# PROSIDING

PENDIDIKAN FISIKA
DAN BAHASA INGGRIS
2014

# CARA PRAKTIS DAN INOVATIF DALAM PEMBELAJARAN FISIKA DAN BAHASA INGGRIS

Surabaya, 17 Mei 2014



Fakultas Keguruan dan Ilmu Pendidikan Universitas Katolik Widya Mandala Surabaya Jl. Kalijudan 37, Surabaya 60114

#### Judul Buku

Prosiding Seminar Nasional Pendidikan Fisika dan Bahasa Inggris: Cara Praktis dan Inovatif dalam Pembelajaran Fisika dan Bahasa Inggris.

#### Redaksi

Ketua Prof. Dr. A. Ngadiman Anggota

- 1. Prof. Dr. Veronica L. Diptoadi.
- 2. Prof. Drs. Soegimin W. W.
- 2. Y.G. Harto Pramono, Ph.D.
- 3. J.V. Djoko Wirjawan, Ph.D.
- 4. M.N. Siti Mina Tamah, Ph.D.
- 5. Dr. Ruruh Mindari
- 6. Dr. B. Budiono
- 7. Drs. I Nyoman Arcana, M. Si.

Cetakan Pertama Mei 2014

Penerbit

Widya Mandala Press Gedung Agustinus Lantai 4 Jl. Dinoyo 42-44 Surabaya e-mail: perpus@mail.wima.ac.id Copyright Hak Cipta Widya Mandala Press

Dilindungi oleh Undang-Undang, dilarang mengutip atau memperbanyak sebagian

atau seluruh isi buku ini tanpa izin tertulis dari penerbit.

0-2-PE84P-504-87P NBZI



# THE CORRELATION BETWEEN SAC INDEPENDENT LEARNING AND STUDENTS' STRUCTURE ACHIEVEMENT

by

Sinta Ning Rum Widyastuti, Susana Teopilus, M. G. Retno Palupi The English Department of Widya Mandala Catholic University Surabaya Jl. Kalijudan 37, Surabaya sinta widyastuti@yahoo.com

Abstract. Grammar plays an important role in learning English. One of the reasons is because lack of grammar knowledge may cause misunderstanding and misinterpretation. However, English grammar as a subject is considered difficult for many students. So, lecturers at the English Department of Widya Mandala Catholic University think of different ways to help students in mastering grammar. One of the ways is through an independent learning. The independent learning for supporting grammar lessons is conducted by the Self Access Center (SAC). This research was conducted to find out whether there is a significant correlation between SAC independent learning and students' Structure achievement.

There were forty seven respondents, students of 2013 academic year who were taking Structure I, who took part in this study. The data obtained were correlated using Pearson Product Moment Correlation formula.

The findings showed that there is no significant correlation between SAC independent learning and students' Structure achievement for the first half of the semester. However, for the second half of the semester, there is a significant correlation between both of the variables. It happens because that many of the students did not complete their SAC exercises before Midterm test but then they completed the exercises before the Final term test. It made the correlation significant.

**Key Terms:** *Independent Learning, Structure* 

#### INTRODUCTION

Grammar plays an important and crucial role in learning a particular language. It is because the meaning of the word combinations (phrases, clauses, or sentences) depends on the grammar or structure. According to Newkirk (as cited in Suthiwartnarueput et al., 2012), grammar is a combination of contents, including grammatical rules and terms, and methods, including the memorization of the rules and definitions as well as sentence analysis<sup>[1]</sup>.

Many students also think that learning grammar is important for them. Male (2011), for instance, conducts a study in Universitas Kristen Indonesia (UKI). He finds that 70% of his respondents agree that grammar plays an important role in the study of English<sup>[2]</sup>. Pazaver and Wang (2009) also support this idea by conducting a similar study and their participants

believe that grammar is so important in learning a language since lack of grammar knowledge may cause misunderstanding and misinterpretation<sup>[3]</sup>.

