

# The Application Effectiveness of the Jigsaw-Type Learning Model to the English Students at Hasanuddin University: A Case Study in the Indonesian Academic Course

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**ABSTRACT:** *This research is a classroom action research which aims to measure the effectiveness of the application of the jigsaw type learning model qualitatively and quantitatively. This research is oriented towards measuring the attainment of knowledge and skills as well as the values obtained by students of English Department at Hasanuddin University in the Indonesian Academic course through the application of the jigsaw type learning model. It is expected to help achieve the transformation of language learning on IR 4.0 Curriculum. In its application, it is carried out in two cycles, namely during the midterm and final semester exams. Jigsaw type learning was presented to students seven times for each cycle before giving the test. Productive tests were given at the end of the first cycle and the end of the second cycle. The data obtained were processed analytically and described descriptively. The results showed that learning in the first cycle from the aspects of grammar, writing systematics, target accuracy, information accuracy, and information quality was obtained with an average value of 73.10 which is in the Fairly category. This shows the need for repetition of learning activities in the second cycle. The learning results in the second cycle showed a significant increase in the aspects of grammar, writing systematics, target accuracy, information accuracy, and information quality with an average score of 82.00 being in the Good category. It shows that the jigsaw type learning model is effectively used as an alternative to increase the knowledge and skills and grades of students of English Department at Hasanuddin University in the Indonesian Academic course.*

**KEYWORDS** -effectiveness, jigsaw type, class action

## I. INTRODUCTION

English is a department that is operationally within the scope of the Faculty of Humanities, Hasanuddin University. This department was established on December 11, 1960 and approved by the Minister of Education and Culture through the Decree of the Minister of *PP&K No. 101248/UU*. English Department carries the vision, mission and strategic plan in terms of developing human resources who are able to compete in the world of work nationally, regionally and globally. In an effort to produce reliable, competitive and highly competitive alumni, the English Department continues to innovate in terms of developing a flexible and futuristic curriculum. Now in English Department, Hasanuddin University applies a curriculum that refers to the Indonesian National Qualifications Framework (KKNI) which is associated with IR 4.0. The target to be achieved is to improve the quality of graduates by paying attention to the following aspects: (1) learning outcomes, (2) number of credits, (3) compulsory courses, (4) student-centered learning process, (5) accountability assessment, (6) minimum study period, and (7) the need for a supplementary diploma.

In the curriculum aspect, the English Department has a category of subject groups, namely basic subjects, scientific courses, and skill courses. This group of courses is presented to produce the accountability graduates, who are able to be absorbed in various job fields. One of the courses in the scientific and skill group that must

be programmed by English Department students is Academic Indonesian with the course code 19F01112602. The achievement of targets in this course is the ability of students to share insights and organize scientific ideas logically and systematically, both in writing and orally. As the caretaker of academic life, students of English Department are expected to be able to write and present scientific ideas in the form of standardization of scientific works. Teaching orientation in writing scientific papers according to Semi is in the form of procedures and goals for writing scientific ideas that tell something, provide instructions or direction, explain something, convince, and summarize [1].

Based on the results of preliminary observations in the 2018/2019 academic year, the scores of the Academic Indonesian Course for English Department students are still at an average final score of 67.79. This value shows that the ability of students in organizing scientific ideas systematically related to aspects of grammar, target accuracy, information accuracy, and information quality cannot be said to be "good" so that effective teaching innovation is needed. One reason is the application of learning methods that are not in line with the character of the courses and the content of the material presented in the class. It requires an evaluation of the learning methods applied so far.

The jigsaw type learning method is assumed to have a learning character that is in accordance with the goals to be achieved in the Academic Indonesian Course. The jigsaw type learning model is a collaborative learning model that is expected to develop student creativity so that they are skilled at writing and presenting scientific ideas in the form of scientific works. Based on these thoughts, we conducted research on the effectiveness of the application of the jigsaw-type learning model for students of English Department at Hasanuddin University for Academic Indonesian Course.

