

# The Effectiveness of Content Mastery Services With Jigsaw Type Cooperative Learning Models To Improve Students' Interpersonal Communication Skills

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## Abstract

This study aims to describe the effectiveness of the jigsaw cooperative learning model content mastery service to improve students' interpersonal communication skills. This research design uses a quasi-experimental quantitative approach with the non-equivalent control group design. This type of sampling uses non-random sampling, with the sampling technique using purposive sampling. The sample in this study was 64 students who were divided into two classes who had interpersonal communication skills in the low category. Statistical analysis of the data used in this study is non-parametric statistics. This research instrument uses a questionnaire with a Likert scale data analysis technique that has met the requirements of the research instrument, then the data is analyzed using the Wilcoxon Signed Rank Test and Kolmogorov Smirnov 2 Independent Samples. The results showed that: 1) There were significant differences in the interpersonal communication skills of the experimental group students, before (pretest) and after (posttest) following the content mastery service with the jigsaw type cooperative learning model. The findings of this study, firstly, there is a significant difference in the interpersonal communication skills of experimental group students before and after participating in content mastery services with the jigsaw type cooperative learning model with a probability number below alpha 0.05 ( $0.000 < 0.05$ ). Second, there are differences in interpersonal communication skills of control group students before and after participating in content mastery services with probability numbers below alpha 0.05 ( $0.000 < 0.05$ ). Third, there are differences in students' interpersonal communication skills between the experimental group students who were given content mastery services with a jigsaw type cooperative learning model and the control group which was only given content mastery services. The experimental group and control group students' interpersonal communication skills were 0.000, or the probability was below 0.05 ( $0.000 < 0.05$ ).

**Keywords:** Content Mastery Services, Jigsaw Type Cooperative Learning, Interpersonal Communication Skills.



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## Introduction

Various kinds of problems that exist in the world of education, especially education in Indonesia, one of which is the problem of students regarding interpersonal communication. Prayitno (2012) suggests learning is a process of interaction between educators and students, educators as directors and who facilitate students in living an active learning atmosphere in line with what was conveyed by Maryanti, Zikra, & Nurfarhanah (2012) in essence learning is a communication process between teachers and students. Then if communication and learning activities go well, satisfactory learning results will be obtained. Uchjana (2007) states that communication if applied correctly will be able to prevent and eliminate problems or conflicts between individuals, between groups, between ethnic groups, between nations, and between races, and even fostering the unity and unity of the human beings who inhabit the earth. (Inah, 2015) suggests that interaction is a reciprocal activity, interaction is also referred to as the embodiment of communication, without communication there will be no interaction. Rakhmat (2007) suggests that the word communication is used as a process, message and influence. According to Mufid (2012) communication is the skill of making speeches and compiling arguments to be conveyed to listeners with the aim of giving a positive impression about the speaker, so that listeners will accept what the speaker is saying. This is in accordance with what Zuwirna (2020) stated that studying communication gives a person additional value because by studying communication a person will have understanding, experience, and skills in communicating.

Wood (2013) suggests that interpersonal communication skills are the key to the effectiveness of interactions in everyday life, interpersonal communication is the lifeblood of personal relationships which are meaningful relationships in a professional context. Minarsi, Nirwana, & Syukur (2017) argue that interpersonal communication is important for the success of students in the future, students should be aware of knowing that to be able to solve problems experienced requires knowledge, views, interpretations or positive meanings about interpersonal communication. . Therefore communication is very important in education about the continuity of learning in schools (Nofrion, 2016) suggests the function of communication as the development of knowledge and skills is found in direct learning (direct learning) the teacher acts as a message sender who will convey messages to students and messages received by students will be developed and continued and elaborated individually or in pairs in groups

Zuwirna (2020) stated that communication failures can cause problems for the benefit of mankind, especially if it is associated with very rapid technological developments, including communication technology. Fawri (2021) Humans can only be maintained in their dignity and integrity if the guidance of solidarity, brotherhood can be realized in the form of respect for the values and dignity of all members of society. Devito (2011) suggests interpersonal communication is the process of sending and receiving messages between individuals or groups of individuals, with some effects and immediate feedback. Sahputra, Syahnar, and Marjohan (2016) also stated that interpersonal communication is communication that occurs dialogically, where when a communicator speaks, there will be feedback from the communicant so that there is interaction.