In the English Department of Teacher Training and Education Faculty of Widya Mandala Catholic University Surabaya, there is a series of Structure classes which deal with English grammar. They are Structure I, II, III and IV. In these subjects, students learn English grammar from the basic to the complex ones.

However, grammar as a subject is considered difficult for many students. Crystal (as cited in Ronnå, 2012) says that it is one feature of the English language classroom that few love and many hate<sup>[4]</sup>. Students' achievement on grammar is also unsatisfactory. It also happens in the English Department of Widya Mandala

Catholic University Surabaya. Many students fail in Structure subjects.

Due to these reasons, Structure lecturers in the English Department of Widya Mandala Catholic University Surabaya think of different ways to help students in mastering grammar. One of the ways is through an independent learning. The grammar independent learning was conducted by the Self Access Center (SAC).

Interested in finding out the correlation between SAC independent learning and students' Structure achievement, the writer conducts a research by analyzing students' scores.

Then, the hypotheses of this study are (H0) there is no significant correlation between SAC independent learning and Structure achievement in the English Department students of Widya Mandala Catholic University Surabaya and (Ha) there is a significant correlation between SAC independent learning and Structure achievement in the English Department students of Widya Mandala Catholic University Surabaya.

The population of this study is all students of the English Department of Widya Mandala Catholic University, who take Structure subjects. However, the writer only takes students of 2013 academic year who are taking Structure I because they are taking this subject in this semester and it is their first time conducting independent learning. Variables such as the students' attitude, motivation, home environment and intelligence are, therefore, beyond the scope of the study.

### REVIEW OF RELATED LITERATURE

The related literature includes the definition of independent learning, the benefits of independent learning, the application of independent learning, self-access center, SAC independent

learning, and Structure subjects in the English Department of Widya Mandala Catholic University Surabaya.

#### **Independent Learning**

Many students find difficulties in learning certain subjects in school. There are several reasons why students find difficulties in learning subjects in school, such as the frequent absence of the students, the non-expert teacher, the class condition, and so on. In helping the students in mastering the difficult subject, schools have several solutions. One of them is conducting independent learning for the students. Independent learning is "an educational system in which the learner autonomous, and separated from his teacher by space and time, so the communication is by print, electronic, or other non-human medium" (Moore, 1973) [5]. Besides Moore (1973), Leach (2000) also provides the definition of independent learning with the same idea. She defines independent learning as "learning in the way we want to learn." [6] She also adds that learning independently does not mean that they are in an isolated place where they cannot ask other people if they find difficulties.

This kind of learning can illustrate how independent learning in Self Access Center (SAC) in the English Department of Widya Mandala Catholic University is. In SAC, students are obliged to do some exercises independently. However, there are several counselors to help and guide the students if they find difficulties.

Many researchers argue that independent learning is beneficial for students. Meyer et al. (2008) finds two studies that, students who learn independently work to higher standards, and more motivated and confident than the others<sup>[7]</sup>. He also lists some benefits of independent learning such as

improving academic performance, building student awareness of their limitations and their ability to manage them and enabling teachers to provide differentiated tasks for students.

Risemberg and Zimmerman (as cited in Meyer et al., 2008) also argue that independent learning is useful for diagnosing giftedness in students and improve gifted students' academic achievement<sup>[8]</sup>.

#### **Applying Independent Learning**

To apply independent learning, there are several points to be noticed for both teachers and students:

- a) A good learning environment and learning experiences Brown et al. (1977) suggest that the most important role teachers may perform is organizing the learning environment and learning experiences<sup>[9]</sup>. The examples of experiences leading to learning are thinking and problem solving. The availability of materials and equipment, also facilities and station may influence the success of learning environment.
- Three supporting skills engage successfully independent learning, students should have three supporting skills (Meyer, 2008) Thev Cognitive Metacognitive skills, skills, Affective skills. and Cognitive skills include memory, problem-solving. attention and Metacognitive skills meant for higher order thinking which can students plan make how to approach a given task, monitor comprehension and evaluate their progress. And Affective skills are related to managing feelings and emotions.
- c) Good and appropriate assessments Assessment is also important to identify the mastery of students. A

good and appropriate assessment can help students in identifying their difficulties, so it also improves their ability in conducting self-assessment. There are three types of assessment according to Blaz (2008), preassessments, formative assessments, and summative assessments<sup>[10]</sup>.

