

THE EFFECT OF ROOM TEMPERATURE ON THE LEARNING CONCENTRATION OF PSYCHOLOGY STUDENTS IN CLASS PI3 OF UIN RADEN FATAH PALEMBANG

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ABSTRACT

The purpose of this study was to determine the effect of room temperature on the learning concentration of psychology students in class PI3. This research was conducted at the Psychology Faculty of Raden Fatah University, Palembang, with a sample of all students of the PI3 class of the psychology faculty. The method used in this research is quantitative with a quasi-experimental research type. The research design used is static group design. The data analysis of this study used an unpaired sample t-test, namely the independent sample t-test. The results of this study indicate that the value of sig. (2-tailed) obtained is $0.000 < 0.05$ so it can be concluded that H_0 is accepted. So it can be said that the room temperature has an influence on the concentration of studying psychology students in the PI3 class of the State Islamic University of Raden Fatah, Palembang.

Keywords: Room Temperature, Study Concentration, Psychology

INTRODUCTION

Education in Indonesia has a function to develop capabilities and shape the character and civilization of a dignified nation in the context of the intellectual life of the nation, then aims to develop the potential of students to become knowledgeable, capable, creative and independent human beings. The government continues to strive to improve the quality of education in Indonesia, so that it is hoped that students will feel more comfortable in learning, increase learning concentration and in the end the quantity and quality of learning can be optimized.

The most basic of problems in learning is concentration. In higher education according to (Putri, Nurfajriyani, and Fadilatussaniatun 2020) students are required to have high concentration. Through learning

concentration, students are able to follow the learning process so that they are able to achieve the expected learning objectives. Concentration is needed in the process of reading, listening, and writing. Because concentration is so important for students, this research is intended to see whether there is an influence between room temperature and the learning concentration of students in class PI3 of the psychology faculty of UIN Raden Fatah Palembang.

Concentration of learning is the ability to direct all thoughts and actions so as to be able to learn something well. When studying material in class, students often experience various kinds of disturbances (noise) that come from inside and outside themselves so that they can interfere with learning concentration. The learning atmosphere where the class is full, hot weather, noise from outside the room also often makes students experience distractions making it difficult to concentrate (Ikawati 2015).

According to (Setiyorini 2016) learning concentration can be influenced by various factors, one of which is temperature. With regard to the stability of room temperature, it is in accordance with the study of air comfort (temperature and humidity) compiled by ASHRE (American Society of Heating Refrigeration and Air-conditioning Engineers) Standard 55-1992 and ISO 7730 which states that temperature comfort is a feeling in the mind. humans who express satisfaction with their thermal environment (Hartawan 2012). This is also due to the different temperature immunity of the human body. The standards set by SNI 03-6572-2001 are related to a comfortable temperature level for Indonesians, namely:

- a. Cool and comfortable, between the effective temperature of 20.5°C - 22.8°C .
- b. Optimal comfort, between the effective temperature of 22.8°C - 25.8°C
- c. Warm and comfortable, between the effective temperature of 25.8°C - 27.1°C

This indicates that room temperature plays an important role in determining one's comfort. Classroom temperatures that are too hot or cold can cause disturbances, hot or humid rooms can cause psychological reactions from someone, such as:

- a. The reaction to heat causes an increase in temperature to a certain

extent, causing arousal that stimulates performance, but after exceeding a certain limit the increase in temperature that exceeds the normal temperature limit has begun to affect human body temperature which results in disruption of work performance. Judging from the overload theory, excessive and too high environmental temperatures cause an increase in psychological burden (stress) on humans so that it will reduce attention. Judging from the behavioral constraint theory, environmental temperatures that are too high will cause a decrease in the perception of human control over the environment so that it can reduce the level of concentration.

- b. The reaction to cold or the physiological reaction to cold air temperatures (below 68°F or 20°C) is in some ways different from the physiological reaction to heat. The impact of cold air temperatures on human behavior is very complex due to several things, namely:
 - 1) Humans rarely do activities in cold temperatures without wearing protective clothing such as thick clothing or wearing a jacket.
 - 2) Due to the different physiological and behavioral reactions of humans to cold air temperatures, this is what causes differences and becomes complex.

