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23 - 24 September 2019
Garuda Plaza Hotel - Jln. Sisingamangaraja No. 18
Medan, North Sumatra - Indonesia

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Rundown of The 4th Annual Internatioanal Seminar on Transformative Education and Educational Leadership (AISTEEL) 2019
Garuda Plaza Hotel, Medan, 23 – 24 September 2019

1st day (Monday, September 23, 2019)

Time	Activities	PIC
15.00 – 20.00	Registration in Garuda Plaza Hotel	committee

2nd day (Tuesday, September 24, 2019)

Time	Activities	PIC/Moderator
07.00 – 08.30	Poster Sessions 1	Section Poster 1
08.30 - 09.00	**Opening Ceremony** 1. MC Speech 2. Traditional Welcome Dance 3. Indonesian National Anthem 4. Pray 5. Chairperson Report 6. **MoU signing between Unimed and PSU - Thailand** 7. Welcoming speech of Director of Postgraduate School 8. Welcoming speech and official opening of Rector of State University of Medan	MC
09.00 – 09.40	Plenary Lecture 1: **Prof. Dr. Syawal Gultom, M.Pd** (State University of Medan– Indonesia)	Moderator Section
09.40 – 10.25	Plenari Lecture 2 **Prof. W. L. Quint Oga-Baldwin** (Department of Education, Faculty of education and Integrated Art and Sciences, Waseda University - Japan)	Prof. Amrin Saragih, PhD (Panel)
10.30 – 11.15	Plenari Lecture 3 **Prof. Dr. Wu-Yuin Hwang**(Graduate Institute of Network Learning Technology National Central University, NCU - Taiwan)	
11.15 – 12.00	Plenari Lecture 4 **Prof. Dr. Ekkarin Sungtong** (Dean of Faculty of Education Prince of Songkla University - Thailand)	Mangara Simanjorang, PhD (Panel)
12.00 – 12.45	Plenari Lecture 5 **Asst. Prof. Patcharin Panjaburee, Ph.D.(**Mahidol University – Thailand)	
12.45 – 13.30	**Lunch Break/** Poster Sessions 2	Section Poster 2
13.30 – 15.30	**Parallel Session 1**	
15.30 – 16.00	Break/ Poster Sessions 3	Section Poster 3

15.50 – 18.00	**Parallel Session 2**	Moderator/Operator
18.00 – 19.00	Break/ Prayer	
19.00 – End	Banquet (Gala Dinner) - Announce of Best Presenter - Announce of Best Poster	Consumption Section

Proceedings of the 4th Annual International Seminar on Transformative Education and Educational Leadership (AISTEEL 2019)

Preface

The 4th Annual International Seminar on Transformative Education and Educational Leadership (AISTEEL 2019) was held in Garuda Plaza Hotel, Medan City-Indonesia on 23-24 September 2019. This seminar is organized by Postgraduate School, Univesitas Negeri Medan and become a routine agenda at Postgraduate program of Unimed now.

The AISTEEL is realized this year with various presenters, lecturers, researchers and students from universities both in and out of Indonesia participating in, the seminar with theme "Education, Learning and Leadership Innovation."
The plenary speakers coming from various provinces in Indonesia have been present topics covering multi disciplines. They have contributed many inspiring inputs on current trending educational research topics all over the world. The expectation is that all potential lecturers and students have shared their research findings for improving their teaching process and quality, and leadership.

The fourth AISTEEL presents a keynote speaker and 4 distinguished invited speakers from Indonesia, Japan, Taiwan, and Thailand. In addition, presenters come from various Government and Private Universities, Institutions, Academy, and Schools. Some of them are those who have sat and will sit in the oral defence examination.

There are 310 articles submitted to committee, some of which are presented orally in parallel sessions, and others are presented through posters. The articles have been reviewed by double blind reviewer and 172 of them were accepted for published by Atlantis Press indexed by International Indexation and 96 papers are published by digital library indexed by google scholar.
The Committees of AISTEEL invest great efforts in reviewing the papers submitted to the conference and organizing the sessions to enable the participants to gain maximum benefit.

Grateful thanks to all of members of The 4th Annual International Seminar on Transformative Education and Educational Leadership (AISTEEL 2019) for their outstanding contributions. Thanks also given to publisher for producing this volume.

