

# PROCEEDING

Seminar Nasional Inovasi dan Teknologi Informasi

## SNITI 2015

**“Pemberdayaan Kearifan Lokal Melalui Inovasi Teknologi Informasi  
Guna Terciptanya Pengembangan Potensi Wilayah di Daerah”**

Diorganisasi oleh :



Didukung oleh :





# PROSIDING

Seminar Nasional Inovasi dan Teknologi Informasi 2015  
(SNITI 2015)

Tema:

"Pemberdayaan Kearifan Lokal Melalui Inovasi Teknologi Informasi  
Guna Terciptanya Pengembangan Potensi Wilayah di Daerah"

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Toledo Inn, Ambarita-Samosir, Sumatera Utara

Editor : Marzuki Sinambela

Penyelenggara:



BADAN PERENCANAAN PEMBANGUNAN DAERAH (BAPPEDA)  
KABUPATEN SAMOSIR



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## KATA PENGANTAR

Inovasi Teknologi Informasi merupakan salah satu teknologi unggulan yang menentukan masa kini dan masa depan umat manusia, Teknologi Informasi (TI) semakin penting untuk dikuasai pemahaman, pengetahuan, pemanfaatannya, serta penciptaannya. Kaitannya yang erat dengan berbagai sektor ekonomi, pariwisata, pendidikan, sosial budaya, pertanian, perikanan, dan wirausaha terutama untuk sektor tersier dan kwarter, menempatkan TI sebagai komoditi strategi dalam pembangunan nasional. Ada negara yang meluncurkan konsep pembangunan nasionalnya yang berisikan IT-led development, dimana TI bukan hanya sebagai perangkat pendukung tetapi telah meningkat menjadi penggerak utama mekanisme pembangunan seluruh sektor ekonomi nasional.

Bertolak dari sisi pemanfaatan TI, selain dimaksudkan untuk memacu tumbuhnya penguasaan TI, sasaran utamanya adalah pemanfaatan yang berdayaguna, berhasilguna, ekonomis, berkualitas, serta bertanggungjawab. Sasaran ini hanya dapat tercapai jika terjalin hubungan yang serasi di antara pelaku-pelaku yang terkait kerjasama yang terkoordinasi.

Tujuan utama dari seminar ini adalah:

1. Mendapatkan informasi terkini tentang masalah dan penelitian dibidang inovasi teknologi informasi.
2. Mengetahui sejauh mana outcome Teknologi Informasi pada pengembangan potensi wilayah di daerah.
3. Untuk memberikan pemahaman kepada Pemerintah Daerah, masyarakat umum, kalangan bisnis, dan mahasiswa tentang fenomena **Teknologi Informasi**.
4. Sebagai perwujudan partisipasi terhadap perkembangan Teknologi Informasi di Indonesia, khususnya di **Kabupaten Samosir**.

Dalam Seminar Nasional Inovasi dan Teknologi Informasi (SNITI) 2015 ini topik-topik makalah diperluas terkait inovasi dan teknologi informasi dibidang pariwisata, pendidikan, sosial budaya, pertanian, perikanan, dan wirausaha. Selanjutnya, para penulis/pemakalah diundang untuk memasukkan makalah dengan topik sebagai berikut (tapi tidak dibatasi hanya pada topik-topik ini):

1. Sistem Informasi, Sistem Cerdas, Teknologi Informasi dan Multimedia
2. Inovasi Pembelajaran, Sistem & Kebijakan Pendidikan
3. Instrumentasi, Material, dan Geofisika
4. Matematika, Statistika, dan Riset Operasi
5. Biologi, Kimia, Fisika dan Bioteknologi
6. Kedokteran dan Kesehatan Masyarakat
7. Pengelolaan Sumber Daya Alam dan Lingkungan
8. Biomassa dan Energi Terbarukan
9. Agroindustri, Agribisnis, Agroteknologi dan Ketahanan Pangan
10. Teknologi Pertanian dan Teknologi Industri
11. Mekanika, Elektronika dan Rekayasa Infrastruktur
12. Hukum dan HAM
13. Ekonomi