So that the hypothesis in this study is formulated as:

- a. H_0 : There is no effect of room temperature on the concentration of psychology students in class PI3 UIN Raden Fatah Palembang
- b. H_a : There is an effect of room temperature on the concentration of psychology students in class PI3 UIN Raden Fatah Palembang

RESEARCH METHODS

The method in this research is quantitative with a quasi-experimental research type. In this study, there are two variables that become the focus of research, namely the independent variable and the dependent variable. The independent variable is room temperature, while the dependent variable is learning concentration. The research design used was a static group design, where there were two groups, namely the experimental group (KE) and the control group (KK). In this design, the researcher can only give certain variations to the EC and provide other variations or not give any variation to the KK. Then these two groups were given a posttest or a questionnaire

adapted from previous researchers to find out whether there was an effect between room temperature and learning concentration . Graphically, the design of this study is described in table :

Table 1

Research Design Static Group Design

Group	Treatment	Posttest
Experiment	X	O _E
Control	-	O _K

(Adapted from : Liche Seniati, et al.,2017)

The population in this study were all students of the psychology faculty at Raden Fatah University, Palembang, class of 2020, fifth semester of class PI3. And with the use of the static group design research design, the sample used in this study has been determined by the researchers who are included in the experimental group and the control group.

After the researcher conducted the experiment, the researcher distributed questionnaires (posttest) to all respondents. Data collection is done by giving a learning concentration scale. This study uses the Product and Service Solution (SPSS) for Windows version 22.0 to calculate the data and to analyze the data. This study uses an unpaired sample t-test, namely the independent sample t-test.

RESULTS AND DISCUSSION

Hypothesis testing in this study was carried out using parametric inferential statistical tests, namely the Independent Sample T-Test test. Testing this hypothesis aims to see the difference in the learning concentration of students in class PI3 of the psychology faculty of UIN Raden Fatah Palembang based on the difference in room temperature given as a treatment. The statistical hypotheses in this test are as follows: :

- a. Room temperature has no effect on the concentration of psychology students in class PI3 UIN Raden Fatah Palembang
- b. Room temperature has an influence on the concentration of psychology students in class PI3 UIN Raden Fatah Palembang.

Table 2

Group Statistics					
				Std.	Std. Error
		N	Mean	Deviation	Mean
Score	Experiment	15	15.47	2.669	.689
	Control	15	11.07	2.052	.530

(Source: SPSS 22.0) statistical processing data

If seen from table 2 above, this study used a sample of 30 respondents and the mean value in the experimental group was 15.47 and the control group was 11.07. Thus, it can be seen that the average of the experimental group is higher than the control group so that the experimental group or the group that is given treatment in the form of a hot room temperature, the room temperature greatly affects their learning concentration.

Hypothesis testing has test criteria in the form of, if the significance value (2-tailed) > 0.05 , then H_0 is accepted. Conversely, if the significance value (2-tailed) is < 0.05 , then H_0 is rejected. After calculating using SPSS, the results of the independent sample t-test hypothesis test were obtained as follows:

Table 3

The results of the independent sample t-test

Independent Samples Test

		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
Nilai	Equal variances assumed	1.557	.222	5.062	28	.000	4.400	.869	2.619	6.181
	Equal variances not assumed			5.062	26.263	.000	4.400	.869	2.614	6.186

(Source: SPSS 22.0 statistical processing data)

Based on the table above, it is known that the significance value (2-tailed) obtained is 0.000. This number is smaller than 0.05 so it can be concluded that H_a is rejected and H_0 is accepted. This means that the room temperature has an influence on the learning concentration of psychology faculty students in class PI3. Raden Fatah State Islamic University, Palembang.

CONCLUSION

Based on the results of this experimental study, it can be concluded that there is an effect of room temperature on the learning concentration of students of the psychology faculty class PI3 UIN Raden Fatah Palembang. This can be seen from the independent sample t-test test with the help of SPSS software version 22.0 which shows that students of the psychology faculty class PI3 obtained the results of Sig. (2-tailed) = 0.000 so that H_0 is rejected and H_a is accepted.

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