The Effect Of Problem-Based Learning With Role Playing On Cadets' Motivation

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ARTICLEINFO	ABSTRACT
	This study aims to analyse the effect of problem-based learning with role playing on cadets' motivation. This study uses a quantitative research approach with a Quasi Experimental Design research design using the nonequivalent pretest-posttest group design method. The sample of this study consisted of an experimental group and a control group consisting of 50 police academy cadets each. Data collection techniques using questionnaires, data analysis techniques using normality, homogeneity and t-test tests. The results of the analysis obtained a value of 0.000 <0.05 which indicates a significant effect. In conclusion, the application of problem-based learning with role playing affects the cadets' motivation. **Keywords:** Problem Based Learning, Role Playing, Motivation

1. Introduction

The Police Academy or commonly referred to as Akpol is an educational institution to produce Police Officers. There is a police academy whose learning is specifically designed with the aim that the cadets who study in it when they graduate can carry out the police profession properly. The establishment of Akpol is in accordance with its purpose, with the hope that the cadets who have graduated and become Police Officers can carry out the duties and dignity of the police properly. To create good cadets, it is necessary to train them to always obey all existing regulations, one of which is the police code of ethics through personal character development of cadets. Character comes from internalised beliefs and habits, which will direct how one acts in everyday life. (Rosidah dkk., 2022). Character development is the transformation of a character's personality, from bad to good, or even from good to bad, influenced by psychological factors or intrinsic elements and environmental observations (Hasanah dkk., 2018). Character development can be enhanced by participating in various activities that are designed to educate (Chao, 2023).

The material on the police code of ethics given to the cadets is in the form of conceptual and practical material. It is expected that during the delivery of conceptual material, it is strengthened by direct practice in the field, so that the material on the police code of ethics can be conveyed properly and meaningfully and can be implemented when entering the field. However, during the learning process, there were gaps in the learning outcomes of the cadets because there were indications that their motivation had decreased, the assumption could be from the dynamics of busy daily activities or because the material content was difficult to understand due to differences in character, learning style and learning capacity of the cadets.

Recent findings of problems regarding abuse of authority, arrogance, human rights violations and other negative things committed by Police Officers. This shows the importance of the police code of ethics material delivered to cadets from the time they enter the police academy(M. I. Sholeh & Fathurro'uf, 2024). Instructors are required and encouraged to master the material, understand each individual cadet and manage the class well so that the learning process can run well. If during the learning activities the police code of ethics material can be carried out well, the motivation of the cadets will increase which will also have an impact on the learning outcomes(Satria & Sholeh, 2024). Motivation is a combination of effort and enthusiasm to achieve desired learning goals (Tulgar, 2022). Motivation has been defined as one of the key factors that influence academic achievement (Davidovitch & Yavich, 2023). Motivation as energy and enthusiasm to learn, learn effectively, and realise one's potential (Bakir & Turgut, 2023).

Based on the problems above, it is necessary to increase the motivation of the cadets with a learning model that encourages cadets to develop their abilities, skills, knowledge, and insights more deeply on the material of the police code of ethics in the hope that their motivation will increase. In this case, researchers chose a problem-based learning model, where cadets are taught to analyse and recognise a problem given by the instructor and then try to find a solution to solve the problem. As an effort to increase the effectiveness of learning, in this study the problem-based learning model is collaborated with role playing. So it is expected that cadets can experience firsthand how and what to do to solve the problems given by the instructor.

This research aims to investigate the effect of problem-based learning with role play on cadet motivation. This study aims to examine the effect of problem-based learning with role play on cadet motivation.

2. Literature Review

Problem Based Learning

Problem solving is an important component of the curriculum and requires attention in learning (Nayazik, 2017). Problem solving requires a search for rules, plans, or strategies that will help individuals achieve their currently unreachable goals. During this enquiry, individuals test their problem-solving skills by looking for different and new solutions and benefiting from previous experiences (Afacan & Kaya, 2022). A 'problem' is a puzzling situation that one has to solve using previous experience and knowledge. Researchers and theorists develop various ideas and methods related to the process of solving problems. The various models of solving are information processing, cognitive science, constructivism, and models that describe problem solving (Özpınar & Arslan, 2023). Problem solving is a process that requires effort to clear the difficulties encountered in order to achieve a certain goal. An individual who can solve their problems has higher confidence in decision-making, and they are more sociable in social interactions and have a positive self-perception (Güneş, 2022). The development of problem-solving skills needs to be done over a long period of time. Therefore, problem solving skills need to be developed since they are still cadets. Problem solving is the most important skill needed in all areas of life. Problem solving begins with recognising that a problem situation exists and builds an appreciation of the nature of the situation. It requires the problem solver to identify the specific problem to be solved and to plan and determine the solution, but still keep monitoring and evaluating progress throughout the activity (Hollenstein dkk., 2022).