## II. RESEARCH METHOD

### 2.1 Academic Indonesian

Academic work is written work that meets scientific requirements. The scientific requirement in question is that the study contains knowledge, uses logical, systematic, objective methods of thinking, and is written using a variety of scientific languages. According to Lyons and Heasley [2], there are two basic principles that must be fulfillment in a scientific work, namely the honesty principle and the clarity principle. The principle of honesty is to convey the results of thoughts that can be accounted for and the principle of clarity is to convey the results of thoughts that are easily understood by readers or listeners. This scientific principle is also supported by Tomskin and Hoskisson [3] who argue that scientific work cannot be formulated in one stage, but must go through several stages, namely conducting pre-writing activities, drafting, revising, and publishing. According to Abbas, et al [4], the message or information conveyed is easy to understand if the writing is formally made using language that is effective, clear, straightforward, and communicative in order to convey the message precisely according to the intent of the writer.

Scientific essays can be realized in the form of reports, papers, theses, dissertations, and others. Among the all types of scientific papers that have been mentioned, the preparation of a paper is one of the requirements for passing students participating in the Academic Indonesian Course. Papers arranged logically and systematically give an indication that the student concerned is skilled in formulating ideas without neglecting aspects of grammar, accuracy of targeting, accuracy of information, and quality of information. The appropriate means used by English Department students in communicating their scientific ideas and as an element of giving an Indonesian style is scientific Indonesian language. Moeliono [5] explained that the scientific variety of Indonesian language has several requirements and features. The characteristics and features of scientific papers can be seen in the following table description.

Academic Work	
Characteristics	Privileges
using a third person perspective with a variety of passive sentences	scholarly
use special terms in accordance with the scientific field	straightforward
using an expository discourse	contains a solid description
avoid emotional expression	contains an objective description
avoid redundant words	contains a consistent explanation

use proper spelling	formal
use effective sentences	starting from the idea
use coherent paragraphs	
using proper symbols and abbreviations	

## 2.2 Classroom Action Research

Classroom action research is associated with identifying and exploring an issue, problem, dilemma, gap or uncertainty in a limited location. According to Elliot [6], classroom action research is a study of certain social situations that is carried out qualitatively and validated based on certain quantitative measures. This research aims to determine the effectiveness of the learning methods used in the classroom. Furthermore, Kemmis and Taggart [7] suggested the stages of classroom action research, namely (1) planning or identifying target areas, and (2) planning or collecting information in a planned manner about the target area, either before, during, or after the treatment was given using instruments as needed.

The goal to be achieved in classroom action research according to Burns [8] is to lead to a planned change, intervention towards an improvement, modification or improvement of conditions in a certain location. In addition, classroom action research aims to solve problems that arise in the classroom and improve the quality of learning situations. The targets of classroom action research in this study were 28 students of English Department at Hasanuddin University for the 2018/2019 period in learning Indonesian Academic Course which aims to improve student knowledge and skills also grades in order to improve the quality of learning in class.

## 2.3 Jigsaw Type Learning Method

Etymologically, jigsaw comes from English, namely "jigsaw" known as puzzle, which is a puzzle that compiles pieces of cooperative learning images. According to Gulo [9], cooperative learning is a learning strategy, where students learn in small groups with heterogeneous levels of cognitive abilities. The philosophy that underlies cooperative learning in education is "homo hominy socius", that is, humans are social creatures. Cooperative learning is a teaching and learning strategy that emphasizes group learning consisting of two or more people. Bosley [10] defines collaborative writing as two or more people who work together to produce a piece of writing in one situation, that is, all members of the group who are directly involved must have and take responsibility for whatever results they have tried and obtained.

Furthermore, cooperative learning using the jigsaw technique according to Arends [11] is a cooperative learning technique consisting of several members in one group who are responsible for mastering part of the learning material and are able to teach the material to other members of the group. So according to Lie [12], jigsaw type learning allows students to be part of the learning space in the classroom so that we think this research can be done on students of English Department at Hasanuddin University. The emphasis is on the process of developing critical, analytical, and constructive thinking. Students are expected to be able to search for alternative solutions and apply standard Indonesian rules in writing scientific papers, especially papers assigned to them.