Seminar ini merupakan sarana diskusi ilmiah, komunikasi dan pertukaran informasi bagi para akademisi, peneliti, praktisi, pemerintah dan stakeholder lainnya untuk pengembangan inovasi dan teknologi informasi. Panitia SNITI 2015 menerima Extendee Abstrak sebanyak 75

hasil penelitian dari peneliti, guru, mahasiswa dan dosen dari berbagai perguruan tinggi Negeri dan Swasta antara lain :Universitas HKBP Nommensen Medan, BMKG Wil 1 Medan, STMIK Budi Darma Medan, Universitas Trisakti Jakarta, STMIK Kaputama Binjai, Universitas Sisingamangaraja XII Medan, Universitas Prima Medan , STMIK KHARISMA Makassar Universitas Atmajaya Yogyakarta, LP3I Medan, Universitas Negeri Malang, Universitas Sumatera Utara, BMKG Wilayah I, STMIK RAHARJA Tangerang, Universitas Muhammadiyah Ponorogo, Universitas Kristen Satya Wacana Salatiga, UIN SGD Bandung Fakultas Sains dan Teknologi, Univeristas Kristen Satya WacanaSalatiga, UNIMED, 'Unsri, Politekn Negeri Benggalis, IT DEL Tobasa.

Selamat melaksanakan rangkaian kegiatan SNITI 2015, semoga bermanfaat tidak hanya bagi peserta, tetapi juga untuk kemajuan pembangunan di daerah yang secara langsung dan tidak langsung dapat berkontribusi untuk meningkatkan kemajuan dan kecerdasan, serta kemakmuran dan kesejahteraan bangsa Indonesia.

Samosir, 5 September 2015  
Panitia Pelaksana  
Forum Ihan Batak



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## KATA SAMBUTAN BUPATI SAMOSIR

Kabupaten Samosir merupakan kabupaten hasil pemekaran dari Kabupaten Tobasa, sesuai Undang-Undang Republik Indonesia Nomor 36 Tahun 2003 tentang Pembentukan Kabupaten Samosir dan Kabupaten Serdang Bedagai di Provinsi Sumatera Utara. Wilayah seluas 2.069,05 km<sup>2</sup> terdiri atas 1.444,25 daratan (Pulau Samosir dan sebagian wilayah Pulau Sumatera) dan 624,80 km<sup>2</sup> danau. Pulau Samosir yang dikelilingi Danau Toba menjadi sebuah ciri khas yang memiliki keindahan tersendiri.

Kondisi tanah yang ekstrim yakni berbukit dan berbatuan serta curaman menjadi tantangan tersendiri bagi pemerintah daerah untuk menata program strategis dalam mensejahterakan masyarakatnya.

Keindahan alam dan keunikan budaya serta peninggalan situs-situs budaya dan sejarah di Kabupaten Samosir diyakini menjadi modal utama yang dapat meningkatkan kesejahteraan masyarakat. Dengan pertimbangan itu, pada Rencana Pembangunan Jangka Menengah Daerah (RPJMD) 2006-2010, Pemerintah Kabupaten Samosir menetapkan visi Samosir Menjadi Kabupaten Pariwisata Tahun 2010 Yang Indah, Damai dan Berbudaya dengan Dukungan Agribisnis yang Berwawasan Lingkungan Menuju Masyarakat yang Lebih Sejahtera dan pada RPJMD 2011-2015 ditetapkan visi Samosir Menjadi Daerah Tujuan Wisata Lingkungan Yang Inovatif 2015. Dan pada Rencana Jangka Panjang Daerah (RPJPD) 2011-2025, Pemerintah Kabupaten Samosir menetapkan visi: Samosir menjadi tujuan wisata internasional 2025. Sebagai kabupaten destinasi wisata, pada tahun 2014, Samosir telah mencanangkan "*Samosir Visit Years*" dengan tagline : Samosir Negeri Indah Kepingan Surga. Sebagai kabupaten yang baru, kabupaten Samosir perlu sentuhan-sentuhan ilmiah dalam mengkaji dan menggali potensi yang ada sehingga dapat dimanfaatkan untuk kepentingan bersama.

