L A P O R A N
PENELITIAN

Reflection of Alpha Theta Brain Waves To Increase Student Interests

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Universitas Nurul Jadid
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Tahun 2020

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" pada tanggal 15 Maret s.d. 30 Desember 2020

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Reflection of Alpha Theta Brain WavesTo Increase Student Interests

Abstrak. This research is a quantitative study, which aims to find the effect of alpha theta brainwave reflection on student learning interest in the PGMI study program at the Islamic Faculty of Nurul Jadid University, Paiton, Probolinggo, East Java, Indonesia. The results showed that this wave can be achieved by performing a series of techniques to relax and calm the mind naturally to reach a point of clarity of focus and wisdom. In this wave phase one easily understands and memorizes something new, and fosters enthusiasm and interest in learning new information.

BAB I
PENDAHULUAN

The human brain is the most complex part in the human body [1]. Human brain waves are electrical waves generated by the brain. These waves can be measured through the frequency and amplitude where each wave has its own function and will affect the patterns of brain activity and the resulting behaviour [2]. The human brain has a realm of mind in which there are two types of thoughts, namely the conscious mind and the subconscious mind that work together and at the same time, but work in different ways, so do not work alternately [3]. Brain wave therapy can be linked to the learning process because these waves can improve the performance of the brain to concentrate more on increasing memory power and also intelligence, including alpha waves and theta waves [3]. Research conducted by Andi Nurul Fatma, which concluded that the conditioning of alpha zone brain waves in apperception of learning is to create an atmosphere of learning that allows students to be comfortable and relaxed in their learning. The effort was made through classical music and fun stories. The alpha zone conditioning at the apperception of learning is very important because at the beginning of learning determines the next learning process [4]

Likewise with Fashbir, which states that the type of sound significantly affects the theta signal, and the effect of sound on this signal varies greatly, depending on conditions. This type of treatment, statistically, does not significantly affect alpha signals [5]. Alpha-theta waves are waves that create a sense of calm, happiness, and creativity. The ability to temporarily change self-awareness from one frequency to another whose effects will help balance the brain, heart, and soul. This will make someone good at reading situations and good at putting themselves in any atmosphere so as if always in the right place at the right time. This condition is very suitable for the learning process. Learning activities is a process of changing human behavior or abilities. Learning is the most basic activity in the whole education process [6] [7]. This implies that the success or failure of achieving educational goals depends a lot on how the learning process experienced by students [8]. Achievement of the learning process will be fulfilled if students have an interest in the learning process [9]. Interest in learning can be achieved if students have motivation [10] [11]. Learning motivation in a person can be driven by several aspects [12], including conditions that encourage behavior namely learning behavior due to encouragement and learning needs [13]. Behavior that is driven by circumstances that is an appreciation in learning or the presence of activities and conditions that are interesting in learning so that it encourages learning [4]. Interest is a sense of preferability and a sense of attachment to something or an activity without anyone asking. Interest as a constant tendency to pay attention constantly accompanied by a sense of pleasure [14]. The statement indicates that interest is characterized by feeling more like, feel attracted or feel happy as a form of expression of something that is of interest.

BAB II
METODE PENELITIAN

Research Design This research is Pre Experiment Design. Based on the problem and learning objectives, the appropriate research design is Intact-Group Comparison. In this design two parallel classes are used, one class is used for experiments that are treated and one other class as a control class that is not treated [15] This research was conducted at PGMI study program at the Islamic Faculty of Nurul Jadid University, Paiton, Probolinggo, East Java, Indonesia. The population of all PGMI students was 47 students. The sampling technique used in this study was purposive sampling [16]. The sample was chosen based on consideration of the implementation of the study, namely the experimental class and the control class which were the recommendation class in accordance with the research objectives and between the experimental class and the control class there were no gender differences and the class grouping was not based on academic ability