This research was conducted in two stages, namely the Preparation Stage and the Implementation Stage. The Preparation Stage is checking the number of students, ensuring the classroom atmosphere is adequate for the implementation of learning, providing learning materials. Then the Learning Implementation Stage in the form of jigsaw type learning in class was carried out in two cycles. Each cycle consists of seven meetings. The test is given during the midterm and final semester exams. The research instrument used was a productive test. Productive tests are given at the end of the first cycle to identify deficiencies or weaknesses of students in the scientific work they produce. Furthermore, at the end of the second cycle a test was conducted to determine the increase in learning outcomes obtained by students after implementing the jigsaw type learning model. The work steps taken can be described below.

1. Assign students to write papers whose theme has been determined and guided by the lecturer. This group is called the original group or the jigsaw group (saw tooth). The number of members in the original group adjusts to the number of sections of the paper, namely aspects of grammar, writing

systematics, target accuracy, information accuracy, and quality of information that students will write with due regard to correct writing systematics.

2. Each student is given the task of studying one part of the learning material. All students with the same learning material learn together in groups called the expert group (counterpart group/CG). In the expert group, students discuss the same part of the learning material, and plan how to convey it to their friends when they return to their original group.
3. Each member of the expert group will return to the original group to provide the information that has been obtained or learned in the expert group.
4. After the students discuss in the expert group and the group of origin, each group divides the tasks to the group members with different levels and roles (stratified division of parallel writing). Some students become writers; others become editors, facilitators or team leaders.
5. Next, a presentation is made to each group to present the paper they have made so that the lecturer can equalize perceptions on the learning material that has been discussed.
6. The lecturer gives quizzes to students individually.
7. Lecturers give awards to groups through scores. The award is based on the acquisition of the value of individual learning outcomes improvement from the basic score to the next quiz score.
8. Papers that have been discussed are classified according to aspects of grammar, writing systematics, target accuracy, information accuracy, and information quality. The classification of the results of the application of jigsaw type learning in papers produced by English Department students is as follows:

No.	Mastery Percentage Interval	E-A	Information
1.	90-100	A	Excellent
2.	80-89	B	Good
3.	70-79	C	Fairly
4.	60-69	D	Less
5.	0-50	E	Poor

To determine the improvement of student skills in writing scientific paper assignments, the formula is used from Nurgiantoro is  $S = R / N \times 100$  [13]. S= value, R= total score achieved, N= maximum score of test results. The data obtained were processed analytically and described descriptively.

### III. RESULT AND DISCUSSION

The results of the research were divided into three parts, namely pretest assessment, cycle 1 assessment, and cycle 2 assessments. Comparison of student scores from these three sections is a discussion of the success rate of implementing the jigsaw type learning model among students of the English Department at Hasanuddin University.

#### 3.1 Pretest Assessment

The pretest was carried out to determine students' ability to write scientific papers on Academic Indonesian Course which includes aspects of grammar, systematics writing, accuracy target, information accuracy, and information quality. The results of the pretest can be seen in the following table.

No.	Students	Effectiveness of Papers					Mean
		Grammar	Systematics Writing	Accuracy Target	Information Accuracy	Information Quality	
1.	M01	75	70	75	80	80	76
2.	M02	70	65	65	75	75	72
3.	M03	65	70	75	70	70	70
4.	M04	65	75	70	70	65	70
5.	M05	75	65	70	75	80	73
6.	M06	65	60	75	65	60	65
7.	M07	70	60	65	70	75	70
8.	M08	70	65	70	70	70	69

