



ASEAN Journal of Educational Research and Technology



Journal homepage: <https://ejournal.bumipublikasinusantara.id/index.php/ajert>

Efforts to Improve Young Generation Problem Solving in the Era of Globalization Using Six Thinking Hats Analyzed with SPSS: Solving Literacy, Read, and Hoax

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ABSTRACT

Today's Young Generation is often confused by the choices they have to make to enter college. With so many choices available, it can affect the choice of young people in making decisions to take the majors and campuses of their choice, as a result, many young people choose the wrong majors and end up unused by individuals, which wastes time and effort. As many as 87% of RI students feel they have the wrong major because many of them choose to follow their friends' and parents' reasons. Since many young people have this problem, the author researched to help young people in this position to think more effectively and make better decisions, namely with six thinking hats. "According to Dr. Edward De Bono, a psychologist, the six thinking hats method involves wearing six different colored hats, each representing a different way of thinking. With several "hats", the younger generation can see from 6 different perspectives. This six-thinking hats method can be an appropriate method to use in considering their choices. In this study, the author uses a one-group post-test experiment, which aims to help young people think about the right decision in overcoming the wrong major phenomenon.

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ARTICLE INFO

Article History:

Submitted/Received 23 Sep 2023

First Revised 16 Nov 2023

Accepted 20 Dec 2023

First Available online 21 Dec 2023

Publication Date 01 Sep 2024

Keyword:

Problem-solving,

Six thinking hats,

Young generation.

1. INTRODUCTION

Many of today's young generation are victims of hoax news circulating on the internet. According to the Head of the Social Media Management Center of the Indonesian Presidential Staff Office, Alois Wisnuhardana, teenagers easily believe in hoaxes because young people tend to be emotional. Any information that comes in, especially sensational ones, will be immediately disseminated (Rachman, 2019). In addition, many teenagers are too lazy to read. It can be seen that the reading interest of Indonesians is ranked 60 out of 61 countries (Cahyani, 2020). The low literacy possessed by the young generation can affect their problem-solving skills (Samosir, 2022). This can be proven by low interest in reading and not being able to think critically in obtaining the information they get. In addition to low literacy, many of the young generation still depend on others, such as friends and parents. This problem has an impact on their problem-solving and decision-making skills.

Problem solving is the ability to solve problems with the right decision making (Hariawan, 2014), problem solving is very important for the life of the young generation because it can help the young generation to overcome various kinds of problems faced daily (Setiawan, 2019). Problem-solving is not only about finding a way out of a problem but can also create new solutions and innovations that can be used daily by the young generation (Aedi, 2020).

Many Indonesian students experience the phenomenon of wrong majors (Pertiwi, 2021). This problem proves that the younger generation in the era of globalization lacks problem-solving and decision-making skills. Therefore, the younger generation needs to develop problem-solving skills to overcome various problems faced daily, including in choosing college majors (Faroh, 2022).

This method can help the younger generation in overcoming various problems faced daily, including in choosing college majors. In the "Six Thinking Hats" method, there are six types of hats, each hat looks at a problem from a different point of view. By using this method, the young generation can develop problem-solving and decision-making skills more effectively. Not only effective in choosing college majors but also in overcoming various problems faced daily. Therefore, researchers made a study entitled Efforts to Improve "Young Generation Problem Solving in the Globalization Era using Six Thinking Hats" which aims to improve the problem-solving ability of adolescents.

2. METHODS

This research used a quantitative approach. This research was conducted at SPK SpInS Interaction School which is located in West Surabaya. More precisely Street Karangan PDAM No.24, Wiyung, district Wiyung, Surabaya. With a distance of approximately 23 minutes from the city center of Surabaya. The subject of this research is the 11th grade of the SpInS Interactional School SPK school which is 30 people ranging in age from 16-18 years who are included in the young generation category in the era of globalization.

