

The Correlation between Students Learning Styles and Their English Academic Achievement

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Abstract

This study aims to find the correlation between students learning styles and their English academic achievement. This research used quantitative method which involved descriptive (MEAN score) and correlation (Pearson Product Moment Correlation Coefficient) analyses. To gather the data, a questionnaire was used as the instrument to measure the learning styles of the students. This research used a convenience sampling method for the study. This study was conducted at SMA Unklab Airmadidi with 80 respondents from grade X IPA. The result of this study showed that students learning styles were correlated with their English achievement.

Keywords— learning styles, English academic achievement

Abstrak

Tujuan dari penelitian ini adalah untuk menemukan korelasi antara gaya belajar siswa dan prestasi bahasa Inggris mereka. Peneliti menggunakan metode kuantitatif dalam penelitian ini, deskriptif (Mean Score), dan korelasi (Pearson Product Coefficient Moment). Untuk pengumpulan data, digunakanlah sebuah kuesioner untuk mengukur gaya belajar siswa. Penelitian ini menggunakan convenience sampling method. Penelitian ini dilakukan di SMA UNKLAB Airmadidi dengan responden kelas X IPA sebanyak 80 siswa. Hasil penelitian ini menunjukkan bahwa gaya belajar siswa berkorelasi dengan prestasi Bahasa Inggris mereka.

Kata kunci— gaya belajar, prestasi akademik Bahasa Inggris

INTRODUCTION

Learning is a process of study about new things and new experiences. Learning itself is a process that every student experience in their lives, especially when they are in school to study. Learning itself is a process of acquiring knowledge and willingness to generate what acquired. In 2010, Rossum and Hammer stated that Learning is the same as memorizing yet capability to reproduce what memorized. In learning process, it would be better if the students understand their own learning styles. Learning styles will support students in order to get better English academic achievement. Ling, Basit, & Hassan (2017) believed that "many research from experts found that student or learner tends to have their own preference in learning style" (p. 4) and that is why teachers should find out their students learning styles. Learning styles will support students in order to get better English achievement, and learning styles are crucial, because "learning style is important in teaching learning process as it is a part of students' characteristic; and each student brings their own style to the classroom" (Nafis, 2017, p.9).

In this modern era of education, there are some people out there that still have no interest on learning styles and how those styles matter and affect on students academic achievement. Learning styles have influences in students academic achievement, especially in English academic achievement, for it helps students in getting good grades in their learning process. According to Wiyono (2008) "achievement is what learners do with what they learn; it is the outward and visible sign of progress." Students English academic achievement will be better if the educators design their ways of teaching to be more interesting. Moreover, some English language teachers did not employ variety teaching strategies and comtemporany technologies in their English language lessons (El-Omari, 2016), and that is why their English academic achievement did not getting better as days go by because they did not feel satisfiy on their English class. Additionally, the four basic skill in learning English such as listening, speaking, reading and writing sometimes make students encounter problems to mastery those skills, and somehow it affect their English academic achievement (Halder, 2018). Students English academic achievement and their learning styles are affected to each other.

In teaching and learning process, some of educators usually taught their students with the same methods and approach in every single day and somehow did not realize that they should make the teaching learning process as interested as it can be by understanding each students learning styles. The background of this study is to give proofs that students learning styles and their academic achievements are correlated to each other. When the students understand their own learning styles it is not only helpful for them, but also for their teachers. When the teachers understand their students learning styles, then it will help them to somehow have an interesting class because they know each students ways of learning and they will also know what the students need on every learning material. Furthermore, when students have an interesting class, they will enjoy a good class' atmosphere and their academic achievement will be better.

Learning styles are important for both studenst and teachers. But sometimes teachers did not realize the importance of knowing their students learning styles are very helpful in order to create a better academic achievement, specifically English academic achievement. Awla (2014) in his study entitled "Learning Styles and Their Relation to Teaching Styles" believed that when teachers have the understanding of their students learning styles and and preferences it will not only produces benefit for teacher as educator, but also it can have benefits for students too. Furthermore, the understanding of students learning styles will be helpful for students English academic achievement. There are some purposes of this study. First is to find out the level of student learning style. Second is to find out the level of student English academic achievement. Third, is to find out the significant difference between male and female based on student learning style. Fourth, is to find out the significant difference between male and female based on student English academic

achievement. The last is to analyze the correlation between students learning style and their English academic achievement.

This study is intended to answer these following questions: What is the level of student learning style? What is the level of student English academic achievement? Is there any significant difference between male and female based on student learning style? Is there any significant difference between male and female based on student English academic achievement? Is there any significant correlation between students learning style and student English academic achievement?