The Editors

Bornok Sinaga
Rahmad Husein
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Table of Content

The Effect Model of Learning and Learning Interest Against the Results of Learning the Knowledge of Nature Primary School (SD) in Medan T.A 2019/2020

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***Abstract*— This research aims to find out: 1) IPA learning outcomes students are dibelajarkan learning models by using Jigsaw and results learn IPA learners with learning models dibelajarkan STAD; learning outcome 2) IPA among learners with high levels of interest in learning and learning outcomes students with low learning Interest.; 3) the interaction between the learning model (Jigsaw and STAD) and an interest in learning the learning outcome influenced the IPA. The research method used is a 2 x 2 factorial design experiment of quasi. Research results concluded that: (1) the average of the results of learning IPA students taught with the learning model Jigsaw learning model higher than STAD; (2) average the results of learning IPA students who have an interest in higher Interest high learning learning is low; (3) there are interactions between the model of teaching and learning towards the learning results of interest in the IPA.**

Keywords—Jigsaw, STAD, Interest Learning and the result of the study.

I. INTRODUCTION

During this learning model applied in SD Negeri Medan found that teachers in teaching Natural Science subjects, most of the learning model used is Direct Instruction. That is because the teacher thought the subject matter IPA most more precise method submitted with the lectures. This is because learning the IPA by placing students individually will be more conducive. Other methods besides a talk is a discussion by studying his own material either through books or the internet. Although teachers are already applying model-based learning, the learning group, but not yet fully directional and made well. Therefore, in the study groups of students are not fully participating and not a few students tend to be passive.

Based on data obtained then it can be seen that the average value of the UAS is still low and still below the value of KKM. It is alleged to be caused by a variety of factors such as: students consider the lessons of the IPA is identical to the calculation that elusive and hapalan that are difficult to remember because of the many terms the term IPA that is difficult to understand. Teachers tend to teach by using conventional methods when IPA lessons conducted at the beginning of the school day. Students still does not bargairah in the classroom and tend to be quiet when the teacher asks a question or ask for opinions about the material that students have been taught there is even some students told me with his friend the others at the time the teacher explains subject matter became so obstreperous IPA. If the given exercises group work not all of the students participating in the task given by the teacher. Even when held in the class only a few students are active because many students assumed not to be able to communicate with the breed in issuing his opinion and less sure of himself making every effort so that the appropriate students draw themselves in the discussion and the more passive learning.

Jigsaw learning model is one of the models of learning model which combines language and content, where a second language or foreign language is not only used as the language of instruction in the learning but also as a very important tool for build knowledge. The main function of this learning model is based on the material (content) and language (language) learning used in introductory. Jigsaw aims to introduce a new concept of learners through learning with non-native language, improve the production of language learners from the subjects studied, improve learner performance in eye the lessons learned and the target language and increase confidence in the target learners of English. While the model of learning is a learning model that STAD is more centered on the teacher and prefer the effective learning strategies in order to expand the learning material information. Pay attention to both types of this learning model, attempts to determine the effectiveness of each of these learning models research needs to be done so that the appropriate learning model is obtained and can be

used as a guide in improving the the results of a study on the subjects of Natural Science in junior high school in Medan.

In addition to the learning models that can improve student learning outcomes, learning interests owned by a student learning outcome greatly affect his SCIENCE in the classroom. When students have an interest in learning learning activities have, then he will be compelled to exercise the duties and conduct of difficult but quite realistic in working on it, he will be persistent and never give up in any activity his studies. This can he found in the atmosphere of the learning activities are very supportive and has a high learning interest. Then the learning model used by a teacher in the classroom is closely associated with a learning component which deals with interest to learn.

According to a study of Welgruf (2013) that the effect of the traditional teaching with the Jigsaw learning on learning the skills of independent candidates. It also set out to determine the level of attitudes towards learning, Jigsaw and confidence. His research is done to 49 candidates teachers of secondary education and Science Department of mathematics, Faculty of education, University of Hacettepe. The purpose of this research is to know the influence of model learning against the confidence of students seen from the students ' reasoning abilities. This research is then reinforced with research Rahmawati (2011) which concluded in his research that the learning model of Jigsaw provide significant effects against the results of the study of biology, critical thinking ability, activity and posture University students in scientific Almuslim Bireun. This is in line with the research Gamze, et al (2010) which concluded in his research that influences learning model Jigsaw and service attitude and skills of teachers, strongly contributed to the High School level education in African countries. This suggests that Jigsaw social interactions and supported with influence in improving students ' critical thinking ability in comparison with the method of lecture.