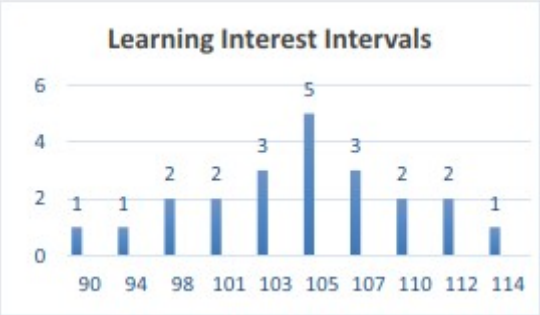
BAB III
HASIL DAN PEMBAHASAN

The results of the analysis revealed that the reflection of alpha theta brain waves in the experimental group class PGMI VI A obtained a percentage value of the implementation of alpha theta wave conditioning by 100%, the syntax of the implementation score was carried out as a whole and was in accordance with observations. The results in the experimental class are as follows:

Table 1. Interest Data Learning Experiment Class

No	Interval	Total	%	Category
1	95-116	20	90,90	Very high
2	73-94	2	9,09	High
3	51-72	0	0	Low
4	29-50	0	0	Very low
Total		22	100	

According to the table above, it can be understood that the data obtained after treatment there are a number of students who obtain very high learning motivation as many as 20 students with a percentage of 90.90%, high learning motivation as many as 2 students with a percentage of 9.09%, presented in the following histogram this:



Furthermore, the data of students' interest in learning in the experimental class, namely PGMI VI A class can be seen that after being given special treatment in the form of reflection of the alpha theta zone brain waves in pre-learning, obtained a category of student learning charms presented in the following table:

Table 2. Descriptive statistics of learning interest

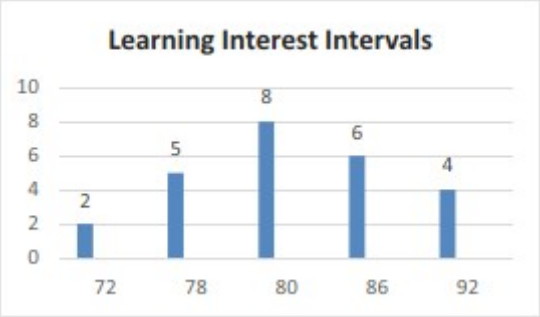
Descriptive statistics	Score
Number of Samples	22
Maximum score	114
Minimum Score	90
Average	104,22
Standard Deviation	5,849
Variance	34,22
Variation Coefficient	5,61 %

After conducting research and processing of research data in the control class without the alpha theta brain wave conditioning obtained the following data:

Table 3. Data of Learning Interest in Control Class

No	Interval	Total	%	Category
1	95-116	0	0	Very high
2	73-94	23	92,00	High
3	51-72	2	8,00	Low
4	29-50	0	0	Very low
Total		25	100	

According to the table above, it is understood that the data obtained after treatment contained the number of students who received high learning motivation totaling 23 students with a percentage of 92.00%, low learning motivation of 2 students with a percentage of 8.00%, which is presented in the following histogram:



Furthermore, students' interest in learning data in the control class, namely PGMI VI B class, can be seen that after being given special treatment in the form of reflection of the alpha theta zone brain waves in pre-learning categories obtained student learning charms are presented in the following table:

Table 4. Descriptive statistics of learning interest

Descriptive statistics	Score
Number of Samples	25
Maximum score	92
Minimum Score	72
Average	82,56
Standard Deviation	5,849
Variance	33,56
Variation Coefficient	7,08 %

From the results of the above analysis, it was found that the experimental group that was given alpha theta brainwave reflection treatment had a very high interest in learning. Whereas in the control group who were not given the treatment of brain wave reflection only had an interest in learning that was not too high tends to be low.

BAB IV
PENUTUP

From the results of the research that has been done, it can be concluded that; there was a significant difference between the control and experimental groups after the alpha theta realm brain wave treatment. In the treatment group, namely the students of PGMI VI A class have a very high interest in learning. Whereas in the control group of PGMI VI B class students who were not given treatment, brainwave reflection only had an interest in learning that was not too high tends to be low. The highest interval of interest in learning is found in the experimental class PGMI VI A, with a score of 114 with an average interval of 104.22. While the control class PGMI class VI B only had the highest score of 92 with an average interval of 82.56. So with this data, it can be concluded as a whole that the reflection of the alpha theta wave influences students' interest in learning.

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