The initial research procedure begins with choosing a problem that is suitable and relevant to the lives of young people or the young generation in the era of globalization, after the researcher finds a suitable problem begins to make a literature study of sources that can support this research. The formulation of the problem that has been determined is obtained from the literature study and the hypothesis carried out by the researcher. Followed by looking for research variables that are suitable for use in conducting this research, each variable that has been determined by the researcher has a very important effect on the suitability of this research. Furthermore, data collection is carried out from the variables that

have been determined and will be analyzed by researchers to get the final answer and report on the results of this study.

This study used a one-group posttest-only design a type of quasi-experimental research design in which the desired results are measured only once. The researcher will explain how to use Six Thinking Hats after which this group will be given a questionnaire given a problem. The purpose of this questionnaire is to see if Six Thinking Hats can be applied by this group. After the completion of data collection, the researcher will process the data that has been taken and see whether Six Thinking Hats can help young people improve several aspects of the Six Thinking Hats variable. The researcher will also measure the desired outcome after the intervention is given. The aim is to evaluate the effect of the intervention.

The data processing technique that the author uses is a statistical technique with the help of the SPSS application starting from the validation test to the t-test. Data processing starts with the validation test and finally using the T-test test. Statistical techniques are used by researchers to process data quantitatively and obtain conclusions from the analysis results.

3. RESULTS AND DISCUSSION

3.1. Aiken V Validation Test

In testing data validation to find out whether the instrument that has been designed is valid or not, researchers validated 4 validators who transferred to the field of sociology, including Teacher Arya, Teacher Dinda, Teacher Maria, and Teacher Syarif, with the results listed that average 0.83 as very valid. In this validation test, researchers use Aiken V validation which is a method of validating a given data ([Khairat, 2022](#)). From the results listed the Six Thinking Hats variable has a very valid validation level, it can be seen from the average results obtained, which is above 0.8 which means it is very valid. So that the instrument can be used for direct data retrieval.

3.2. Normality QQ Plot Test

Based on the results of normality testing with the SPSS application, the results of the Q-Q Plot test are obtained as in **Figure 1**, where the data points are not far from the diagonal line which means the data can be categorized as normal ([Roswirman, 2021](#)).

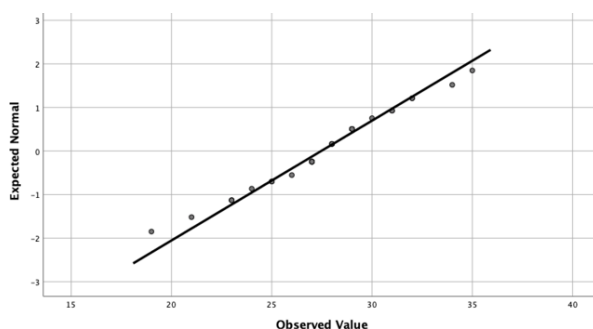


Figure 1. QQ plot test results.

3.3. Homogeneity Test

Based on the output table "Test of Homogeneity of Variances" in **Figure 2**, it is known that the significance value (Sig.) of the Problem-Solving variable in grade 11 students is 0.59. Because the value of Sig. $0.59 > 0.05$, then as the basis for decision-making in the homogeneity test, the basis or guideline for decision-making in the homogeneity test is:

- (i) If the significance value or Sig. < 0.05 , then it is said that the population groups of the data are not equal (not homogeneous).

- (ii) If the significance value of tau Sig. > 0.05, then it is said that the variance of the population group of the data is equal (homogeneous). Thus, in this population, it can be concluded that the variance of data is equal or homogeneous.

Test of Homogeneity of Variances					
		Levene Statistic	df1	df2	Sig.
Problem Solving terhadap Six Thinking Hats	Based on Mean	.285	1	28	.597
	Based on Median	.287	1	28	.596
	Based on Median and with adjusted df	.287	1	27.372	.596
	Based on trimmed mean	.350	1	28	.559

Figure 2. Test of homogeneity of variances.

3.4. Heterokesdasitas: Scatterplot Test

Based on the output of Scatterplots in **Figure 3**, it is known that:

- (i) The spreader data points above and below or around the number 0.
- (ii) The dots do not collect just above or below.
- (iii) The spread of data points does not form a wavy pattern, widens and then narrows and widens again
- (iv) The spread of data points is not patterned.

