 1997. Through 27 years of experience, the researcher wants to create an academic and scientific foundation regarding one of the materials, which is part of the application of the experiential learning method within the scope of education. Researchers also want to introduce the general public more widely to the benefits and advantages of this experiential learning method as a method in non-formal education, which can also be practiced in formal learning in formal schools such as SDIT As-Sisi. It was proven from the results of the questionnaire that 14 of the 15 subjects studied did not know and use this method as a means in the learning process carried out at school or outside school. The training they attended and carried out was more about classical and online methods.

Problem-Solving Training Activities are based on experiential learning in the form of brainstorming, simulations/games, and group discussions. This is based on Stein and

Howard (2003), who say that Problem-Solving Training is a technique of analyzing mental problems in the process of solving individual and group problems to improve the ability to recognize and formulate problems as well as find and apply effective solutions, as well as increase understanding of someone abilities to face every problem they face. This is reinforced by Cook and Hunsaker (Setiyadi & Pasaribu, 2005), who state that teams with high-performance graphs need to apply problem-solving training techniques to increase their analytical power and make decisions.

Various activities in this problem-solving training reveal their respective aspects, including brainstorming, games, and group discussions. Brainstorming and games are very effective in uncovering aspects of raising problems, searching for and collecting facts, focusing on important facts, and thinking positively and critically. Meanwhile, group discussions function as an effort to convey various opinions to each other in dealing with problems. Group discussion activities reveal aspects of choosing and implementing the best ideas and thinking systematically. This is also in accordance with the opinion of Guffey *et al*. (Raharso & Amalia, 2012), who say that the reason for forming groups is for greater acceptance, meaning that the group has the authority to solve problems so that solutions are decided together.

Initial data analysis to determine whether the distribution of questionnaires was normally distributed or not was by using the Shapiro-Wilk Normality Test, which showed the same results in both the treatment groups that used the Experiential learning-based problem-solving training module and those that did not use the module. In the group using the module, the pre-test value had a significance of 0.915, and the post-test value was 0.677, which was greater than 0.05 (0.915 > 0.05 and 0.677 > 0.05), whereas in the control group without using the module the pre-test value -test has a significance value of 0.782, and post-test 0.870, which is greater than 0.05 (0.782 > 0.05 and 0.870 > 0.05). Thus, the pre-test and post-test scores in the two research class groups were normally distributed.

After knowing that the distribution is normally distributed, the next test is a homogeneity test, because the samples were taken from subjects with different locations and backgrounds. Data using post-test results in the treatment class which uses the Experiential learning-based problem-solving training module and post-test in the control class which does not use the Experiential learning-based Problem Solving Training module.

The results of the homogeneity test showed that the average score of problem-solving abilities of new fresh graduate employees in the treatment class that used the Experiential learning-based problem-solving training module and those that did not use the Experiential learning based Problem Solving Training module seen based on mean had a significance value of 0.511 which was higher than 0.05 (0.511 > 0.05). Thus, the two research class groups have homogeneous/same variants.

After getting the test results, which state that the pre-test and post-test scores are normally and homogeneously distributed, the next statistical test is the Paired Sample T-Test to determine the difference in the average level of problem-solving ability of

new fresh graduate employees in the treatment class group (using module) or control class (without module), before training (pre-test) and after training (post-test). The results of the Paired Sample T-Test using SPSS 29.0 for Windows obtained data as in Table 2 and 3.

Table 2
Test statistics results of paired sample t-test

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	PreTest Experiment	84.47	15	14.51	3.747
	PostTest Experiment	85.27	15	8.013	2.069
Pair 2	PreTest Control	89.47	15	7.772	2.007
	PostTest Control	90.2	15	9.785	2.526

Table 3
The result of paired sample t-test (Correlation)

		N	Correlation	One-Sided p	Two-Sided p
Pair 1	PreTest Experiment & PostTest Experiment	15	.503	.028	.056
Pair 2	PreTest Control & PostTest Control	15	.575	.012	.025

From the two SPSS data tables, descriptive statistical results were obtained as explained previously, that in the treatment class where the treatment used the Experiential learning-based problem-solving training module, it showed that the number of respondents/participants was 15 people (N=15) with an average of pre- test was 84.47, and the post-test average was 85.27. The standard deviation value in the pre-test was 14.51, and the post-test was 8.013. Lastly, the mean standard error value for the pre-test was 3.747 and the post-test was 2.069.

The average value of training results in the pre-test was 84.47 < post-test 85.27, which means that descriptively there was a difference in the average results of training using the module between the pre-test and post-test results. Next, to prove whether the difference is real (significant) or not, I interpreted the results of the Paired Sample T-Test contained in Table 3. Paired sample t-test correlation. The table shows the results of the correlation test th, the relationship between the two data, and the relationship between pre-test variables and post-test variables. Based on this table, the correlation coefficient (Correlation) is 0.503 with a significance value (Sig.) of 0.056. Because of the Sig value. 0.056 > 0.05, then it can be said that there is no relationship between the pre-test variables and the post-test variables. This means that there is no difference in the average problem-solving abilities of new fresh graduate employees between before and after Experiential learning-based Problem Solving training that uses modules.

Furthermore, according to Santoso (2014), the guidelines for decision-making in the Paired Sample T-Test based on the significance value (Sig.) of the SPSS output results are if the Sig value. (2-tailed) < 0.05, then H0 is rejected, and H1 is accepted, and if the Sig value. (2-tailed) > 0.05, then H0 is accepted and H1 is rejected.

