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Learning Style and Learning Achievement of Students of FKIP Universitas Riau In Learning English

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ABSTRACT

Becoming a successful student is a dream of every student and parents. Learning style is one of things that might influence that success. This research intended to find out if there is a correlation between learning styles and learning achievement of students of FKIP Universitas Riau in learning English. 300 students were involved as the sample of the research. The research was conducted during the even semester academic year 2018-2019 and the research data was collected in June 2019. The instruments of the research were adapted from Vark Questionnaire Version 8.01 and students' grades in their English class. Percentage and mean used to represent the frequency of data for descriptive analysis and inferential analysis was carried out. Since the data of students' learning style and learning achievement obtained were not normally distributed, associative Kendall's Tau-c correlation formula was used to find out the relationship between learning style and learning achievement. Based on the data analysis, it can be concluded that there is a relationship between the students learning style and their learning achievement.

1. Introduction

As part of Universitas Riau, one of leading university in Riau Province, Teachers Training and Education Faculty (FKIP) Universitas Riau continuously try to produce professional and competitive educators. For this reason, FKIP Universitas Riau has been trying hard to improve the quality of its graduates. One of the efforts that has been done is to equip the students with English language skills. Before finishing their study, all of the students have to take English. Based on the syllabus of the course, the learning objective is to improve English ability of students in terms of listening, speaking, reading and writing as well as grammar

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and vocabulary. In addition, students are also expected to become familiar to use their English whether in oral or written.

In the middle of February 2019 I had informal interviews with several students from various study programs available at FKIP Universitas Riau. These students are in the process of attending English class during this semester. Through the interviews it was found out that some students experienced various obstacles or problems in following their English class. Students mentioned that they had difficulties in understanding the materials delivered by the lecturers due to various problems, such as: limited knowledge in grammar, rapid pronunciation of the lecturers, unable to take notes accurately and systematically and limited vocabulary they have in order to express ideas.

The students' success in learning is a major concern for highly dedicated lecturers. One of the indicators of students' success can be characterized by students' learning achievement. Many efforts have been made by lecturers to improve students' achievement. Nemeth & Long (2012) say that students' learning achievement can be seen from the achievement of knowledge, skills and learning experiences that have been formulated in learning objectives. The improvement of the students' learning achievement illustrates the quality of education that is getting better. According to Firmender, Gavin, & McCoach, (2014), however, learning achievement indicators can be seen from the standard values set by each institution and on changes in the level of achievement of each student from year to year. While according to Hamilton & Ekeke (2013) the success of students in formal academic institutions can be observed from the actualization of ratings in their learning activities.

Learning achievement in the context of education in Indonesia should be based on regulations issued by Indonesian Minister of Education and Culture No. 23 of 2016 concerning Educational Assessment Standards. Based on this regulation, student learning outcomes in basic and secondary education includes aspects of: (1) attitude; (2) knowledge; and (3) skills. At FKIP Universitas Riau, students' achievement assessment based on regulations issued by the Rector of Universitas Riau as stated in the Rector's decree No. 3 of 2015 concerning the Universitas Riau Academic Regulations. It is mentioned that to find out students' learning achievement, an evaluation needs to be held that aims to determine the success of the learning process and obtain feedback for students and lecturers. Lecturers can conduct evaluations in the form of mid semester and semester test. In other words, to know the students' success, at the end of semester the lecturers give the students grades. This value of the grade comes from the core of students' attendance at lectures, average scores of the given assignments, scores of mid semester test and semesters test.

The students' success in learning is indeed influenced by various factors. One of which is what we call learning style. The term learning style has been widely used in psychology and pedagogy since the 1930s. Researchers have examined various aspects of learning style and have produced various theories and opinions. Keefe (1987) for example, emphasizes learning style as a cognitive, affective, and

psychological trait that serves as a relatively stable indicator of how students understand, interact with, and respond to the learning environment. In addition, Dunn and Dunn (1986) argue that the concentration of each individual, mental processes, internalizing and maintaining new and difficult information comes from someone's specific learning style.

Hilliard (2001) describes learning style as a characteristic of an individual to obtain, understand, and process information. There are individuals who can process information well through viewing or reading written charts, diagrams, or texts. While other individuals can process information well through listening to explanations. When other individuals can process information well through experience, touch or movement. In other words, learning styles can be described as a way to understand, process, store, and remember in the learning process. Ang Siew Ling (2017) says that learning style is not focused on learning material but rather on how one learns in the learning process. Researchers such as Kolb, Honey and Mumford, argue that learning styles are not determined by inherited characteristics, but develop through experience. Learning styles do not have to be corrected, but can change over time, even from one situation to the next. Thus learning style is a term used to describe attitudes and behavior, which determines the way individuals like to learn. Learning styles can also be said as a way of responding to certain learning situations and how they process various forms of information.