9.	M09	65	70	65	65	60	65
10.	M10	65	65	60	75	75	68
11.	M11	65	65	75	65	60	66
12.	M12	60	75	65	70	75	69
13.	M13	75	65	65	60	65	66
14.	M14	65	70	70	65	70	68
15.	M15	70	60	65	75	75	69
16.	M16	65	70	65	60	60	64
17.	M17	60	70	70	70	70	68
18.	M18	70	65	65	60	65	65
19.	M19	70	65	60	70	70	67
20.	M20	60	70	75	65	60	66
21.	M21	60	65	60	60	70	63
22.	M22	70	65	70	65	65	67
23.	M23	60	70	60	70	70	66
24.	M24	70	60	65	60	70	65
25.	M25	70	65	70	75	60	68
26.	M26	60	70	65	60	65	64
27.	M27	70	70	65	70	70	70
28.	M28	65	60	70	70	70	69
<b>Average</b>		<b>66.78</b>	<b>63.93</b>	<b>63.22</b>	<b>68.04</b>	<b>70.89</b>	<b>67.79</b>

The mean score obtained by students on this pretest from all aspects of the assessment is 67.79 which means that they are in the Fairly category. Furthermore, the paper's effectiveness value will be explained in terms of grammar, systematics writing, accuracy target, information accuracy, and information quality.

### 3.1.1 Grammar

In the grammar aspect, there were 3 students who scored 75 and 10 students scored 70. The average score obtained was 71.15. Furthermore, there were 10 students who scored 65 and 5 students scored 60. The frequency of grammar aspects can be seen in the following table.

No	Mastery Percentage Interval	Frequency	Percentage (%)	Information
1.	90 – 100	-	-	Excellent
2.	80 – 89	-	-	Good
3.	70 – 79	13	46	Fairly
4.	60 – 69	15	54	Less
<b>Average</b>		<b>28</b>	<b>100</b>	

The table above shows that there are no students who get Excellent and Good categories. Students who get the Fairly category are 13 people (46%) and students who get the Less category are 15 people (54%). The mean students' work result from the grammar aspect was 66.78. These results indicate that the level of grammar application in the Indonesian Academic Course is still in Less category.

### 3.1.2 systematics writing

In the systematic aspect of writing, there were 2 students who got a score of 75 and 10 students got a score of 70. Furthermore, there were 11 students who got a score of 65 and 5 students got a score of 60. The mean score for the systematic aspect of writing is 67.30 which are still in the in the Less category. The frequency of the systematic aspects of writing can be seen in the following table.

No	Mastery Percentage Interval	Frequency	Percentage (%)	Information
1.	90 – 100	-	-	Excellent
2.	80 – 89	-	-	Good
3.	70 – 79	12	43	Fairly
4.	60 – 69	16	57	Less
<b>Average</b>		<b>28</b>	<b>100</b>	

The table above shows that there are no students who get Excellent and Good categories. Students who get the Fairly category are 12 people (43%) and students who get the Less category are 16 people (57%). The mean result of 63.93 explains that the level of application of writing systematics in the Indonesian Academic Course is categorized as Less.

### 3.1.3 accuracy target

In the aspect of targeting accuracy, 5 students got a score of 75 and 8 students got a score of 70. Furthermore, there were 11 students who got a score of 65 and 4 students got a score of 60. The mean score for accuracy target is 63.22 which still in the Less category. The frequency of the aspect of targeting accuracy can be seen in table 5 below.

No	Mastery Percentage Interval	Frequency	Percentage (%)	Information
1.	90 – 100	-	-	Excellent
2.	80 – 89			Good
3.	70 – 79	13	46	Fairly
4.	60 – 69	15	54	Less
<b>Average</b>		<b>28</b>	<b>100</b>	

The table above shows that there are no students who get Excellent and Good categories. Students who get the Fairly category are 13 people (46%) and students who get the Less category are 15 people (54%). The average result is 63.22, which explains that the level of application of writing systematics in the Indonesian Academic Course is categorized as Less.

### 3.1.4 information accuracy

In the aspect of information accuracy, there are 1 student who gets 80, 5 students who get 75, 10 students who get 70, and 6 students who get 65 points, also 6 people who get 60 scores. The accuracy of the information reaches a value of 67.7 or is in the Less category. The frequency of information accuracy aspects can be seen in the table.