Pemerintah Kabupaten Samosir menyambut baik sekaligus mengapresiasi atas terselenggaranya Seminar Nasional Inovasi Teknologi dan Informasi (SNITI) 2014 di Kabupaten Samosir, dan melaksanakan kembali SNITI untuk tahun 2015, yang membahas tentang perkembangan Teknologi Informasi (TI).

Inovasi Teknologi Informasi merupakan salah satu teknologi unggulan yang menentukan masa kini dan masa depan umat manusia, Teknologi Informasi (TI) semakin penting untuk dikuasai pemahamam, pengetahuan, pemanfaatannya, serta penciptaannya. Kaitannya erat dengan berbagai sektor ekonomi, pariwisata, pendidikan, sosial budaya, pertanian, perikanan, dan wirausaha.

Kegiatan ini telah mendukung visi Kabupaten Samosir dan telah mensukseskan tahun kunjungan wisata Samosir (Visit Samosir Year) serta juga sebagai salah satu bukti bahwa di Kabupaten Samosir layak dilaksanakan seminar nasional.

Diharapkan kegiatan ini berjalan dengan baik dan bermanfaat bagi masyarakat Samosir dan hasil seminar dimaksud terimplemetasi dengan baik.

**Bupati Samosir**

**Ir. Mangindar Simbolon, MM**

## KEYNOTE SPEAKER:

1. PROF. YOUNG SUK KWON (PUSAN NATIONAL UNIVERSITY, KOREA)
2. PROF. DR. IR. BAMBANG SUBIYANTO, M.Agr (DEPUTI JASA ILMIAH, LIPI)
3. PROF. DR. SYAWAL GULTOM (REKTOR, UNIVERSITAS NEGERI MEDAN)

## REVIEWER

- ❖ Prof. Motlan ,M.Sc.,Ph.D (UNIMED)
- ❖ Prof. Bornok Sinaga,M.Pd (UNIMED)
- ❖ Prof. Herbert Sipahutar,M.Sc (UNIMED)
- ❖ Prof. Maidin Gultom, MH (UNIKA)
- ❖ Arjon Turnip, Ph.D (LIPI)
- ❖ Dr. Poltak Sihombing, M.Kom (USU)
- ❖ Dr. Zakarias Situmorang, M.T (UNIKA)
- ❖ Dr. Naeklan Simbolon.,M.Pd (UNIMED)
- ❖ Dr. Mariati Purnama Simanjuntak .,M.Si ( UNIMED)
- ❖ Dr. Ir. Sumihar Hutapea, MS (UMA)
- ❖ Dr. Himsar Ambarita, (USU)
- ❖ Dr. Tumiur Gultom,MP (UNIMED)
- ❖ Dr. Haposan Sialagan, MH (UHN)
- ❖ Ir. Parulian Simanjuntak MA., Ph.D( UHN)
- ❖ Dr. Betty Marisi Turnip, M.Pd (UNIMED)

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# SUSUNAN PANITIA

## *Penasehat*

1. Bupati Samosir
2. Prof. Dr. Syawal Gultom (Rektor Unimed)
3. Prof. Bornok Sinaga, M.Pd (Unimed)

## *Penanggungjawab*

: Dr. Zakarias Situmorang., M.T (Ketua Forum IHAN-BATAK)