Problem-based learning is a teaching concept that can make a difference in the academic environment, especially when dealing with diversity, and support the successful completion of students' studies. Problem-based learning has been widely used, developed, combined in various educational fields and contexts to encourage critical thinking and problem solving in authentic learning situations (Yew & Goh, 2016). Problem based learning is one of the most well-known teaching concepts that places individual experience at the centre of learning (Heuchemer dkk., 2020). Problem based learning facilitates a self-directed learning approach with students working collaboratively to achieve a common learning outcome goal (Magaji, 2021). One approach that can improve problem solving skills in students is problem-based learning. This learning is widely adopted and implemented in a variety of fields and educational contexts to encourage critical thinking and problem solving in authentic learning cases (Kök & Duman, 2023).

Problem-based learning has many positive values and is good when applied in learning. Problem-based learning develops positive attitudes and social attitudes, helps students acquire valuable knowledge and skills (Lubis dkk., 2022). Problem based learning supports the development of learners' skills such as critical thinking, problem solving, and communication, as well as providing opportunities to work in groups, discover and evaluate subject matter and lifelong learning (Hatipoğlu & Semerci, 2023). Problem-based learning provides opportunities for students to participate in learning activities through group work to identify and analyze assigned problems with self-oriented learning objectives (Polyiem & Nuangchalerm, 2022). Problem-based learning contributes to the development of four skill areas in students: practical problem-solving skills with flexible information, self-regulated learning skills, effective teamwork skills, intrinsic motivation skills (Uluçinar, 2023).

Despite the privileges that problem-based learning offers, it still has its weaknesses, which lie in the individual learner. The weakness is that this problem-based learning model is not able to improve students' conceptual knowledge (Shishigu dkk., 2018). Another weakness of the problem-based learning approach lies in individual factors. This factor can affect the implementation of problem-based learning as well as learning outcomes (Chamidy dkk., 2020). This weakness is because learning is designed in group discussions, but each individual learner has a diversity of knowledge about the subject matter, different learning capacity and in the learning process. Therefore, the instructor must be careful in dividing, directing, guiding during the learning process properly, effectively and efficiently.

Role Playing

One of the models that can usually be used in cooperative models is the role-playing method. Role-playing is a tool that allows teachers to introduce activities similar to real life so that students can understand a topic in greater depth. The role-playing method is a learning method that places students in certain situations outside or inside the classroom during learning (Suharini & Baharsyah, 2020). Role play can be defined as a shared fiction that develops some type of narrative without a predetermined script in which each player assumes a

particular role and acts consequently (Hernández-Prados dkk., 2021). Role playing games can be an effective and solutive way to educate, practice and develop individuals with social ethics and intellectual development (Kim dkk., 2022).

The main relevant opportunities for learning from role play are: portraying a character, manipulating a fictional world, generating an altered sense of reality, and sharing an imaginative space(Sholeh, 2023). Role-playing is an activity in which a person puts themselves in the shoes of another person or enters an imaginary state as themselves (Mehdiyev, 2020). Role-playing provides experiences for players, supports learning outcomes, games can be embedded in formal learning environments and used as part of learning plans (Hammer & Turkington, 2021). Role-playing is one of the most widely used learning techniques, where participants adopt specific roles and interact with each other, taking into account the real context (Gutiérrez-Huancayo, 2023).

Motivation

Motivation is used to improve individual effectiveness and efficiency. Motivation comes from the Latin word "movere", meaning desire, need, and care. Motivation expresses the inner strength that a person needs and includes the feelings associated with completing a task and deriving satisfaction from it (Subasi, 2023). Motivation is defined as the process by which target-orientated activities are initiated and maintained (Kılıç dkk., 2021). Motivation is the energy that moves the effort that leads a person perform activities to reach a goal (Lena dkk., 2022). motivation is a determinant of the intensity of student learning efforts as a motivator and supporter and ensures the continuity of student learning so that the desired goals can be achieved (Diah dkk., 2022).

Motivation is divided into two types, namely intrinsic and extrinsic motivation. Intrinsic motivation can be defined as an internal drive that comes from within an individual, which helps fulfil their personal needs. It also refers to an individual's self-motivation to engage in a task, without the influence of external stimulation and actively participate in the process of achieving goals('azah dkk., 2024). Extrinsic motivation refers to the improvement of an individual's performance that is fuelled by external influences(Sholeh, 2023). This motivation requires strong persistence through the use of punishment and rewards, and individuals exert effort to achieve a certain position (Subasi, 2023). Intrinsic motivation refers to engagement in an activity that delivers satisfaction, pleasure, interest, or challenge to the activity itself. Extrinsic motivation refers to participation in an activity because of external pressures, demands, or rewards (Huang & Reynolds, 2022). Intrinsic motivation is the part that is inherent in the individual and is the drive to engage in activities based on desire and pleasure. It is also called motivational action that comes from within the individual, and the involvement is entirely voluntary(M. I. Sholeh & Syafi'i, 2024). Extrinsic motivation comes from factors outside the individual that encourage the individual to become involved in the activity as a way to achieve a purpose (Davidovitch & Dorot, 2023).