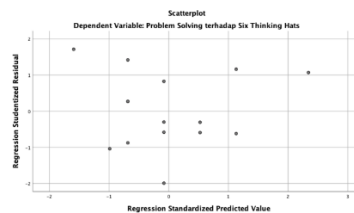


Figure 3. Heterokesdasitas: scatterplot test.

Thus, we can conclude that there is no heteroscedasticity problem until a good and ideal regression model can be fulfilled.

3.5. Hypothesis T-Test

Hypotheses are shown in the following points:

- (i) H0: Six thinking hats are not effective in eliciting problem-solving young generation
- (ii) H1: Six thinking hats are effective in eliciting problem-solving young generation

From the results of statistical testing of one group post-test only in grade 11, a sig number was obtained. 2-tailed 0.001 which means less than 0.05, if the sig.2-tailed number of data is less than 0.05 or 5%, then H0 is rejected and H1 is accepted, so in the context of this study Six thinking hats are effective in bringing up student problem-solving in a case. The results showed that t is -3.818, df is 29, Sig. 2-tailed is 0.001, and the mean difference is -2.533. The results for 95% confidence interval of the difference have values for lower of -3.89 and upper of -1.18.

3.6. Simple Regression Test

From the results of regression tests in grade 11 children at SpInS Interactional school, it was found that Six Thinking Hats can affect problem-solving in the young generation, this conclusion can be drawn from the results of the regression test which showed a result of 0.182 obtained from calculating the R quadrat through the SPSS application. A result of 0.182 can also be read as 18%. Where other results are influenced by other factors where these results can be said to be effective enough to bring out problem-solving in the Young Generation (see **Figure 4**).

Model Summary ^b				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.426 ^a	.182	.119	3.673
a. Predictors: (Constant), Kelas				
b. Dependent Variable: Problem Solving terhadap Six Thinking Hats				

Figure 4. Simple regression test: summary model.

3.7. Six Thinking Hats Analysis of Problem-Solving

After conducting research on grade 11 students at SpInS interactional school. It can be seen from the observations of researchers that students who have been tested with the Six Thinking Hats method found that their problem-solving skills improved and it can be concluded that they can implement Six Thinking Hats such as examples of researchers giving questionnaires containing their problems can be seen that they can solve problems given properly and precisely, During a class observation for example, a student named Harison tries to lead the class in the fair selection of group members. The results of this study also have an impact on the character and mindset of grade 11 students, such as where they can improve their mindset of problem-solving and also they can implement this six thinking hats method for daily use. This study can add new information regarding the six thinking hats analysis, as reported elsewhere ([Kivunja, 2015](#); [Aithal & Kumar, 2017](#)).

3.8. Research Sustainability

The sustainability of this research is as follows:

- (i) Publication of national journals. Thus, this research is useful for the general audience, especially readers and the young generation.
- (ii) Implementation of six thinking hats in other schools, as well as the younger generation. Thus, it can help them raise and improve their mindset of problem-solving. Also, it can be useful in everyday life

4. CONCLUSION

A common thread can be drawn that based on the results of the one-group post-test experiment conducted on grade 11 students at SpInS Interactional School, it was found that six thinking hats can affect the mindset of the problem-solving young generation in the era of globalization. From the results of simple regression testing, it was found that as much as 18% of the young generation's mindsets are influenced by Six Thinking Hats. The rest is influenced by other variables. Also, the results of the t-test hypothesis shows results above 0.05 where these results can prove H1 which means six thinking hats are effective in increasing problem problem-solving young generation. It is hoped that future researchers can develop this research even better, both in terms of subject to research variables that researchers measure, so that this research becomes more perfect, such as the saying "no ivory is not cracked" taka da also perfectly work.

5. ACKNOWLEDGMENT

We thank the guides who have helped us in the preparation of this scientific journal. We are also very grateful to the respondents who helped us with data collection.

6. AUTHORS' NOTE

The authors declare that there is no conflict of interest regarding the publication of this article. The authors confirmed that the paper was free of plagiarism.

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