## *Pengarah*

1. Dr. Arjon Turnip (LIPI)
2. Dr. Tumiur Gultom, S.P., M.P (Unimed)
3. Janner Simarmata, S.T., M.Kom (Unimed)

## *Organizing Commettee*

### *Ketua*

: Tonni Limbong., M.Kom

### *Wakil Ketua*

: Mardi Turnip., M.Kom

### *Sekretaris*

: Marzuki Sinambela, S.Kom, M.T

### *Bendahara*

: Dr. Naeklan Simbolon., M.Pd

### *Sekretariat*

: Paska Marto Hasugian., M.Kom

Sinar Sinurat., ST., M.Kom

Frikson Purba., S.Si., M.Pd

Dedi Holden Simbolon., S.Si., M.Pd

### *Sie Program dan Acara*

: Dr. Mariati Simanjuntak., M.Pd

Dr. Betty Marisi Turnip, M.Pd

### *Sie Persidangan /Seminar*

: Nora Susanti., SSi, M.Sc., Apt

Kammer Sipayung., M.Pd

### *Sie Akomodasi*

: Ir. Rolan Siregar., M.P

Joen P. Purba., S.Pd

### *Sie Perlengkapan*

: Alex Rikki Sinaga., M.Kom

### *Sie Publikasi dan Dokumentasi*

: Rijois Erwin Saragih., ST., MA

Seven Nainggolan., S.Kom

### *Sie Kerjasama*

: Sanggam Gultom., S.Kom., S.Si., M.Si



# SUSUNAN ACARA SEMINAR NASIONAL INOVASI DAN TEKNOLOGI INFORMASI - II 2015

**“PEMBERDAYAAN KEARIFAN LOKAL MELALUI INOVASI TEKNOLOGI INFORMASI  
GUNA TERCIPTANYA PENGEMBANGAN POTENSI WILAYAH”**

PUKUL	ACARA	KETERANGAN
<b>4 SEPTEMBER 2015</b>		
14.00 - 22.00	Registrasi Peserta/Kedatangan Peserta	Panitia
<b>5 SEPTEMBER 2015</b>		
07.30 - 08.00	Registrasi Peserta	Panitia
08.00 - 08.30	Pembukaan acara Seminar Nasional Inovasi Teknologi Informasi (SNITI) Sambutan-sambutan	BAPPEDA Samosir
	Sambutan Ketua Forum Ihan Batak	Ketua Forum Ihan Batak
	Laporan Ketua Panitia	Kepala BAPPEDA Samosir
08.30 - 09.00	”Kata Sambutan Bupati Samosir”	Bupati Samosir
09.00 -09.30	Coffe Break	Panitia
09.30 -10.15	“Membangun Model Inovasi Teknologi Informasi dalam Seni dan Budaya”	Prof. Young Suk Kwon (Pusan National University, Korea)
10.15-10.30	Tanya Jawab	Moderator (Arjon turnip)
10.30 - 11.15	“Pemamfaatan Inovasi dan Teknologi Informasi dan kendala yang dihadapi Pemerintah dan masyarakat dalam membangun Wilayah”	Prof. Dr. Ir. Bambang Subiyanto, M.Agr (Deputi Jasa Ilmiah, LIPI)
11.15-11.30	Tanya Jawab	Moderator (Tumiur Gultom)
11.30-12.15	“Implementasi Inovasi dan Teknologi Informasi Dalam Pembangunan Pendidikan Didaerah, Tantangan dan Peluang Di Era Globalisasi”	Prof. Dr. Syawal Gultom, M.Pd (Rektor UNIMED)
12.15-12.30	Tanya Jawab	Moderator (Kamer Cipayung)
12.30-13.30	Istirahat, sholat, dan makan siang Hiburan Musik	Sie Acara dan MC, Si Konsumsi/ Perlengkapan
13.30 -18.00	Seminar Pararel	Panitia
19.00 - 20.00	Penutupan	Kepala BAPPEDA Samosir
<b>6 SEPTEMBER 2015</b>		
08.00-12.00	Field Trip	Panitia

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## JIGSAW EFFECT OF LEARNING STRATEGY AND MOTIVATION ON STUDENTS' ACHIEVEMENT IN ENGLISH OF PGSD FIP UNIMED

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### ABSTRACT

This study aims to determine the effect of learning strategies and motivation to learn English results PGSD students FIP UNIMED. The research sample totaled 69 students. The instrument used in this study there was a test and observation. Results of the study are as follows: 1) the results of English learning students who obtain a type of cooperative learning strategies Jigsaw higher than the learning outcomes of students who obtain expository learning ; 2) the results of English learning students who have high motivation is higher than the results of English learning students who have low motivation. 3) there is an interaction between learning strategy and learning motivation of students who give different influence on the results of learning English. It can be concluded that the jigsaw learning strategies can improve student learning outcomes and motivation can also give effect to the results of learning English.