#### **Self-access Center (SAC)**

For conducting an independent learning, students need a good learning environment. Α good learning environment can be in a form of the availability of facilities and areas for conducting independent learning. This kind of area is called self-access center. According to Sturtridge (as cited in Widiati, 1996), a self-access center is 'any system which makes materials available to language learners so that they can choose to work as they wish, usually without a teacher or with very support'[11]. limited teacher purposes of building a self-access center are (Widiati, 1996) to provide for individual needs and interests, to extend language input -- to give chance to listen, speak, read and write in the target encourage language, to learning independence, and to practice learning independence<sup>[11]</sup>.

English Department of The Widya Mandala Catholic University has a self-access center or known as the SAC. There are many grammar materials provided for students which are placed in several racks, with the problem sheets and answer keys. So, students can choose what material they want to study. When they find difficulties, they may ask the counselors there. There are four counselors in the SAC. However, there are only two counselors for each day.

In SAC, there are three programs for helping students learn

Structure subjects. They are Structure Independent Study, Structure Group Tutorial and Structure Independent Tutorial.

Independent learning or independent study in SAC is conducted as a compulsory program for students taking Structure subjects. Students do exercise from the booklets provided by the SAC. The booklets are taken from students' Structure Workbook. The students write their answers on their own pieces of paper, check their answers with the answer key provided and put them in the folder as a part of their portfolio content. They might ask the counselor for help to if they find difficulties.

Different from the SAC Independent Study, both Group Tutorial and Individual Tutorial are only conducted if there are students who register themselves to join the tutorial because they still find difficulties on certain subjects.

Here, what the writer wants to find out is the correlation between SAC Independent Learning achievement and Structure achievement. The writer chooses Structure I as the sample.

# Structure Courses at the English Department

Structure is a grammar subject taught in the English Department of Widya Mandala Catholic University Surabaya. There are four Structure subjects. They are Structure I, Structure II, Structure III, and Structure IV. The students take Structure I in the first semester, Structure II in the second semester, and so on. This study focuses on Structure I.

Structure I is one of the series of the Structure subjects taught in the English Department, Widya Mandala Catholic University Surabaya with four credits. The English Department students take this subject in the first semester. The students are also obliged to study independently at the Self Access Center.

In this subject, students use Badalamenti & Stanchina's (2000) book entitled *Grammar Dimensions*, Platinum edition 1 and 2. There are four regular quizzes before mid-term test and four regular quizzes before final-term test.

#### RESEARCH METHOD

This study is a correlational study which describes the correlation between two or more variables. The variables are the SAC Independent Learning and Structure achievement. To collect the data for this study, the writer uses both quantitative and qualitative data. Actually, this study is quantitative study, but to collect more information about SAC Independent Learning and Structure from the students, the writer also uses qualitative data. The qualitative data are collected by using questionnaire the students fill out.

The population of this study is all the students of English Department of Widya Mandala Catholic University, who take Structure subjects. However, the writer only takes students of 2013 academic year who are taking Structure I because they are taking this course in this semester and this is their first time joining SAC Independent Learning.

The instruments which are used in this study are the questionnaire, the Structure I midterm and final term test and SAC independent learning exercises of 2013 academic year students of English department of Widya Mandala Catholic University Surabaya. The questionnaire is used to support the other instruments.