No	Mastery Percentage Interval	Frequency	Percentage (%)	Information
1.	90 – 100	-	-	Excellent
2.	80 – 89	1	3,7	Good
3.	70 – 79	15	54	Fairly
4.	60 – 69	12	43	Less
<b>Average</b>		<b>28</b>	<b>100%</b>	

The table above shows that there are no students who get the Excellent category. Students who get the Good category are 1 person (3.7%), students who get the Fairly category are 15 people (54%), and students who get the score in the Less category are 12 people (43%). The average result of 68.04 indicates that the level of application of information accuracy in the Indonesian Academic course is still Less category.

### 3.1.5 information quality

In the aspect of information quality, 2 students got a score of 80, 5 students got a score of 75, 8 students got a score of 70, 5 students got a score of 65, and 8 students got a score of 60. Average score on the aspect of information quality reached a value of 67.9 which is still categorized as Less. The frequency of information quality aspects can be seen in the following table.

No	Mastery Percentage Interval	Frequency	Percentage (%)	Information
1.	90 – 100	-	-	Excellent
2.	80 – 89	2	7.1	Good
3.	70 – 79	13	46	Fairly
4.	60 – 69	13	46	Less
<b>Average</b>		<b>28</b>	<b>100%</b>	



The table above shows that there are no students who get the Excellent category. Students who get the Good category are 2 people (7.1%), students who get the Medium category are 13 people (46%), and students who get the score in the Less category are 13 people (46%). The average result of 70.89 indicates that the level of application of the quality of information in the Indonesian Academic Course is already in the Fairly category.

### 3.2 Cycle 1 Assessment

Cycle 1 assessment is carried out during the midterm exam. At this time, students of English Department have participated in learning Indonesian Academic Course in class for eight weeks by applying the jigsaw learning model. The Cycle 1 assessment was conducted to determine their ability to write scientific papers on the Indonesian Academic Course which includes aspects of grammar, systematics writing, accuracy target, information accuracy, and information quality. The results of this test can be seen in the following table.

No.	Students	Effectiveness of Papers					Mean
		Grammar	Systematics Writing	Accuracy Target	Information Accuracy	Information Quality	
1.	M01	80	75	80	85	80	<b>80</b>
2.	M02	75	70	70	80	80	<b>75</b>
3.	M03	70	75	75	75	75	<b>74</b>
4.	M04	65	75	70	70	65	<b>70</b>
5.	M05	75	70	75	75	80	<b>75</b>
6.	M06	70	70	75	70	65	<b>70</b>
7.	M07	75	65	65	70	75	<b>70</b>
8.	M08	75	75	70	70	70	<b>72</b>
9.	M09	70	75	70	65	70	<b>70</b>
10.	M10	75	75	70	75	75	<b>74</b>
11.	M11	75	75	75	75	70	<b>74</b>
12.	M12	65	75	70	70	75	<b>71</b>
13.	M13	75	65	65	70	75	<b>70</b>
14.	M14	70	70	70	70	70	<b>70</b>
15.	M15	75	70	70	75	75	<b>73</b>
16.	M16	75	70	70	70	70	<b>71</b>
17.	M17	70	70	70	70	70	<b>70</b>
18.	M18	75	75	75	70	70	<b>73</b>
19.	M19	70	75	70	70	70	<b>71</b>
20.	M20	70	75	75	75	70	<b>73</b>
21.	M21	70	75	70	65	70	<b>70</b>
22.	M22	75	75	70	70	70	<b>72</b>
23.	M23	70	70	65	70	75	<b>70</b>
24.	M24	70	70	75	70	75	<b>72</b>
25.	M25	70	75	70	75	70	<b>72</b>
26.	M26	70	70	75	70	75	<b>72</b>
27.	M27	70	75	70	75	75	<b>73</b>
28.	M28	75	70	70	75	75	<b>73</b>
<b>Average</b>		<b>72.14</b>	<b>72.32</b>	<b>71.25</b>	<b>77.14</b>	<b>72.68</b>	<b>73.10</b>

The average score obtained by students on this Cycle 1 test from all aspects of the assessment is 73.10 which means that they are in the Fairly category. Furthermore, the paper's effectiveness value will be explained in terms of grammar, systematics writing, accuracy target, information accuracy, and information quality.