In this study linked various theories that can illustrate the influence of cooperative learning model and learning interest against the results of learning IPA students. Will then be presented with the results of research and discussion that is associated with the theory of theories that have been informing the research. As for the reason for the selection of the model of learning and the learning model Jigsaw STAD is due on the learning resources learning not only the students but also the teachers. These conditions are expected to help students who have learning difficulties and may encourage students to complete each subject from the subject matter submitted by teachers.

Related to those described above, the purpose of this research is (1) to find out the results of learning the IPA students taught with the learning model Jigsaw higher than students taught by learning model STAD (2) to find out the results of learning IPA students who have interest in studying high-higher than students with low learning interest (3) to know the interactions between models of learning and interest in learning the IPA learning results.

II. METHOD AND RESULTS METHOD

This research is carried out in SD Negeri Medan. The population in this research is the whole grade V which is in SD Negeri 0606038 terrain and SD 068007 Field amounted to 251 students. Sampling techniques in the study was a random sample techniques Group (cluster random sampling).

This research uses experimental methods with quasi experimental design 2 x 2 factorial. Through this design compared to the influence model of learning and the learning model Jigsaw STAD towards learning outcomes in terms of IPA interest student learning. The next variables are included in the design research as seen on table 1.

TABEL 1. DESIGN RESEARCH

A / B	JIGSAW (A_1)	STAD (A_2)
High (B_1)	$A_1 B_1$	A_2B_1
Lowde (B_2)	A_1B_2	A_2B_2

Where:

A1B1: The results of learning IPA groups of students who were given preferential treatment by the Jigsaw learning model has a high learning interest

A2B1: The results of learning IPA groups of students who were given preferential treatment by the model of learning that has an interest in studying STAD high

A1B2: The results of learning IPA groups of students who were given preferential treatment by the Jigsaw learning model has a low learning interest

A2B2: The results of learning IPA groups of students who were given preferential treatment by the model of learning that has an interest in studying STAD low.

Data analysis techniques used are descriptive statistical techniques and inferensial. Descriptive statistical techniques used to describe data between lai: average, median, mode, variance and Byway of baku. Inferensial techniques that will be used is the technique of data analysis of variance (ANAVA) 2 x 2. Hypothesis testing is conducted on a 5% significance level. Before ANAVA two lines do, first carried out test requirement analysis i.e. test normality test using Liliefors and its homogeneity test using the test of Fisher and Bartlett test.

Next up for the purpose of hypothesis testing, statistical hypothesis is formulated as follows:

Hipotesis I $H_0 : \mu A_1 \leq \mu A_2$
$H_a : \mu A_1 > \mu A_2$

Hipotesis II $H_0 : \mu B_1 \leq \mu B_2$

$H_a : \mu B_1 > \mu B_2$

TABLE II. TESTING HYPOTHESIS BY USING 2 WAY ANAVA

Varians	Dk	JK	RJK	F_{Hitung}	F_{Tabel}
A	1	189,94	189,94	14,21	4,01
B	1	233,40	233,40	17,46	4,01
AB	1	136,87	136,87	10,24	4,01
Galat	120	1604,02	13,37	-	-
Total	123	2164,23	2177,6	-	-

Where,
A : the learning model
B : interest in learning
Dk : Degree of freedom
JK : The sum of squares
RJK : The average of the sum of squares

The interaction can be seen in fig. 1

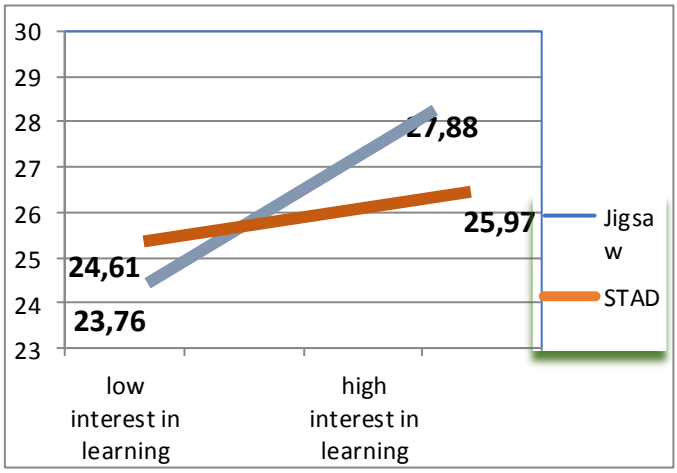

Fig.1 Interaction model of learning and learning interest

III. RESULTS AND DISCUSSION

Based on the results of the first hypothesis testing of the results of the calculation hypotheses obtained F count = 14.21. For a value of the F distribution table = 4.01 then these results indicate that F F > count table giving the decision that Ho is rejected and the Ha are received. Thus, the research hypothesis proposed learning outcomes i.e. IPA grade learning model Jigsaw is higher than the results of learning IPA grade learning model STAD.

