# THE EFFECTIVENESS OF INFORMATION SERVICES USING THE JIGSAW COOPERATIVE LEARNING MODEL TO INCREASE STUDENT SELF ESTEEM

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**Abstract**

This study aims to test the effectiveness of information services using the jigsaw cooperative learning model to increase student self-esteem. This type of research is Quasi Experiment Design. The sample was selected using a purposive sampling technique. The sample in this study were 60 students who were divided into two classes. The research instrument used was the Likert Scale model, the data were analyzed using the Wilcoxon Signed Ranks Test and the Kolmogorov-Smirnov 2 Independent Samples. The research results show that; (1) There is a significant difference in the self-esteem of the experimental group students before and after participating in information services using the jigsaw type cooperative learning mode, the probability score is below alpha 0.05 (0.000 <0.05), (2) there is a difference in the self-esteem of the group students control before and after participating in information services without using the jigsaw cooperative learning model obtained a probability number below alpha 0.05 (0.000 <0.05), (3) there was a difference in the self-esteem of the experimental group students who were given information services using the cooperative learning type jigsaw with the control group that was given information services without using the jigsaw type of cooperative learning model was obtained at 0.014 or probability below 0.05 (0.014 <0.05), the difference can be seen from the posttest results of the experimental group which are higher than the posttest results of the control group. From these findings it can be concluded that information services using the jigsaw cooperative learning model are more effective in increasing students' self-esteem.

**Keywords:** *Information Services, Jigsaw Cooperative Learning Model, Self Esteem.*

## 1. INTRODUCTION

Every individual has strengths and weaknesses in him, but often individuals only see themselves in terms of weaknesses. Individuals who see themselves as weak often have negative perceptions about themselves and feel that they do not have enough strength or ability to face challenges in life, this can cause low individual self-esteem. Lathifa, Gratitude, Asnah & Nurfarhanah (2023) reveals that individuals have irrational beliefs about themselves, which causes low self-esteem. self esteemis a person's judgment and perception of value, worth, and belief about himself. This involves making positive or negative judgments about one selfbased on beliefs about personal abilities, qualities, and worth. According to Coopersmith (1967) Self-esteem or individual respect for himself can be interpreted as an individual's assessment of his worthiness by showing the extent to which the individual believes in himself, becomes a capable, valuable person, feels significant or significant, believes that he will succeed. Self-esteem is a very important thing for individuals to have.Sukma (2020) that self-esteem is important in one's life. This is supported by opinionsMckay & Fanning (2016) that self-esteem is a very important concept for psychological survival, because self-esteem is an emotional condition that cannot be avoided, without a measure of self-esteem, life becomes very painful, with many basic needs being unfulfilled.

Adolescents who are in a period of growth and development really need self-esteem, because self-esteem reaches its peak during adolescence (Andayani & Afiatin, 1996). When a student at the

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adolescent stage is unable to completely overcome the challenges of change, various psychological, emotional and behavioral consequences can arise which can be detrimental. (Geldard & Geldard, 2011). Changes experienced such as the changes mentioned above related to physical, cognitive systems, emotional situations that occur within students make students think about how they are in their own eyes and in the views of others towards them. The changes experienced resulted in the appearance of shame, feeling worthless, feeling unworthy, and inappropriate for some students. Because change is not experienced simultaneously by all students, so that when there are students who experience it, they will feel that they are different from the others. Sukma (2022) reveals that adolescents see their shortcomings as a weak point that humbles them, not as their uniqueness. This can prevent adolescents from developing positive self-esteem.

Based on the explanation above, in the world of education, especially schools, the quality of student self-esteem needs to get more attention. Self esteem with a good category determines attitudes and personality and is the key to success in life (Gunawan & Setyono, 2007). So to deal with problems related to changes in self, it is important for students to have high self-esteem. Thus, having high self-esteem can prevent students from doing negative things in achieving academic achievement (Refnadi, 2018). In this study, researchers conducted a preliminary study at MTsN 6 Padang. Problems with self-esteem are experienced by students at MTsN 6 Padang City. The researcher conducted an initial survey using a Likert scale questionnaire with 6 items on August 27 2022 of 28 students consisting of 16 female students and 12 male students, with an age range of 12-14 years, the results obtained were; 53.57% of students stated that they were completely useless, 50% of students stated that they felt they were failures, 78.57% of students stated that they felt that someone did not like them, 64.28% of students stated that they felt unattractive like on the other hand, 42.85% of students said they felt ashamed of their situation, 57.14% of students said they lacked confidence in their own abilities.