Keywords: jigsaw learning strategy, motivation, learning outcomes, English

### INTRODUCTION

Globalisasi process continues in accordance with the development of science and technology. Such conditions require people to be able to have the ability to obtain the information needed. Developments in all aspects of community life requires the ability to adapt in order not to lag behind the development of civilization. In the face of the development of science and technology and the information, each institution should produce competent human resources field. At primary school, the teacher acts as a class teacher, in this case including PGSD students who later became a teacher in primary school need to be addressed with a solid knowledge and skilled English speaking. PGSD students as prospective primary school teachers in charge of preparing, designing and teaching subjects in primary schools, including English. Therefore, it needs to be addressed with the mastery of the English language, to be able to anticipate the development of science and technology.

Learning is done in the classroom using the lecture method, question and answer and administration tasks. But after learning the results seen are still far from the expected. According to Tarin (1995: 22) language skills have four very fundamental aspects, namely: listening skills (listening), speaking (speaking), writing (writing), reading (reading). But in fact there are many things that do not support the development of the four skills. The first factor relates to the students themselves. students do not have a high motivation to learn, so students are considered English lesson complementary, not critical, and is not a national language. As a result, students do not attend classes well in class.

The second factor relates to the lecturer of English is still lacking using varied methods and the methods used are still too monotonous. Thus students

were not interested in these subjects that do not speak English properly. Lack of given to subjects in English is also one of the factors that make the students do not speak English. To overcome these problems need to be tailored learning strategies that can improve the learning outcomes of English PGSD FIP UNIMED cooperative learning strategies with the title "Effect of jigsaw Learning Strategies and Motivation on English Learning Outcomes Students PGSD FIP UNIMED"

Application of Cooperative Learning strategies implemented Jigsaw mode for improvement in English learning courses PGSD FIP Unimed. Implementation of this strategy been selected type of Jigsaw Cooperative Learning strategies to make students more active. According Surakhmad (1986) study is the knowledge, understanding, understanding of concepts and new skills, and attitude formation of positive actions or behavior. Changes in behavior caused by the accretion of experience or knowledge gained after learning process. So there is the added value of the experience of previous

According to Lie, A (2007: 70) jigsaw is to increase the students' sense of responsibility for their own learning and the learning of others. Students and students not only learn about the material being taught but it should be distributed to members of other groups. Teachers play a role to facilitate and motivate the members of the expert group to be easy to understand the material given. Once the discussion is finished, the members of the group then returned to the home group and teaches at a friend sekelompoknya what has been obtained during the meeting at the expert group. The group of experts should be able to share the knowledge acquired during a discussion in expert groups, so that the knowledge received by each member of the origin group.

Santrock (2007: 188) says that the jigsaw classroom is a classroom where students from many different



cultural backgrounds are asked to work together to do some different part of some thing duty to achieve the same goal. Based on the above, it can be concluded that cooperative learning jigsaw is a learning model that can improve the independence of the student and foster a sense of mutual respect among their peers both in learning and in everyday interactions.

Motivation can be a force which is defined as the power contained within the individual, which causes the individual to act or bebuat. According Purwanto 2007: 71 Motivation is the driving force of the efforts being constituted to influence a person's behavior that he was moved to act to do something so as to achieve a particular result or goal. Based on the above opinion can be concluded that a person's motivation is the driving force in driving behavior to learn so as to achieve the expected results. Suryabrata (2011: 70) says motivation is a state in the person of someone who encourages people to undertake certain activities in order to achieve something purposes. A person who has motivation in learning can usually be seen from behavior that shows spirit and persistence in learning activities, and are not easy to give up. According Sardiman (2010: 83) some of the characteristics of motivation that is diligent and tenacious in the face of the task, showing high interest, self-sufficient, able to maintain and adamant, desire to learn, confident, creative learning and pleasure in the challenge.