The outcome of this study might direct the educators to understand about how students learning styles affect their academic achievement. First of all, this study can help the educators to be more focused on students learning styles which have a relationship with students academic achievement. Next, this study also can be useful for the students to have more understanding of their own learning style and the impact on their academic achievement. Moreover, this study can be a medium for other researchers and readers to gain more enlightenment about learning styles so that they can use it in the future to support the students. This study was focused on learning styles of the students and the correlation with their academic achievement. The population of this study was the students of SMA Pioneer Manado in the first semester of 2019/2020 academic year. The respondents of this study were limited to grade X IPA and IPS of SMA Pioneer Manado. The data were retrieved only by close questionnaire, filled by 52 respondents using convenience sampling method.

Literature Reviews of Learning Styles and Academic Achievement

Learning style is the most common topic that every educator needs to understand because "learning styles are the ways of processing information through the application of certain learning strategies and approaches that are best suited to student" (Porong & Kawuwung, 2015, p. 6). Salindeho and Bukamo (2015) stated that "learning styles are people habitually manner of getting the information and skills" (p. 1). According to the theory developed by the psychologists and teaching specialists that is Fernald, Keller, Orton, Gillingham, Stillman and Montessori (1920) learning styles were divided in three types, which are Visual learning style, Auditory learning style, and Kinesthetic learning style. Additionally, visual learning style is people's way of learning when it is easily can be remember when they use visual action, and that is why "visual learners remember best what they see--pictures, diagrams, flow charts, time lines, films, and demonstrations" (Gokalp, 2013, p. 1636). While on the other side, auditory learners will acquire more knowledge when they can hear clearly what the lecturer taught them in the classroom, because "auditory learning style is a style of a person who prefers to learn by hearing" (Kolibu & Tamapeku, 2015, p. 4). Next, in kinesthetic learning style people acquire their knowledge by experience it by themselves. They are more compatible when they can learn by doing the things that they want to understand.

Academic achievement is one of the important factors on students learning process. Academic achievement is the improvement of students learning process that can be controlled by the understanding of students learning styles. Magulod (2018) believed that "the development of their good study habits will make them better learners in their own ways by way of providing effective instructional strategies and provision of other instructional interventions to improve their academic performance is necessary" (p. 186).

Related Studies

Cimermanová (2018) believed that in the last few decades, there has been a surge of interest in the effects of learning styles in education what also resulted in various criteria and categorizations of learning styles. Different categorization or models are based on e.g. sensory input (Flemming's VA(R)K model, see e.g. Flemming & Mills (1992)), grasping knowledge (Kolb's model, see e.g. Kolb (2015)), approach to learning (Entwistle, et al.

(2001); Riechmann and Grasha (1974)) etc. The study conducted a two-way ANOVA test to determine if there was an interaction effect of learning style and form (in-class, online) on learning achievement. The dependant variable was the academic achievement (evaluation 2). The two independent variables presented the six learning styles (independent, avoidant, collaborative, dependent, competitive, participant) and two forms (online and in-class). Additionally, according to her research, the two-way ANOVA result on Table 1 showed that there is no significant interaction between learning style and academic achievement, because the result is $F(4, 72) = .06, p > .05$. Similarly, no interaction effect was recorded for learning style, $F(4, 72) = .06, p > .05$. No significant interaction effect was found when learning style was the dependent variable and form and evaluation were the independent variables. Gopalakrishnan and Pazhalanivelu (2017), on their study entitled Influence of Learning Styles on the Academic Achievement of Prospective Student Teachers in Mathematics, proved that the effective instruction reaches out to all students, not just those with one particular learning style. Students taught entirely with method antithetical to their learning style may be made too uncomfortable to learn effectively, but they should have at least some exposures to those methods to develop a full range of learning skills and strategies.

As cited in Magulod (2018) on his research entitled Learning Styles, Study Habits and Academic Performance of Filipino University Students in Applied Science Courses: Implications for Instruction the study conducted that this study was carried out among the students of Cagayan State University at Lasam, the Philippines enrolled in the applied science courses namely Bachelor in Information Technology and Bachelor in Industrial Technology programs. These applied science courses are academic fields highly regarded as applying scientific knowledge to develop applications like technology and inventions for solving practical challenges. Hence, their conceptual skills, critical thinking, and creative abilities are required to be developed by the students as their graduate attributes. The development of their good study habits will make them better learners in their own ways by way of providing effective instructional strategies and provision of other instructional interventions to improve their academic performance is necessary. Hence, this study correlated the learning styles preferences, study habits and academic performance of students enrolled in applied science courses.