Researchers conducted interviews with two counseling teachers at MTsN 6 Padang City on August 29 2022, regarding male or female students who were more dominant experiencing low self-esteem. The results of the interviews indicated that female students experienced lower self-esteem more than male students. This was conveyed by the counseling teacher based on the fact that there were more female clients who came to the guidance counselor who said that the problems they experienced included being embarrassed about their body shape, feeling inferior with darker skin color than their other friends, not being confident because their faces had lots of pimples, feeling inadequate happy and so on. However, it is possible that students with male gender also experience low self-esteem. Based on these problems, efforts are needed to increase student self-esteem, because this concerns the future of students. Counseling teachers or counselors need to help students improve their low self-esteem, so students need to gain understanding through counseling services. One of the BK services is an information service. Information services, namely services that intend to provide understanding to interested individuals about various things needed to carry out tasks or desires, or to determine the direction of goals or plans desired (Prayitno & Amti, 2004).

One of the learning models that can be used in information services is cooperative learning. Jacobs & Renandya (2019) explained that cooperative learning is learning that involves students in helping each other learn and helping each other enjoy and become more skilled in the learning process. The main objective in implementing the cooperative learning learning model is so that students can study in groups with their friends by respecting each other's opinions and providing opportunities for other people to express their ideas by expressing their opinions in groups. (Isjoni,

2009). The cooperative learning model also has several techniques or types that can be used, one of the types in the cooperative learning model that researchers use is the jigsaw type. The researcher chose the jigsaw type because it refers to explanationsSlavin, Sharan, Kagan, Lazarowitz, Webb & Schmuck (1985) that jigsaw is a method developed by Aronson, Blaney, Stephan, Sikes, & Snapp in 1978 which aims to facilitate positive interpersonal relationships, between ethnicities between students, to increase self-esteem, and to improve academic achievement. Based on this explanation, it can be concluded that the purpose of the jigsaw was developed, one of which was to increase self-esteem. This opinion is supported Kagan & Kagan (2009) states that this type of jigsaw has a number of positive results. Because in this type of jigsaw each student has a unique contribution in it, this type of jigsaw increases status, self-esteem and each student as an expert. Guidance and counseling have an important role in increasing student self-esteem, one of the efforts that can be done is through information services using the jigsaw type of cooperative learning model. To prove that information services using the jigsaw cooperative learning model can increase self-esteem, it is necessary to do research.

## 2. IMPLEMENTATION METHOD

This study used a quasi-experimental quantitative method with the non-equivalent control group design. In this study there was an experimental group and a control group which were given pretest and posttest. The population of this study were students of class VII and VIII of MTsN 6 Padang, totaling 840, then drawn using the Slovin formula obtained 271 students as a sample, and the sample was selected using a purposive sampling technique which selected 2 classes with the lowest average score. The instrument used was a Likert scale questionnaire with 5 alternative answers, namely: very suitable, suitable, quite suitable, not suitable, very inappropriate. The instrument questions distributed to students were 38 statements.

Based on the results of the calculations that have been carried out, an interval score of 30 is obtained. This interval is the basis for categorizing student self-esteem as shown in table 1 below.

**Table 1** Self Esteem Category Intervals

| Category | intervals | f | % |
|---|---|---|---|
| Very High (VH) | ≥159 | 9 | 3.32 % |
| Height (H) | 129-158 | 29 | 10.70 % |
| Medium (M) | 99-128 | 155 | 57.20 % |
| Low (L) | 69-98 | 70 | 25.83% |
| Very Low (VL) | ≤68 | 8 | 2.95 % |
| **Total** | | **271** | **100 %** |

## 3. RESULTS AND DISCUSSION
### 3.1 Results

The results of the pretest students in the experimental group and the control group can be seen in table 2 below.

**Table 2** Pretest Self Esteem Data of Experiment Group and Control Group Students

| Category | intervals | Experiment | | Control | |
|---|---|---|---|---|---|
| | | F | % | f | % |
| Very High (VH) | ≥159 | 1 | 3,33% | 1 | 3,33% |
| Height (H) | 129-158 | 1 | 3,33% | 0 | 3,33% |
| Medium (M) | 99-128 | 7 | 23,33% | 14 | 46,67% |

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| | | | | | |
|---|---|---|---|---|---|
| Low (L) | 69-98 | 17 | 56,67% | 14 | 46,67% |
| Very Low (VL) | ≤68 | 4 | 13,33% | 1 | 3,33% |
| **Total** | | **30** | **100 %** | **30** | **100 %** |

Based on table 2 regarding the description of student self-esteem before being given treatment, it shows that for the experimental group with a total of 30 respondents, it was found that most students had low self-esteem. This can be seen from the large percentage of 56.67% or 17 students who are in the low category. Whereas for the control group with a total of 30 student respondents, it was found that most students had low and moderate self-esteem. This can be seen from the percentage of 46.67% or 14 students who are in the low category and the percentage of 46.67% or 14 students who are in the medium category. For the average overall result of the experimental group it was 95.03, and for the average overall result for the control group it was 97.1.