Dockrell, J., Lindsay, G., Roulstone, S., & Law (2014) reported in the online daily *Republika*, a study conducted by better communication research programs throughout 2011 for children aged 5 to 16 years showed that 2.2% of these children have communication difficulties and in

fact, this communication difficulty has increased by 71 percent since 2005. According to the National Institute on Deafness and Other Communication Disorders (NIDCD, 2016) 9% of speech disorders are the most common communication disorders in children aged 3-17 years. (Wendari et al., 2016) research data showing that junior high school students are in the problematic category 57.65% in accordance with what was stated by the American Research Institute RAND which stated that the high school level is a critical period for early adolescents. Berliana (2012) found that students' interpersonal communication occurred in the medium category by 34% and in the low category by 41%. Wood (2013) asked 400 managers in various companies about the main skills that must be possessed by someone who wants to apply for a job in their company and the answers from some of these managers are that the skill that ranks at the top is oral communication. In line with what El Fiah & Anggralisa (2015) stated, the obstacles that cause difficulties in communicating are lack of clarity, making poor choices, choosing and using the wrong media.

Based on the initial data acquisition of students' interpersonal communication skills obtained during the field practice program at MTsN 6 Padang City starting on September 16, 2021, it was obtained from the administration of the General Problem Expression Tool (AUM) to students. It is known that in the field of personal self-problem (DPI) students are not able to express their opinions, with a total of 16%. Then the dominant problem in the group is that social relations (HSO) are not fluent in holding conversations, feel that they are not considered important, belittled, or criticized by others and pay little attention to the interests of others.



Figure 1. Graph of General AUM MTsN 6 Padang

Awalya, (2016) low interpersonal communication skills will make it impossible to build and maintain harmonious relationships. Andriana (2011) the development of speech, language and/or communication has an impact on many things, including school academic achievement, general skills, social relations and work. Wariyanti, Budiono, & Prawita (2018) stated that low interpersonal communication is one of the reasons for the lack of interpersonal communication exercises for students..

Rachmi, H. I., Mugiarto, H., & Saraswati, (2018) stated that content mastery services are considered appropriate in providing a way out of students' limitations in communicating. Prayitno (2012) suggests content mastery service is one of the services in guidance and counseling that allows students to understand and develop good study attitudes and habits, skills and materials that are appropriate to the speed and difficulty of learning. Ahmad (2017) suggests that as a student, they need to understand and master various contents. AW (2011) states that the effectiveness of interpersonal communication is positive if the result of communication is cooperation and if it is negative if the result of the communication leads to a conflict or conflict. Yulianti's research (2020) suggests that if an individual is able to create an effective communication climate, then the individual will have no difficulty establishing

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interpersonal communication, both in the family environment, community environment, and school environment.

Fawri (2021) Good education is education that has good learning strategies and good implementation as well. Suprizono (2009) suggests that the teacher's learning model can help students get information, ideas, skills, ways of thinking, and expressing ideas. Asma (2009) states cooperative learning is based on the idea that students work together in group learning and at the same time each is responsible for the learning activities of group members, so that all group members can master the subject matter well, cooperative learning emphasizes cooperation between students in group. . Huda (2015) argues that cooperative is believed to be effective learning for all students, learning that is an integrative part of the current school paradigm change, learning that is able to encourage the realization of healthy interaction and cooperation among teachers who are accustomed to working separately from others. other. Slavin (2005) suggests cooperative learning to improve student achievement, as well as other positive consequences that can develop inter-group relations, acceptance of classmates who are weak in academics, and increase self-esteem. . Isjoni (2009) states that several techniques exist in the approach to the cooperative learning model, one of which is the jigsaw type, students have gained academic skills in understanding, reading, and group skills to study together. Marning & Lucking (1991) explained that students who were taught the jigsaw type became more like their friends in a learning discipline group.