Table 4 shows that the Sig (2-tailed) value is 0.809 > 0.05, so H0 is accepted, and H1 is rejected. Referring to the third problem formulation in this research, it can be concluded that there is no difference in the average problem-solving abilities of fresh graduate employees between before and after Experiential learning-based problem-solving training using modules. Likewise, in the control class where the results are known to have a Sig (2-tailed) value of 0.737 > 0.05, then H0 is accepted, and Ha is rejected. So, it can be concluded that there is no difference in the average problem-solving ability of new fresh graduate employees between before and after Experiential learning-based Problem-Solving training without using modules.

Table 4
The results of paired sample test

		Paired Differences			95% Confidence Interval of the Difference				Significance	
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	One-Sided p	Two-Sided p
Pair 1	PreTest Experiment & PostTest Experiment	-.800	12.565	3.244	-7.758	6.158	-.247	14	.404	.809
Pair 2	PreTest Control & PostTest Control	-.733	8.285	2/139	-5.321	3.855	-.343	14	.368	.737

Furthermore, to answer the fourth research question, which wanted to know the difference in the level of problem-solving abilities of fresh graduate employees between the treatment class and the control class, the Independent Sample T-Test with SPSS 29.0 for Windows was used. The results from SPSS can be seen in Tables 5 and 6.

Table 5
Group statistics

	Module	N	Mean	Std. Deviation	Std. Error Mean
Initial PS capabilities	The experiment by using EL module	15	84.47	14.51	3.747
	The control without EL module	15	89.47	7.772	2.007
final ps capabilities	The experiment by using EL module	15	85.27	8.013	2.069
	The control without EL module	15	90.2	9.785	2.526

From the data in Table 5, you can see the same statistical description as the previous test, namely, the number of samples in the treatment group and control group was 15 people (N=15). The average pre-test result for problem-solving abilities of fresh

graduate employees in the treatment class was 84.47, and in control, the class was 89.47. The average score of the post-test results for the problem-solving abilities of fresh graduate employees in the treatment class was 85.27, and in the control class, it was 90.20. The standard deviation value in the pre-test for the treatment class was 14.51, and the standard deviation for the pre-test in the control class was 7.772. The standard deviation in the treatment class post-test was 8.013, and the standard deviation in the control class post-test was 9.785.

Lastly, the mean standard error value for the pre-test in the treatment class was 3.747 and in the control class was 2.007, while the mean standard error for the post-test in the treatment class was 2.069 and in the control class was 2.526. The descriptive data above shows that there is a difference in the average level of problem-solving ability of new fresh graduate employees in the treatment class and the problem-solving level of new fresh graduate employees in the control class.

Table 6
The results of independent sample t-test

		F	Sig.	t	df	One-Sided p	Two-Sided p	Mean Difference	Std. Error Difference	Lower	Upper
Initial PS capabilities	Equal variances assumed	3.012	.094	-1.176	28	.125	.249	-5.000	4.250	-13.706	3.705
	Equal variances are not assumed.			-1.176	21.422	.126	.252	-5.000	4.250	-13.828	3.828
final ps capabilities	Equal variances assumed	.444	.511	-1.511	28	.071	.142	-4.933	3.266	-11.622	1.756
	Equal variances are not assumed.			-1.511	26.952	.071	.142	-4.933	3.266	-11.634	1.767

To prove whether the difference in the level of problem-solving abilities of new fresh graduate employees between the treatment class and the control class is significant, an Independent Sample T-test was carried out. The guidelines for decision-making in the Independent Sample T-Test are based on the significance value (Sig.) of the SPSS output results if the Sig. (2-tailed) < 0.05, then H0 is rejected and H1 is accepted, and if the Sig. (2-tailed) > 0.05, then H0 is accepted and H1 is rejected.

In Table 6, columns 1 and 2 show the results of the Levene test with a significance value of 0.094 > 0.05, which means that the variance between the treatment group and the control group is homogeneous or the same (Sujarweni, 2014), so the interpretation in table 4.12 above is based on the value contained in the line "Equal variances assumed". Based on Table 4.12 of the Independent Sample T-Test results in the "Equal variance assumed" section above, it is known that the Sig (2-sided) value is 0.249 > 0.05. So, as is the basis for decision-making in the Independent Sample T-Test, it can be concluded that H0 is accepted and H1 is rejected. Thus, it can be concluded that there is no significant difference

between the average problem-solving ability of fresh graduate employees in Experiential learning-based problem-solving training that uses modules and those that do not use modules.

CONCLUSIONS

Based on the results of the researcher's analysis, it can be concluded that the problem-solving abilities of new fresh graduate employees before participating in Experiential learning-based Problem Solving training, which uses modules with an average pre-test score of 84.47 and the problem-solving abilities of new fresh graduate employees after attending the training Experiential learning-based Problem Solving using modules with an average post-test score of 85.27.

There is no significant difference in the average problem-solving ability of fresh graduate employees before and after participating in Experiential learning-based problem-solving training, which uses a module that refers to the results of the Paired Sample T-Test with a significance value of 0.809 > 0.05. Likewise, research shows that there is no significant difference in the level of problem-solving abilities of new fresh graduate employees between Experiential learning-based problem-solving training that uses modules and those that do not use modules, which refers to the results of the Independent Sample T-Test with a significant value of 0.249 > 0.05.

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