To correlate the data, the writer used Pearson Product Moment formula. There were two data to calculate here. The first is SAC Independent Learning

scores for the first half of the semester and Structure I Midterm test scores. The second is SAC Independent Learning scores for the second half of the semester and Structure I Final term test scores. Here is the formula (Arcana, Nyoman: 1996) [12]:

$$rxy = \frac{n \cdot \sum xy - \sum x \cdot \sum y}{\sqrt{\{n \cdot (\sum x^2) - (\sum x)^2\} \{n(\sum y^2) - (\sum y)\}^2\}}}$$

The writer also found the coefficient of determination to know the contribution of variable X towards variable Y, if there is a significant correlation. The formula is (Arcana, Nyoman: 1996) [12]:

$$CD = r^2 \times 100\%;$$
  $0 \le r^2 \le 1$ 

To support the findings of the data correlated, the writer analyzes the questionnaire the students filled in by counting the percentage of the answers, interpreting the data and making the table of the findings of the questionnaire.

#### THE RESULTS AND DISCUSSION

calculate the correlation between SAC Independent Learning as variable X and Structure Achievement as variable Y, the writer used Product Correlation Moment formula by Pearson. Before calculating the correlation between the two variables, the writer reduced the number of respondents from 57 to 47. It was done because ten of the respondents did not have the complete scores of either SAC Independent Learning or Structure I, so they could not be included as the research subjects/respondents.

After reducing the number of the respondents, the writer calculated the correlation between variable X and Y. Here is the result of the correlation:

Table 1 Statistical Calculation of the Correlation between SAC Independent Learning Scores and Structure I

t ,	N	ΣX	ΣΥ	$\sum X^2$	$\sum Y^2$	∑XY	r calc ulati on	table (LOS : 5%)
1 <sup>st</sup> half	47	3250	3484	13040 1,1	27125 0,7	18251 5,5	0,20 7	0,288
( 2 <sup>nd</sup> half	47	3775, 4	3534 ,9	29127 5,3	27282 0,2	27601 9,8	0,52 5	0,288

After calculating the data of the first half of the semester by using Pearson Product Moment formula, the writer found that the correlation coefficient was 0,207. The r was not zero and it was bigger than zero ( $r \neq 0$  and r > 0). It means that there is a correlation between variable X and Y and the correlation is a positive correlation. So, when X increases, Y increases in general and when X decreases, Y decreases.

Since the number of respondents in this research was 47, it was found that the critical value of r product moment was 0,288. It is bigger than the correlation coefficient for the first half of the semester (0,207), so Ho is accepted and Ha is rejected. The correlation between SAC Independent Learning and Structure achievement for the first half of the semester is not significant. The coefficient of determination in this correlation is not calculated since there is no significant correlation between the two variables.

The correlation for the first half of the semester is not significant because many students, whose score in Structure I Midterm test was good, did not complete their SAC Independent Learning exercises. This happened because when students did not complete the exercises on that week, they could not do it the next week. This regulation is from the SAC. Consequently, they

gained bad score in the SAC Independent Learning.

In the questionnaire, 78,18% of the students said that there were too many exercises given by the SAC for Structure I. In addition, 34,55% of the students thought that the time given for SAC Independent completing the Learning was not enough. Furthermore, 58,18% of the students found difficulties doing SAC in the Independent Learning. In addition, the same percentage of students did not ask counselor when they difficulties. They chose to ask their friends (92,73%) or tried to solve the problems themselves (74,55%). In sum, the students did not make use of the facilities provided by the SAC.

The same as the correlation for the first half, the correlation of the second half of the semester shows that r  $\neq 0$  and r > 0. It means that there is a positive correlation between variable X and Y. Nevertheless, since the value of the correlation coefficient in the second half of the semester (0,525) is bigger than the critical value of r product moment (0,288), Ho is rejected. It means that there is a significant correlation between SAC Independent Learning and Students' Structure Achievement.