## METHODS

The experiment was conducted in semester III in PGSD FIP UNIMED, Jln. William Alexander. V Medan Pasar Real time implementation began in March 2015 s / to May 2015. In this study, quasi-experimental research method is used to determine the

extent of the influence of the independent variable and the dependent variable. This experiment carried out by manipulating the independent variables name cooperative learning and expository. The design study is a 2x2 factorial design experiment, meaning the study only involves two levels: 1) factors jigsaw cooperative learning strategies and expository 2) learning motivation high and low. To see the difference in motivation obtained using instrument using observation sheet

The population in this study were all student PGSD Unimed second semester of the school year 2014/2015. Total population is 250 people. Of the total population over the subjek randomly up to two classes totaling 69 people. Random sampling with lottery method. The instruments are made to the data mengumpulkan that instrument tests and observasi. Before the test results to learn, first tested to obtain valid instrument (Arikunto, 1998). Trial instrument aims to obtain measurement tool actually measure through the netting accurate data so that the conclusions drawn in accordance with reality. To test the KR20 reliabelitas test used adapted from Stanly and Hopkins (1981).

## RESULTS AND DISCUSSION

### Research Hypothesis Testing

Hypothesis test used in this study is two-lane ANOVA with SPSS 22.0, namely, test univariate general linear models. For the data obtained, where the number of students as samples in the low category as many as 33 people and high category is 36 people. This group division is based on student motivation. Description of the test results with SPSS 22.0 to test the hypothesis can be seen in Table 1.

Table 1. Hypothesis Testing  
Tests of Between-Subjects Effects  
Dependent Variable: n gain

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	2,168 <sup>a</sup>	3	,723	18,861	,001
Intercept	19,398	1	19,398	506,146	,000
model	,890	1	,890	23,235	,000
kelompok	,651	1	,651	16,999	,000
model * kelompok	,631	1	,631	16,468	,000
Error	2,491	65	,038		
Total	23,978	69			
Corrected Total	4,660	68			

a. R Squared = ,465 (Adjusted R Squared = ,441)

- 1) The first hypothesis and reject Ho Ha received. Ie there are differences in learning outcomes (post-test) students in the subject of English. It is seen from the price sig. (learning model) <of  $\alpha$  (ie, sig. = 0.00 <  $\alpha$  = 0.05).
- 2) The second hypothesis is to accept and reject Ho Ha. Namely, there are differences in learning outcomes of students who have low motivation and motivation category higher category. It is obtained from the output table ANOVA calculation. It is seen from the price sig. (intelligence) <of  $\alpha$  (ie, sig. = 0.00 <  $\alpha$  = 0.05).
- 3) The third hypothesis is accept and reject Ho Ha. Ie there is no interaction between learning strategy that cooperative learning strategies and expository jigsaw with the level of motivation in improving learning outcomes logged. It is obtained from the calculation of the output table ANOVA two lanes on the sig. (models \* group) is 0.00 compared with less significant level  $\alpha$  = 0.05. Price sig. (models \* group) < $\alpha$ .

## DISCUSSION

### Students Who Taught By Type Jigsaw Cooperative Learning Strategies and Learning Strategies Expository.

Cooperative learning strategies jigsaw is a teaching that guides students to think, able to solve the problem, have the skills to work together in groups. Jigsaw cooperative learning strategies in practice the implementation of education, familiarize students facing problems and practice to overcome these problems. Jigsaw cooperative learning objectives is to equip students with the knowledge, skills, and experience that can be applied in everyday life.

Expository teaching strategy concerned with the presence of the lecturer in the classroom and learning interactions that have occurred in both directions between faculty and students. It is possible to use various sources of learning or instructional media, but the design and use in general is a lecturer. Students are not challenged to explore, discover, analyze, interpret and assess the acquired information or findings. Interaction generally takes place in the classroom, so the lack of understanding the real situation on the ground.

Results of the study showed that for the values obtained in the pretest to the number of students in the experimental class 36 57.57 lower than the control class pretest score 58.24. After being given the treatment with different learning strategies in sample classes, namely the control class was taught with classroom learning strategies expository and experimental class taught by jigsaw cooperative learning strategy, learning outcomes postes values obtained for the class taught by 74.53 expository learning strategies and classroom taught by cooperative learning strategies jigsaw 78.68. That is, the learning outcomes of students with cooperative learning strategies jigsaw-type better improvement (23.11) compared with a class taught by expository strategy (16.29).