This study and the previous studies have some similarities. For instance, the first similarity of this study and Cimermanová's study (2018) is that both studies were conducted on student learning style and its relationship with student achievement. Moreover, both studies were also used descriptive research design.

METHODOLOGY

Research Design

This study was a quantitative study that used descriptive designs. This study was quantitative study for it used numbers to explain more about the results. Best and Kahn in 1998 defined that quantitative research is "explored through number. Quantitative research focuses on the measurements and quality of people characterizes and events of the research action" (p. 48). Johnson and Christensen (2010) explained that descriptive research is "to learn about attitudes, beliefs, behaviors, and demographics (e.g., age, gender, ethnicity, education) of people" (p. 366). In this study, it was to find out the level of students learning style, the level of students English academic achievement, and if there is any significant correlation between students learning style on their English academic achievement.

Respondents

The respondents of this study were the students of grade X IPA 1 and X IPA 2 at SMA UNKLAB Airmadidi who were enrolled in the first semester of 2020/2021 academic year. The respondents from grade X IPA 1 were 40 students and the respondents from grade X IPA 2 were students. Thus, the total of the students were 80 students.

Sampling Techniques

The research used convenience sampling method for the study. Sekaran and Bougie (2010) stated that convenience sampling method is the collection of information from numbers of the population who are conveniently available to provide it" (276). Furthermore, Latham (2007) believed that in convenience sampling method, the respondents should be agreed and were able to cooperate. Thus, the researcher collected the data from the respondents based on the availability of the respondents at the time of data gathering.

Research Instruments

In this study, the research used a questionnaire as the instrument to collect the data. The questionnaire was adopted from Maramis (2012) Learning Style Questionnaire. The questionnaire contained of 3 students learning styles construction statements (Visual, Auditory, and Kinesthetic) related to students learning styles and their English academic achievement. The questionnaire had 24 questions items: first 8 items, number 1 - 8 were the items for visual learners, second 8 items, number 9 - 16 were the items for auditory learners, third 8 items, number 17 - 24 were items number for kinesthetic learners. The questionnaire tried out to find out the validity and reliability to the grade X IPA 1 and X IPA 2 of SMA UNKLAB Airmadidi.

Data Collection Procedures

To collect the data of the real study, the researcher followed some steps. First, the researcher submitted a letter of recommendation from the Dean of Education Faculty to the principal of SMA UNKLAB Airmadidi to get permission of doing the research. Second, the researcher gave the link of Google form questionnaire to the English teacher of Grade X IPA 1 and X IPA 2, and after that English teacher sent the link to the students WhatsApp group to fill the Google form questionnaire. Third, the researcher collected the responses of Google form questionnaire that already filled out by the students. Fourth, the researcher asked the mid-term English grade of the students from their English teacher. Next, the researcher analyzed the data of mid-term English grades of the students. The last, the researcher interpreted the findings by using statistical software and process the data of the google form questionnaire.

Pilot Study

Before using the questionnaire as the instrument for this study, the researcher needed to conduct pilot study to check the validity and reliability of the questionnaire. Ary, Jacobs, and Sorensen (2010) stated that pilot study provides the opportunity to assess the appropriateness of the data-collection methods and other procedures and to make changes if necessary (p.95). Pilot study in this research conducted at SMA Pioneer Manado that consisted of 27 students of grade X IPA and 25 students of grade X IPS. The respondents for the pilot study were 52 students of SMA Pioneer Manado enrolled in first semester of academic year 2019/2020. The pilot study was done on November 29th, 2019.

Validity and Reliability

In this study, to figure out the validity and reliability of the questionnaire, the researcher conducted a pilot study. To find out whether the questionnaire was valid or not, the researcher used statistical tool to analyze the questionnaire. If the *p*-value of the item was not reach more than .05, it means that the item was valid by Cramer and Howitt (2004). After that, the researcher used Cronbach Alpha formula to measure the valid items in the questionnaire to check the reliability of the items. If the item was up to .70, it meant that the item was reliable enough to support the study by Hale and Astolfi (2014). Then, the valid items were used in the real study.

Ethical Consideration

The respondents were given information regarding the instrument, procedures, the purpose of the study and also more time just in case if they had questions to ask. The results of the study would not affect their grades or relationships with their teachers. In filling the questionnaire, the respondents could also withdraw themselves at any time.

Data Analysis Techniques

To analyze the data, the questionnaire was used to measure the preference of students learning styles and their English academic achievement. And by using statistical software, the data was analyzed. To answer the research questions number one and two were determined by using MEAN, to find out the level of student learning style and English academic achievement. Research questions number three was answered by using Pearson Product Moment Coefficient, to find out the correlation between student learning style and their English academic achievement.