This is similar to the results of research on Mike (2004) stating that there is an increase in student learning outcomes by using the learning model of Jigsaw. According to research learning model Mike Jigsaw provides opportunities as well as opportunities to students to further thought and bernalar students about what is being learned. This model also encourage students to do the skill proficiency in skills such as using English in learning and everyday life. Here is where students demanded must be active doing the skills in private. Model Jigsaw can also develop the attitudes, skills and knowledge of the learners. The application of model Jigsaw in learning not only focus on how to develop the competence of learners in performing observation or experimentation, but how to develop the knowledge and skills of thinking so it can support creative activities in innovating or work. Through a series of learning using model Jigsaw then student learning outcomes encompass the realm of cognitive, affective, and realm realm of psychomotor can be trained.

While the Model in STAD is a model which is at the teaching that the function of the teacher as a learning centre. Focus model in STAD is located at how students learn by observing skill in selectively, remembering and menirukan what modeled his teacher. But the result of school, not just about the use of language/skills students in mastering the language unless it is also understanding students about the structure of the grammar.

From the explanation above, seen that student learning outcomes related to the cognitive aspect is highly developed in the model of Jigsaw. Thus, it is clear that by using Model Jigsaw will give more influence to the hasi learn IPA compared with learning using learning model STAD.

From the results of the calculation of the second hypothesis obtained F count = 17.46. For a value of the F distribution table = 4.01 then these results indicate that F F > count table giving the decision that Ho is rejected and the Ha are received. Thus, the research hypothesis proposed i.e. There is difference results learn IPA students with an interest in learning the IPA learning outcomes of students with low learning Interest.. The results showed that the average value of the results of learning IPA students who have interest in studying high-higher than than the students who have the interest in learning. This indicates that students who have interest in learning more able to understand the lessons of the IPA compared than students with low learning interest. The results of the radar researcher during the learning process, it appears that the students who belong to the high learning has an interest tend to be more outgoing, mingling with the new environment, is active in private or group, more motivated and enthusiastic following learning, more confidence in either ask, answer questions, suggested. Students who have interest in studying high also don't feel afraid of wrong or different opinions with other students as well as more had a sense of mutual respect.

Based on the above description, it is clear that students who are interested in studying high results learn IPA higher compared to students who have an interest in learning. It can be concluded if there is a difference results learn IPA students who have interest in studying high with low learning interest.

From the results of the calculation of the third hypothesis obtained F count = 10.24. For a value of the F distribution table = 4.01 then these results indicate that F F > count table giving the decision that Ho is rejected and the Ha are received. Thus, the research hypothesis proposed i.e. There is interaction between the models of learning and interest in learning the IPA learning results. When viewed from the average of the results of learning IPA on groups of students who have interest in study is tall and is taught by learning model Jigsaw is higher compared to the average of the results of a study group with other students. This is because learners can follow a learning, where learners are able to solve the problem posed, the existence of a model of learning that can foster a spirit of students in learning. Meanwhile, in the teaching and learning activities, either in learning or learning model Jigsaw STAD can take interactive learning atmosphere because of the fun.

Learning using learning model Jigsaw teachers ceased to be the center of the study but based on students itself. Learning Models meant, intended to provide an understanding of Jigsaw to participants in the identification, understanding the teaching of various material using model language and content, that information can originate from anywhere, anytime, not depending on help one direction of the teacher. The crux of this model are expecting students to do the process of observation, ask, menalar, tried it, communicate (make mesh) towards everything related with the learning process itself. Through this model students are expected to think scientifically and can learn and work in groups to solve problems that are given so that teachers are able to achieve optimal learning achievements. One thing to note, too, of the factors affecting the results of the study are of interest to learn. The learning interest of students who are less well known by teachers as a whole will be hard to steer students to be active in learning activities. It is this circumstance which caused the value of student learning outcomes is still much below the average.

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