#### 3.2.1 grammar

In the grammar aspect, the average score of students is 72.14. These results explain that the level of grammar application in the Indonesian Academic Course is in the Fairly category.

#### 3.2.2 systematics writing

In the systematic aspect of writing, the average score obtained by students is 72.32. These results explain that the level of application of writing systematics in the Indonesian Academic course is in the Fairly category.

### 3.2.3 accuracy target

In the aspect of accuracy target, the average score obtained by students was 71.25. These results explain that the level of application of writing systematics in the Indonesian Academic Course is in the Fairly category.

### 3.2.4 information accuracy

In the aspect of information accuracy, the average score obtained by students is 77.14. These results explain that the level of application of information accuracy in the Indonesian Academic Course is in the Fairly category.

### 3.2.5 information quality

In the aspect of information quality, the average score obtained by students is 72.68. These results explain that the level of application of the quality of information in the Indonesian Academic course is in the Medium category.

## 3.3 Cycle 2 Assessment

Cycle 2 Assessment is carried out at the end of the semester exam. At this time, students of English Department have taken part in learning Indonesian Academic Course in class for sixteen weeks by applying the jigsaw learning model. The Cycle 2 assessment was conducted to determine their progress in writing scientific papers in the Indonesian Academic Course which included aspects of grammar, systematics writing, accuracy target, information accuracy, and information quality. The results of this test can be seen in the following table.

No.	Students	Effectiveness of Papers					Mean
		Grammar	Systematics Writing	Accuracy Target	Information Accuracy	Information Quality	
1.	M01	80	80	85	85	85	<b>83</b>
2.	M02	80	80	80	80	80	<b>80</b>
3.	M03	80	85	85	85	85	<b>84</b>
4.	M04	85	80	80	80	80	<b>81</b>
5.	M05	85	80	85	85	80	<b>83</b>
6.	M06	80	80	85	80	85	<b>82</b>
7.	M07	85	85	85	80	85	<b>84</b>
8.	M08	85	85	80	80	80	<b>82</b>
9.	M09	80	85	80	85	80	<b>82</b>
10.	M10	85	85	80	85	85	<b>84</b>
11.	M11	85	85	85	85	80	<b>84</b>
12.	M12	75	85	80	80	85	<b>81</b>
13.	M13	80	85	80	80	85	<b>82</b>
14.	M14	80	80	80	80	80	<b>80</b>
15.	M15	85	80	80	85	80	<b>82</b>
16.	M16	85	80	80	80	80	<b>81</b>
17.	M17	80	80	80	85	80	<b>81</b>
18.	M18	85	85	80	80	80	<b>82</b>
19.	M19	80	85	80	80	80	<b>81</b>
20.	M20	80	85	85	85	80	<b>83</b>
21.	M21	80	85	80	80	80	<b>81</b>
22.	M22	85	85	80	80	75	<b>80</b>
23.	M23	80	80	85	80	85	<b>82</b>
24.	M24	80	80	85	80	85	<b>82</b>
25.	M25	80	85	80	85	80	<b>82</b>
26.	M26	80	80	85	80	85	<b>82</b>
27.	M27	80	85	80	85	80	<b>82</b>
28.	M28	85	80	80	85	85	<b>83</b>
<b>Average</b>		<b>81.79</b>	<b>82.68</b>	<b>81.79</b>	<b>81.96</b>	<b>81.78</b>	<b>82.00</b>

The average score obtained by students on this Cycle 2 test from all aspects of the assessment is 82.00



which mean that it is in the Good category. Furthermore, the paper's effectiveness value will be explained in terms of grammar, systematics writing, accuracy target, information accuracy, and information quality.

### 3.3.1 *grammar*

In the grammar aspect, the average score obtained by students was 81.79. These results explain that the level of grammar application in the Indonesian Academic Course obtained by students is in the Good category.