Interpretation of the Data

To find out the level of student learning style for grade X IPA 1 and X IPA 2 of SMA UNKLAB Airmadidi, the data was interpreted using Likert's scale (Gay, 1992) as follows: (1.00-1.49) was very low, (1.50-2.49) was low, (2.50-3.49) was moderate, (3.50-4.49) was high, (4.50-5.00) was very high. Sullivan and Anthony (2013) "Developed in 1932 by Rensis Likert to measure attitudes, the typical Likert scale is a 5- or 7-point ordinal scale used by respondents to rate the degree to which they agree or disagree with a statement." (Para, 2). The responses of the student learning style and their English academic achievement were interpreted by using *Skala Penilaian Departemen Pendidikan dan Kebudayaan Republik Indonesia for Laporan Hasil Belajar Siswa SMA*, as follows: A = Very Good (90-100), B = Good (80-89), C = Average (70-79), D = Low (Below 69).

RESULTS AND DISCUSSIONS

This section provides the results, the interpretation of the data, and the discussions. This section presents the level of students learning styles and the level of their English academic achievement in English class, and also the results of the correlation between students learning styles and their English academic achievement.

The Levels of Students Learning Styles

According to the finding about the level, it showed that the mean score of students visual learning style was 4.06 (Table 1). Based on the interpretation scale, the mean score of students with visual learning style which was 4.06 is interpreted as high level. Next, the mean score of students with auditory learning style which was 3.70 and the mean score of students with kinesthetic learning style which was 3.83 are interpreted as high. According to the Likert Scale (Gay, 1992) 4.06, 3.70, and 3.83 were categorized as high level.

Table 1. Levels of Students Learning Styles (Visual, Auditory, Kinesthetic)

Learning Style	N	Minimum	Maximum	Mean	Std. Deviation
Visual	80	1.75	4.75	4.06	.66
Auditory	80	2.00	4.60	3.70	.63
Kinesthetic	80	2.14	4.71	3.84	.71

The Level of Students English Academic Achievement

Based on the finding, the result showed that the mean score of the students' English academic achievement was 65.41 (see Table 2). According to the finding, the result showed that the mean score of students' English academic achievement was 65.41 (Table 2). Based

on the interpretation scoring system of Departemen Pendidikan dan Kebudayaan Republik Indonesia for Laporan Hasil Belajar Siswa SMA, the mean score which was 65.41 in the range < 69 showed that student's English academic achievement was categorized as low. The level of student English achievement was found to be low according to the interpretation scale.

Table 2. Level of Students English Academic Achievement

	N	Minimum	Maximum	Mean	Std. Deviation
English Academic Achievement	80	40	73	65.41	5.75

The Correlation between Students Learning Style and Their Achievement in English Class

The Pearson Product Moment Coefficient Correlation formula was used to find the answer to the last research question of this study which focused on discovering whether there was significant correlation between students learning style and their English academic achievement. Table 3 shows the results of the correlation between students learning style and their English academic achievement. The outcome showed $r = .49$ and the $p = .00 < \alpha = .05$ (Table 3). McLeod (2019) believed that if the value is lower than .05 (typically $\leq .05$) it meant that it was statistically significant.

Table 3. Correlation between Students Learning Style and Their Achievement in English Class

		Learning Style	English Academic Achievement
Learning Style	Pearson Correlation	1	.49**
	Sig. (2-tailed)		.00
	N	80	80
Achievement	Pearson Correlation	.49**	1
	Sig. (2-tailed)	.00	
	N	80	80

CONCLUSIONS

Based on the result, it could be concluded that the learning styles of students of SMA UNKLAB Airmadidi were found to have high levels. However, the level of their English academic achievement was found to be low. Although there is a correlation between students learning style and their English academic achievement, but the English achievement is low. In this case, it can be inferred that there could be other variables which highly correlate with English achievement and or influence it, but not learning styles. In this case, the teachers or the student themselves are the key to improve their English academic achievement.

RECOMMENDATIONS

There are several recommendations for this study based on the findings and discussion. First for the students at SMA UNKLAB Airmadidi, especially grade X IPA, they must know that knowing their own learning styles is important. To improve their English academic achievement, they should possess very high levels of learning styles. Second, the English teachers especially the English teachers of SMA UNKLAB Airmadidi need to help their students find out their own learning styles, so that, the students can enjoy their English class. To sum up, this research recommends future studies conducting similar studies to conduct their studies at other schools in North Sulawesi and other areas since this kind of study is still rarely conducted in Indonesia.

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