Based on some of the phenomena that have been stated above, the researchers are interested and trying to conduct a study and examine students' interpersonal communication skills using content mastery services with a jigsaw type cooperative learning model.

## Method

This study uses a quantitative method of Quasi Experiments with the design of The Nonequivalent Control Group Design. In this study, there was an experimental group and a control group who were given a pretest and posttest. The population of this study was 417 students of class VII MTsN 6 Padang and the sample was selected using purposive sampling technique which obtained 2 classes in the lowest category in interpersonal communication skills. The instrument used was a questionnaire with 5 alternative answers for data analysis using a Likert scale. Many of the question instruments distributed to students are 33 statements. In this study using a binary scale model with data analysis using the Wilcoxon Signed Rank Test and Kolmogorov Smirnov 2 Independent Samples with the help of SPSS version 20.

## Result and Discussion

The first hypothesis proposed in the study is "There is a significant difference in the interpersonal communication skills of the experimental group students, before and after participating in the jigsaw cooperative learning model content mastery service. The test was carried out using the Wilcoxon Signed Ranks Test statistical analysis technique and the calculation results were obtained as follows:

**Table 1.** Results of the Wilcoxon Signed Ranks

	posttes - pretest
Z	-4.938 <sup>b</sup>
Asymp. Sig. (2-tailed)	.000

It is seen that the probability number of Asymp. Sig. (2-tailed) interpersonal communication ability of experimental group students is 0.000 or probability is below alpha 0.05 ( $0.000 < 0.05$ ), then  $H_0$  is rejected and  $H_1$  is accepted. Then as for the direction of the differences in the pretest and posttest interpersonal communication skills of the experimental group students as follows.

**Table 2.** Direction of the Difference between Pretest and Posttest Interpersonal Communication Ability of Experimental Group Students

	N	Mean Rank	Sum of Ranks
posttes - pretest	Negative Ranks	0 <sup>a</sup>	.00
	Positive Ranks	32 <sup>b</sup>	528.00
	Ties	0 <sup>c</sup>	
	Total	32	

From the Rank table, it is known that from 32 students there is no decrease, while the positive ranks are known to have increased from pre-test to post-test from 32 students with an average rank of 16.50 and a total rank of 528.00.

The second hypothesis tested in this study was "There are differences in the interpersonal communication skills of control group students before and after participating in content mastery services. Testing was carried out with the same technique on hypothesis 1.

**Table 3.** Results of the Wilcoxon Signed Ranks Test  
Analysis of Differences

	Posttest - Pretest
Z	-4.919 <sup>b</sup>
Asymp. Sig. (2-tailed)	.000

Asymp probability numbers. Sig. (2-tailed) interpersonal communication ability of control group students is 0.000, or probability is below alpha 0.05 ( $0.000 < 0.05$ ) then  $H_0$  is rejected and  $H_1$  is accepted.

The results of the research that was carried out at MTsN 6 Padang were divided into the experimental group and the control group. Specifically, this study was to determine the effectiveness of content mastery services using a jigsaw cooperative learning model to improve interpersonal communication skills. Descriptive data were carried out in each research group (experimental group and control group). In the following, the researchers present the results of research on the effectiveness of content mastery services with a jigsaw type of cooperative learning model to improve interpersonal communication skills.