**Table 3** Posttest Self Esteem Data of Experiment Group and Control Group Students

| Category | intervals | Experiment | | Control | |
|---|---|---|---|---|---|
| | | **F** | **%** | **f** | **%** |
| Very High (VH) | ≥159 | 15 | 50.00 % | 4 | 13.33 % |
| Height (H) | 129-158 | 8 | 26.67 % | 19 | 63.33 % |
| Medium (M) | 99-128 | 7 | 23.33 % | 7 | 23.33 % |
| Low (L) | 69-98 | 0 | 0.00 % | 0 | 0.00 % |
| Very Low (VL) | ≤68 | 0 | 0.00 % | 0 | 0.00 % |
| **Total** | | **30** | **100%** | **30** | **100%** |

Based on table 3, it can be seen that there was an increase in self-esteem in the experimental group and the control group after being given treatment in the form of information services using the jigsaw type cooperative learning model and information services without using the jigsaw type cooperative learning model. This can be seen from the majority of students experiencing an increase in self-esteem with a percentage of 50.00% or 15 students who are in the very high category. Whereas in the control group it was found that most students experienced an increase in self-esteem with a percentage of 63.33% or 19 students were in the high category. For the average overall result of the experimental group it was 148.90, and for the average overall result for the control group it was 137.7.

In testing the hypothesis, the test was carried out using the Wilcoxon Signed Rank Test to analyze the results of paired observations of the two data whether they are different or not. Meanwhile, for two independent data, the Kolmogorov Smirnov 2 Independent Samples formula is used. In the first hypothesis there is a significant difference in the self-esteem of the experimental group students before and after being given information services to increase self-esteem. Testing this hypothesis was carried out using the Wilcoxon Signed Ranks Test statistical analysis technique using the SPSS version 20.00 program which can be seen in table 4.

**Table 4** Wilcoxon Signed Ranks Test Results of Students' Self Esteem between Pretest and Posttest Experiment Group

| Statistics test | |
|---|---|
| | Post_Exps - Pre_Exps |
| Z | -4.783b |
| asymp. Sig. (2-tailed) | .000 |
| a. Wilcoxon Signed Ranks Test | |
| b. Based on negative ranks. | |

Based on table 4 it can be seen that the probability number Asymp. Sig. (2-tailed) students' self-esteem in the experimental group was 0.000 or the probability was below alpha 0.05 (0.000 <0.05). From these results, $H_0$ is rejected and $H_1$ is accepted thus, the first hypothesis tested in this study can be accepted, that is, there is a significant difference in the self-esteem of the experimental group students before and after being given information services using the jigsaw cooperative learning model. In the second hypothesis there is a significant difference in the self-esteem of the control group students before and after being given information services without using the jigsaw cooperative learning model. Testing this hypothesis was also carried out using the Wilcoxon Signed Ranks Test statistical analysis technique using the SPSS version 20.00 program which can be seen in table 5.

**Table 5** Results of Wilcoxon Signed Ranks Test Student Self Esteem between Pretest and Posttest Control Group

| Statistics test | |
|---|---|
| | Posttest Control - Pretest Control |
| Z | -4.783b |
| asymp. Sig. (2-tailed) | .000 |
| a. Wilcoxon Signed Ranks Test | |
| b. Based on negative ranks. | |

Based on table 5, it can be seen that the Asymp. Sig. (2-tailed) students' self-esteem in the experimental group was 0.000 or the probability was below Alpha 0.05 (0.000 <0.05). From these results, $H_0$ is rejected and $H_1$ is accepted thus, the second hypothesis tested in this study can be accepted, that is, there is a significant difference in the self-esteem of the control group students before and after being given information services without using the jigsaw cooperative learning model. In the third hypothesis, there is a significant difference in the self-esteem of students in the experimental group who are given information services using the jigsaw cooperative learning model, and the control group is given information services without using the jigsaw cooperative learning model. This hypothesis testing was also carried out using the Kolmogorov Smirnov 2 Independent Samples statistical analysis technique using the SPSS version 20.00 program which can be seen in table 6.