Considering the classification the (magnitude) of correlation coefficient (Arcana, Nyoman: 1996)<sup>[12]</sup>, the correlation for the second half of the semester is a moderate correlation. Since the correlation is significant, the writer continued to find how big the contribution SAC Independent of Learning toward Structure achievement is. By calculating the square of the correlation coefficient (0,525) then multiplying it by 100%, the writer discovered that the coefficient of determination was 28%. It means that the contribution of SAC Independent Learning towards the increase and the

decrease of Structure achievement is 28%.

We can see from the table above that the correlation coefficient improved from the first half to the second half of the semester and the correlation became significant. It happened because the students, who did not complete their SAC-before-Midterm exercises, then completed their SAC-before-Final term exercises. So, the score of their SAC Independent Learning became better than before. Also, it means that the students' ability in studying independently increased. It was balance with their comprehension of Structure. It was also proven in the questionnaire that 83,64% of the students said that they understood the materials better after doing the SAC Independent Learning, and the writer found that more than half Structure I Final term test scores of the students (61,70%) improved.

#### **CONCLUSION**

After analyzing and examining the results of the study, the writer can conclude that in general, there is a positive correlation between SAC Independent Learning and Structure Achievement. It means that when the students' achievement in SAC Independent Learning is high, the achievement in Structure is also high, and vice versa.

It is true that there is no significant correlation between SAC Independent Learning and Structure achievement for the first half of the semester. It happened since many of the students did not complete the exercises given by the SAC. The students said that there were too many exercises given but the time was not enough for completing all the exercises. Also, they did not ask the counselor when they found any difficulties.

However, after completing the before-final-term exercises, the students' scores increased and this made the correlation significant since their SAC Independent Learning scores was then as good as the Structure scores.

#### **REFERENCES**

- [1] Suthiwartnarueput, T. & Wasanasomsithi P.(2012). Effects of Using Facebook as a Medium for Discussions of English Grammar and Writing of Low-Intermediate EFL Students. Electronic Journal of Foreign Language Teaching 9(2),194–214. 2012, Retrieved from http://eflt.nus.edu.sg/v9n22012/suthiwartn arueput.pdf (September 20, 2013)
- [2] Male, H. (2011). Students' View on Grammar Teaching. *Journal of English Teaching*, 1(1).
- [3] Pazaver, A. & Wang, H. (2009). Asian Students' Perception of Grammar Teaching in the ESL Classroom. The International Journal of Language Society and Culture, 27.
- [4] Ronnå, R. (2012). English Teaching with Grammar? A Study on How English Teachers at Upper Secondary School in Sweden Use Grammar in Their Teaching. Goteborgs Universitet.
- [5] Moore, M. G. (1973). Toward a Theory of Independent Learning and Teaching. *Journal of Higher Education*, XLIV(12), 661-679
- [6] Leach, L. (2000). Self-Directed Learning: Theory and Practice. Sidney: University of Technology.
- [7] Meyer, B., Haywood, N., Sachdev, D. & Faraday, S. (2008). What is

- Independent Learning and What are the Benefits for Students?. London: Department for Children, Schools, and Families Research Report 051.
- [8] Meyer, B., Haywood, N., Sachdev, D. & Faraday, S. (2008). Independent Learning Literature Review. Learning and Skills Network.
- [9] Brown, J. W., Lewis, R. B. & Harcleroad, F.F. (1977). AV Instruction-Technology, Media and Methods. United States of America: McGraw-Hill, Inc.
- [10] Blaz, D. (2008). Differentiated Assessment for Middle and High School Classrooms. New York: Eye on Education.
- [11] Widiati, A. S. (1996). Self-Access Centre: Promotion Self-Instruction in Language Learning. *Magister Scientiae*, (5), 80-86.
- [12] Arcana, Nyoman. (1996).

  \*\*Pengantar Statistika II. Fakultas

  Ekonomi, Universitas Katolik

  Widya Mandala Surabaya.