### 3.3.2 *systematics writing*

In the systematic aspect of writing, the average score obtained by students was 82.68. These results explain that the level of application of writing systematics in the Indonesian Academic Course obtained by students is categorized as Good.

### 3.3.3 *accuracy target*

In the aspect of targeting accuracy, the average score obtained by students was 81.79. These results explain that the level of application of writing systematics in the Indonesian Academic Course obtained by students is categorized as Good.

### 3.3.4 *information accuracy*

In the aspect of information accuracy, the average score obtained by students is 81.96. These results explain that the level of application of the accuracy of information in the Indonesian Academic Course obtained by students is categorized as Good.

### 3.3.5 *information quality*

In the aspect of information quality, the average score obtained by students was 81.78. These results explain that the level of application of the quality of information in the Indonesian Academic Course obtained by students is in the Good category.

## 3.4 Comparison of the Scores of Pretest, Cycle 1, and Cycle 2

The comparison of the average value achieved by students of English Department from the scores of pretest, the scores of cycle 1, and the scores of cycle 2 is a measure of the success of the application of jigsaw type learning. The comparison of these three assessment results can be seen in the following table.

No.	Assessment Aspects	Pretest	Cycle 1	Cycle 2
1.	Grammar	66.78	72.14	81.79
2.	Systematics Writing	63.93	72.32	82.68
3.	Accuracy Target	63.22	71.25	81.79
4.	Information Accuracy	68.04	77.14	81.96
5.	Information Quality	70.89	72.68	81.78
	<b>Mean</b>	<b>67.79</b>	<b>73.10</b>	<b>82.00</b>

The results of research on the process and improvement of the skills of English Department students compile scientific papers in the form of papers on the aspects of grammar, systematics writing, accuracy target, information accuracy, and information quality that have been done show that the jigsaw type learning process is able to constantly increase student activity. The increase in the score started from the pretest with the average scores of student activeness is 67.79 which are categorized as Less. Then in the Cycle 1 assessment it increased to 73.10 in the Fairly category. Furthermore, in the Cycle 2 assessment, the students' average scores increased to 82.00 in the Good category.

There are some experiences and new knowledge that students get in the application of jigsaw type learning. Each student is given the responsibility of mastering part of the teaching material and is able to teach the material to other members of the group. Jigsaw type learning emphasizes the process of developing critical thinking that is able to search for alternative solutions and apply standard Indonesian rules in writing and presenting scientific papers, especially papers assigned to students. They look active and enthusiastic about taking part in the Indonesian Academic Course because they are given freedom of expression and interaction,

both vertically between lecturers and students and horizontally between one student and another. They can make the transition efficiently and cooperate with positive interdependence. In addition, they are given the responsibility for completing parts of the learning material that must be known and conveying the material to other group members.

The jigsaw-type learning looks very fun because at the end of the lecture students are given an award by the lecturer for the scientific work that has been produced. The award is a form of appreciation in the form of an assessment score. The assessment score is based on the acquisition of a value for increasing learning outcomes, both individually and in groups.

#### IV. CONCLUSION

The application of jigsaw type learning is one of the learning methods that can motivate students to get better lecture results. This is marked by the enthusiasm and activeness shown by them in the learning process to write scientific papers. In addition, the jigsaw type of learning model makes students able to interact socially intensively as part of the learning process carried out.

The application of the jigsaw type learning model in the Indonesian Academic course for English Department students has increased. Indications of an increase in learning outcomes can be seen in the mean scores achieved by students in the two cycles which differ significantly. Cycle 1 assessment reaches an average value of 73.10 which indicates that the value obtained is in the Fairly category. Then, cycle 2 assessment reaches an average scores of 82.00 which indicate that the value obtained is in the Good category. The increase from the Fairly to Good category shows that student learning outcomes after applying the jigsaw type learning model can get better results. The average percentage of student activeness in cycle 1 was 78%, and then in cycle 2 it increased to 90%. Thus, the jigsaw type of learning model can be concluded as an effective alternative to increase the knowledge and skills and grades of students of English Department at Hasanuddin University in the Indonesian Academic Course.

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