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**Table 6** Results of Wilcoxon Signed Ranks Test Student Self Esteem between Pretest and Posttest Control Group

| **Statistics test** | | |
|---|---|---|
| | | *Posttest Self Esteem*Student |
| Most Extreme Differences | absolute | .600 |
| | Positive | .067 |
| | Negative | -.600 |
| Kolmogorov-Smirnov Z | | 2,324 |
| asymp. Sig. (2-tailed) | | .000 |
| a. Grouping Variable: Ex and Post Control Classes | | |

Based on table 6 it can be seen that the probability score of Sig. (2-tailed) students' self-esteem in the experimental group and the control group was 0.000 or the probability was below 0.05 (0.000 <0.05). From these results, $H_0$ is rejected and $H_1$ is accepted, thus the third hypothesis tested in this study can be accepted, that is, there is a significant difference in self-esteem between the experimental group which is provided with information services using the jigsaw type cooperative learning model and the control group which is provided with information services. without using a jigsaw cooperative learning model. In the data description section, it can be seen that the average experimental group is higher than the control group. This difference occurred because the experimental group was given information services using the jigsaw cooperative learning model, while the control group was given information services without using the jigsaw cooperative learning model. So it can be concluded that information services using the jigsaw cooperative learning model are effective in increasing student self-esteem.

### 3.2 Discussion

In the first hypothesis there is a significant difference in the self-esteem of the experimental group students before and after being given information services using the jigsaw type cooperative learning model. Based on research resultsself-esteemstudents in the experimental group before being given treatment were different from students' self-esteem after being given treatment.The average score of students' self-esteem pretest before being given information services using the jigsaw cooperative learning model was 95.03 in the low category. After being given information services using the jigsaw cooperative learning model, students experienced an increase with an average score of 148.90 in the high category. This shows that information services using the jigsaw cooperative learning model can increase student self-esteem. Slavins (1995) emphasizes that cooperative learning can contribute to increasing student self-esteem through several mechanisms. In a cooperative learning environment, students are given the opportunity to interact positively with other group members, share knowledge, make contributions, and help each other. This creates a supportive and inclusive environment where students feel accepted and valued by other group members.

The success of the jigsaw type in increasing student self-esteem is also supported by the results of research conducted bySitepu & Karneli (2022) which shows that the jigsaw technique applied in information services is effective in increasing students' understanding of bullying, this can be seen from the increase in the posttest scores of students who are given information. Results of research conducted Luahambowo (2020) shows that information services using the jigsaw cooperative learning model can improve students' learning skills. Further research results

Simaremare & Thessalonika (2021) shows that the jigsaw cooperative learning method can increase student motivation and learning outcomes in learning the basic concepts of Indonesian in the material for the process of forming vocabulary. Based on testing the second hypothesis, there is a significant difference in the level of self-esteem of the control group students before and after being given information services without using the jigsaw cooperative learning model. The results of the research scores show that students' self-esteem before being given information services is different from after being given information services without using the jigsaw type of cooperative learning model. The average score of students' self-esteem pretest before being given information services without using the jigsaw cooperative learning model was 97.1 in the low category. After being given information services without using the jigsaw cooperative learning model, students' self-esteem increased with an average posttest score of 137.7 in the high category.

The application of information services without using the jigsaw type of cooperative learning model is also good to do, but the implementation process seems monotonous so the results are less than optimal. Slameto (2013) explained that students quickly feel bored, sleepy, passive, and only take notes when the teacher teaches using the lecture method. Therefore guidance and counseling teachers should be creative in delivering information services so that what is conveyed can be understood and understood by students. One method or approach to information services that is good to use is the jigsaw cooperative learning type. Living life and self-development, individuals need a variety of information both for their current lives and for planning their lives in the future. Mastery of various information can be used to prevent problems from arising, solve problems, maintain and develop individual potential and enable the individual concerned to open himself up in actualizing his rights (Tohirin, 2015).

As we know, students need information to be able to help them make decisions in their daily lives, with information to help them make decisions in everyday life, with the information they have can prevent problems, solve problems, develop and maintain their potential and enable students open themselves to actualize their rights. Based on the average score above, it can be seen that the difference between the two experimental and control groups is 11.8. From these results, it is clear that the difference is not too much different. However, the difference is significant, where information services using the jigsaw cooperative learning model are more effective in improving students' learning skills than information services without using the jigsaw cooperative learning model. The results of testing the third hypothesis showed a significant difference in the level of student self-esteem between the experimental group which was given information services using the jigsaw type of cooperative learning model and the control group which was given information services without using the jigsaw type cooperative learning model. So that in this study it was known that the effectiveness of information services using the jigsaw type of cooperative learning model in the experimental group and the provision of information services without using the jigsaw type of cooperative learning model in the control group increased student self-esteem.

## 5. CONCLUSION

Based on research that has been done by researchers at MTsN 6 Padang City, it can be concluded in general that information services using the jigsaw cooperative learning model are effective in increasing student self-esteem. It is known from the increase in student self-esteem, it can be seen from the increase in posttest scores of students who were given information services using the jigsaw type of cooperative learning model which was greater than the posttest scores of students who were given information services without using the jigsaw type of cooperative learning model. The jigsaw type of cooperative learning model is more effective for increasing students' self-esteem than without using the jigsaw type of cooperative learning model.

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