The directions for the differences between the pretest and posttest of the experimental group students' interpersonal communication skills are as follows:

**Table 4.** The Direction of the Difference between Pretest and Posttest Students' Interpersonal Communication Ability Control Group

	N	Mean Rank	Sum of Ranks
Posttest – Pretest	Negative Ranks	1 <sup>a</sup>	1.00
	Positive Ranks	31 <sup>b</sup>	527.00
	Ties	0 <sup>c</sup>	
	Total	32	

From the Rank table, it is known that from 32 students 1 student experienced a decrease with an average rank of 1.00 and a total rank of 1.00, while the positive ranks showed an increase from pre-test to post-test from 31 students with an average rank of 17.00 and a total rank 527.00.

**Table 5.** Pretest and Posttest Results of Students' Interpersonal Communication Ability Experiment Group and Control Group

Score	Category	Eksperiment				Kontrol			
		Pretest		Posttest		Pretest		Posttest	
		F	%	F	%	F	%	F	%
≥141	Very High (VH)	0	0	0	0	0	0	0	0
114-140	Height (H)	0	0	27	84.4	0	0	8	25
87-113	Medium (M)	10	31.3	5	15.6	8	25	21	65.6
60-86	Low (L)	22	68.8	0	0	24	75	3	9.4
≤ 59	Very Low (VL)	0	0	0	0	0	0	0	0
	Amount	32	100	32	100	32	100	32	100

Based on Table. 1 above, it can be seen that there are differences in interpersonal communication skills in the experimental group before and after participating in the jigsaw cooperative learning model content mastery service. Students at the pretest were in the low category as many as 68.8% (22 students) and the medium category as many as 31.3% (10 students), after being given treatment there was a change which can be seen from the posttest results as much as 84.4% (27 students) were in the high category, 15.6% (5 students) were in the medium category. 32 members of the experimental group who were involved in the calculations experienced an increase in scores from the pretest and posttest or experienced changes after being given the service of mastering the content of the jigsaw cooperative learning model. To see the condition of each student's interpersonal communication ability from the pretest and posttest experimental groups, it can be explained in the picture below.

**Table 6.** Analysis of Kolmogorov Smirnov 2 Independent Samples Understanding of Bullying in Experimental and Control Groups

		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
results of interperson al communica tion skills	Equal variances assumed	3.879	.053	5.370	62	.000	12.531	2.333	7.867	17.196
	Equal variances not assumed			5.370	53.422	.000	12.531	2.333	7.852	17.211

As shown in Table 6, it can be seen that Equal variances not assumed for the two-sided test with a probability number of Sig. (2-tailed) the interpersonal communication ability of the experimental group and control group students 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, namely "There is a difference in the interpersonal communication skills of the experimental group students who were provided with content mastery services for the jigsaw cooperative learning model and the control group which was provided with content mastery services.

In the data description section, it can be seen that the average of the experimental group is higher than the control group. In the category of interpersonal communication skills, the experimental group students are in the high category with no students experiencing a decline and none in the low category, while the control group is in the high category but there are 3 students who are still in the low category and there is 1 student who has decreased score. The difference occurred because the experimental group was given treatment in the form of a jigsaw cooperative learning model content mastery service, while the control group was only given content mastery service. So it can be concluded that the jigsaw type cooperative learning model content mastery service is effective in improving students' interpersonal communication skills.

## Conclusion

Based on the research results obtained and analyzed with statistics and tested the hypothesis, it can be concluded in general that content mastery services with the jigsaw type cooperative learning model are effective for improving students' interpersonal communication skills. Some further conclusions are as follows.

(1) There is a significant difference in the interpersonal communication skills of the experimental group students, before (pretest) and after (posttest) following the content mastery service with the jigsaw type cooperative learning model. (2) There are differences in students' interpersonal communication skills, before (pretest) and after (posttest) following the content mastery service. (3) There are differences in the interpersonal communication skills of the experimental group students who were provided with content mastery services using a jigsaw cooperative learning model and the control group students who were only provided with content mastery services. In the categorization of students' interpersonal communication skills, the experimental group increased in the high category, while the control group was in

the medium category. In the control group also found a decrease in 1 student obtained from the comparison of pre-test and post-test data

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