Students need to be aware that having only one or two types of learning style / learning preferences is not good, because each lecturer has a different teaching method. Even though students may have a preferred learning style, students must be able to use a variety of other learning styles to learn well. In terms of lecturers, it would be better if the lecturer also understands diverse learning styles of students so that he tries to use various teaching methods as well. Lecturers need to know or identify various variations of student learning styles. This will help lecturers to be more sensitive to the differences students bring to the classroom (Felder & Spurlin 2005).

Many studies related to learning style have been carried out by experts and many opinions have also been raised. Hawk and Shah (2007) say that there are at least six types of famous Learning Style Models: (1) Gregorc Learning Style Model; (2) Kolb Experiential Learning Model; (3) Felder and Silverman Learning Style Model; (4) Dunn and Dunn Model; (5) VARK Model; and (6) RASI Model. Among these six learning style models, the VARK Model became popular because of its face validity, simplicity, and ease. Students with the VARK type learning style model can be categorized into four groups: (1) Visual learners. Referring to learning by seeing, for example, reading and studying charts, diagrams or recordings; (2) Aural learners. Referring to learning through listening, for example, listening to lectures; (3) Read and Write Learners. Refer to the text-based or printed information learning process; (4) Kinesthetic learners. Referring to learning activities through physical activities and movements as well as direct learning.

Based on these categories it appears that each students has different learning style. It is very interesting analyze the learning style and learning achievement of students of FKIP Universitas Riau in Learning English. Thus, the research questions are: (1) How is learning style of students of FKIP Universitas Riau in learning English? (2) What is the level of learning achievement of students of FKIP Universitas Riau in English? (3) Is there any significant relationship between learning style and learning achievement of students of FKIP Universitas Riau in learning English? Thus, the purpose of this research are to describe and analyze in depth about: (1) Learning style of students of FKIP Universitas Riau in learning English; (2) The level of learning achievement of students of FKIP University Riau in learning English; (3) Relationship between learning style and learning achievement of students FKIP Universitas of Riau in English. This research is expected to provide a valuable input for the interest of developing science for interested parties. In practical terms, this research is expected to give information to lecturers about the diversity of student learning styles so that lecturers can choose and apply teaching methods that are appropriate to achieve learning objectives. Moreover, the results of this research give inspiration to the students to get to know each other's learning styles.

2. Methodology

Research Design

This research belongs to descriptive quantitative research that tries find and describe the empirical data on learning styles and learning achievement of students of FKIP Universitas Riau in learning English.

Population and Sampel

The population of this research is all students of FKIP Universitas Riau who are taking English in the even semester academic year 2018-2019, at the time the research data collection was carried out. The total number of students participating in English Class was 959 people. These students were belong to five departments available at FKIP Universitas Riau, namely: Department of Natural Science Education, Department of Language and Arts Education, Department of Education, Department of Sports Education and Department of Social Science Education. Through proportional stratified random sampling technique, a number of 300 students were selected as the sample of the research. According to Krejcie (1970) the number of sample suggested for a significant level of 5% is 278 students. Therefore, taking a sample of 300 students is considered to be eligible for data analysis.

Instrumentation

Two kinds of data were needed to answer the research questions:

1. Data of students' learning style. The instrument used to obtain this data is a questionnaire adapted from the VARK Standard Questionnaire Version 8.01. This instrument was chosen because the VARK Questionnaire has become a
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popular learning style instrument based on real-life situations that are easy to understand and easy to use (Leite, Svinicki, & Shi, 2010). The VARK Questionnaire consists of sixteen questions with four options. All the options are corresponding to the four sensory modalities measured by VARK (visual, aural/auditory, read/write, and kinesthetic). According to the instructions, in responding to these questions the students are free to choose one or more actions to be taken from the four actions provided. Students who only choose one of the four choices are categorized as unimodal, namely: Aural Student (A), Visual Student (V), Read And Write (R/W), and Kinesthetic Student (K). While students who choose two or more choices are called multimodal. Multimodal consists of bimodal, trimodal and quadmodal (James, D'Amore & Thomas, 2011). The students will become bimodal if only two learning styles are preferred, students with three preferred learning styles will become trimodal, while the students with four preferred learning styles will become quadmodal.