3. Research Design

The research employed a Quasi-Experimental Design with a nonequivalent pretest-post-test design. The sampling technique used was purposive sampling. The sample for this study consisted of 100 cadets from Police Academy. 50 cadets in experimental groups and 50 cadets in control groups. Data collection technique using questionnaires with a Likert scale (1-4) to collect motivation data for cadets. Data analysis was conducted using independent sample t-tests with a significance level of 0.05 using software SPSS Statistics and Microsoft Excel.

Motivation questionnaires in this study includes 7 indicators, namely: (1) Initiation of action to complete learning or achievement goals (2) Planning appropriate learning activities and setting appropriate sub-goals, (3) Creating favourable conditions and obtaining appropriate resources to support learning activities, (4) Choosing a challenging level of difficulty that ensures optimal learning progress, (5) Lower tendency to procrastinate, (6) Sufficient quantity of effort (7) Resilience, especially in the face of adversity, (8) High-quality effort in terms of applying effective types of learning strategies and appropriate forms of self-regulation, (9) Limited thinking that is irrelevant to one's actions, (10) Experiencing emotions that are conducive to one's actions (Hall & Goetz, 2013). Motivation questionnaires were given twice in the pretest and posttest. Pretest and posttest questions were given to the students in the experimental groups and control groups to evaluate their learning outcomes(Sholeh, 2024). The experimental group received treatment by applying online collaborative learning with role play on the material of the police code of ethics, while the control group applied their usual learning.

4. Findings

To determine the effect of problem-based learning with role playing by testing the results of posttest data obtained during the study. From the data, hypothesis testing will then be seen using the normality test, homogeneity test and t-test, using the SPSS Statistics application. The results of the posttest data normality test are described in table 1.

Tabel. 1 Output Normality Test

Tests of Normality

	Group	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Motivation	Control Group	.114	50	.108	.964	50	.125
	Experiment Group	.109	50	.189	.960	50	.093

a. Lilliefors Significance Correction

Based on Table 1, the data distribution is normal. This can be seen at the posttest significance levels, more significant than 5% significance or > 0.05.

Tabel. 2 Output Homogenity Test

		Levene Statistic	df1	df2	Sig.
Motivation	Based on Mean	.667	1	98	.416
	Based on Median	.424	1	98	.516
	Based on Median and with adjusted df	.424	1	97.435	.516
	Based on trimmed mean	.620	1	98	.433

Based on Table 2, the data distribution is homogen. This can be seen at the posttest significance levels, more significant than 5% significance or > 0.05. After all data qualify for normal distribution and homogeneity. The results of posttest data analysis are presented in Table 3.

Tabel. 3 Output Posttest Independent Sample T Test

Independent Samples Test

		t-test for Equality of Means						
		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
							Lower	Upper
Motivasi	Equal variances assumed	-5.756	98	.000	-7.140	1.241	-9.602	-4.678
	Equal variances not assumed	-5.756	97.263	.000	-7.140	1.241	-9.602	-4.678

Based on Table 2, data testing through the independent sample t test obtained a significance value of 0.00 <0.05, meaning that there is a significant effect, so that the application of the problem-based learning model with role playing affects the cadets' motivation in the material of the police code of ethics.

5. Discussion

Based on the results of data analysis, it was found that the application of problem-based learning with role playing has an effect on cadet motivation in the material of the police code of ethics. This is based on the results of the independent sample t test on the posttest data obtained a significance value of 0.00 <0.05. The impact of the implementation of this model is supported by the advantages possessed by problem-based learning with role playing.

The application of problem-based learning will make students realise that there is a difference between theory and practice. Learning theory alone will not be efficient to be applied in social life. Combining theory with real practice will be more efficient to help students become confident and apply their learning in real life (Alfares, 2021). Problem-based learning as a learning approach contributes to the programme objectives and students' critical thinking and problem-solving skills by taking problems from real life (Kök & Duman, 2023). One of the advantages of implementing problem-based learning in the classroom is that it promotes collaboration, as individual students have different skills and competencies, but through group work they practise knowledge exchange and complement each other to solve problems (Camperos dkk., 2022).

The results of this study have similarities with the results of previous research. research results show that game-based learning can increase student interest and motivation which contributes to learning outcomes (Brom dkk., 2019). Role playing procedurally and practically implies the concept of game-based learning. Implementation of problem-based learning assisted by role playing to increase motivation (Wahyuni dkk., 2018). The results showed that students' motivation was higher towards the implementation of problem based learning (Fukuzawa dkk., 2017). The problem based learning can develop learning motivation (V. D. Pratiwi & Wuryandani, 2020). The implementation of problem-based learning model is able to increase motivation (I. Pratiwi dkk., 2023).

6. Conclusion

The results of research on the effect of problem-based learning with role playing show that there is an influence on the cadets' motivation. Thus, problem-based learning with role playing can be an alternative learning model to increase the cadets' motivation in learning activities at police academy.

7. Acknowledgment

8. References

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