Furthermore, to test the hypothesis, the value of n-gain first had normal distribution and homogeneous as a prerequisite for further testing. To test for normality and homogeneity, the price sig.  $\geq \alpha$ . With the price of  $\alpha = 0.05$ . From the results obtained by normality test sig prices. for n-gain value, the price sig. low and high groups expository models and cooperative jigsaw was 0.51, 0.83, 0.66, 0.37. As for testing homogeneity, the price sig. Value of 0.32. Statistical test result with independent sample test to test the ability of students beginning is the same, seen from the price sig.  $> \alpha$ . Where, sig, was 0.83 at the significant level  $\alpha = 0.05$ . Meanwhile, To test differences in student learning outcomes postes there are differences in student learning outcomes in both learning strategies. Seen from the price sig.  $< \alpha$ . Where, sig, was 0.04 at the significant level  $\alpha = 0.05$ . Means  $H_0$  is rejected and accept  $H_a$ . This means that there are differences in student learning outcomes of

the second sample with different learning strategies. That is, the learning outcomes of students with cooperative learning strategies jigsaw higher than expository teaching strategy.

### Students Who Have Low and Motivation Motivation Category Category High Through Learning Strategy.

Description of the data obtained, the average value of the control class motivation experimental class 74.30 and 74.00. Wherein, the number of students for each sample group is 36 people for classroom control and 33 people for the experimental class. From the data will be obtained categorization low and high groups on each sample. Categorization is based on the average value of the two classes of samples, that is, if the value of the average motivation  $\leq$  grade sample used as a low category group, and the rest is high category. For the category of low motivation control class numbered 17 people and 19 people with a high average value of 81.07. While the experimental class, lower class 17 people and 19 people high.

To see whether there is influence of motivation, it is seen from the tests of between-subjects effects. Retrieved price sig. 0,000 at significant level  $\alpha = 0.05$ . Price sig.  $< \alpha$ , meaning that there is influence of motivation through learning strategies to improve student learning outcomes. While the Scheffe test also showed the influence of each group sample with high and low for the categorization motivation through learning strategies to improve student results in the subjects English

### Interaction between Cooperative Learning Strategies and Expository jigsaw type with Motivation In Improving Learning Outcomes

The last test in this study was to look at the interaction between learning and motivation strategies applied in this study. the learning outcomes of students. From the description of Antam data obtained, the number of students as a group sample with low category for the motivation of the 36 people, 17 people came from the low category motivation experimental group and 19 classes of grade control sample group. For a number of students to study samples motivation high category amounted to 33 people, as many as 16 people from the experimental class with motivation tinggi and 17 categories of class dick.

Results of tests of between-subjects effects indicates that, the price sig. (models \* group) 0,000 at significant level  $\alpha = 0.05$ . While the univariate GLM test showed that the price sig. (models \* category) 0,000 at significant level  $\alpha = 0.05$ . Testing criteria is, if the price sig.  $\geq \alpha$ , concluded that there are interactions between motivation and learning strategies on student learning outcomes. Under the



terms of these tests, it was concluded there was an interaction between the type of cooperative learning strategies and expository jigsaw with motivation in improving student learning outcomes in the subjects of English.

With this interaction, which means both learning strategy jigsaw cooperative learning strategy and expository applied to classes with high motivation and low categories have the same contribution in influencing the value of the results of students learning English. This means that although the type of jigsaw cooperative learning strategies better, does not mean that the strategy is not good expository. Because both provide role in influencing student learning outcomes.

#### CONCLUSION

The conclusions derived from the results of this research are;

- 1) There are differences of learning outcomes of students taught by cooperative learning strategies and learning strategies expository jigsaw.
- 2) There is a difference learning outcomes of students who have low motivation and motivation category, higher category through learning strategies.

- 3) There is an interaction between the type of jigsaw cooperative learning strategy and kkspository with motivation in improving student learning outcomes in the subjects of English students PGSD FIP UNIMED

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