2. Data of students' learning achievement. This data was obtained through documentation Technique. The data related to students' scores were available at the office of the academic section of FKIP Universitas Riau. It was taken on June 22, 2019, after the deadline for submission of even semester grades by the lecturers ends. The calculation of grades by the lecturers based on university academic standards consisting of attendance, assignments or practicums, mid semester test and semester test.

The questionnaire was distributed around two weeks before the semester exam conducted. The researcher distributed questionnaires to sample students in the classroom and explained the information about this research and the explanation needed to answer questions provided in the questionnaire. The questionnaire, then were collected immediately. To determine students' learning style preferences, the scores were calculated based on The VARK Questionnaire Scoring Chart.

Data Analysis

To find out the relationship between students' learning style and students' achievement, the data were analyzed using the SPSS application. Percentage and mean are used to represent the frequency of data for descriptive analysis. Furthermore inferential analysis is carried out using the associative Kendall's Tau-c correlation formula to find out the relationship between students' learning style and students' achievement. The Kendall's Tau-c test was chosen because the obtained data of students' learning style and students' achievement were not normally distributed.

3. Results and Discussion

The following are the results of a questionnaire analysis that had been given to 300 students of FKIP Universitas Riau who were taking English Course at even semester 2018-2019. The Profile of the students is as in Figure 1.:

		-	0	-	-	-	2	4,44	4	5,80
VARK	19	28,79	20	55,56	36	42,86	9	20,00	33	47,83
	66	100	36	100	84	100	45	100	69	100,00

Note: 1* Natural Science Education
 2** Language and Arts Education
 3*** Department of Education
 4**** Sports Education
 5***** Social Science Education

Table 1 shows the distribution of learning styles of students based on their majors. Based on Table 1, it can be seen that the majority of students in all of these majors are in the multimodal VARK group (20% -55.56%) In addition to the multimodal VARK category, other categories tend to differ between these majors. The second largest category in the Natural Science Education Department and Department of Education is Read / Write with a percentage of 19.70% and 9.52%. In the Sport Education Department and Social Science Education Department, the VARK category was followed by Visual with a percentage of 20% and 8.70%. Whereas in the Language and Arts Education Department, VARK category were followed by Visual and Read/Write with the percentage of each category amounting to 11.11%.

Students' Learning Achievement

Second Research Question: What is the level of learning achievement of students of FKIP Universitas Riau in English? The results of data analysis about students' learning achievement can be seen in Table 2.

Table 2. Students' Learning Achievement based on Majors

Department* Level of Achievement Cross Tabulation						Total
			Level of Achievement			
			Very Good	Good	Sufficient	
Department	Natural Science Education	N	19	46	1	66
		% within department	28,79	69,70	1,52	100,00
		% within learning achievement	12,18	37,70	4,55	54,43
		% of total	6,33	15,33	0,33	22,00
	Language and Arts Education	N	7	26	3	36
		% within department	19,44	72,22	8,33	100,00
		% within learning achievement	4,49	21,31	13,64	39,44
		% of total	2,33	8,67	1,00	12,00
	Department of Education	N	54	29	1	84
		% within department	64,29	34,52	1,19	100,00
		% within learning achievement	34,62	23,77	4,55	62,93

		% of total	18,00	9,67	0,33	28,00
	Sports Education	N	44	1	0	45
		% within department	97,78	2,22	0,00	100,00
		% within learning achievement	28,21	0,82	0,00	29,02
		% of total	14,67	0,33	0,00	15,00
	Social Science Education	N	32	37	0	69
		% within department	46,38	53,62	0,00	100,00
		% within learning achievement	20,51	30,33	0,00	50,84
		% of total	10,67	12,33	0,00	23,00
	Total	N	156	139	5	300
		% within department	52,00	46,33	1,67	100,00
		% within learning achievement	100,00	100,00	100,0	100,00
		% of total	52,00	46,33	1,67	100,00

Table 2 shows the learning achievement of students of FKIP Riau University based on majors. Students' learning outcomes are grouped into three categories, namely Very Good (A, A-), Good (B+, B, B-), and Sufficient (C+, C). Based on these groupings, it can be seen that overall students of FKIP University of Riau have excellent (52%) and good level of learning achievements (46.33%). Students majoring in Sports Education have the highest learning achievement with 97.78% of students are in the Very Good category. This result was followed by the students of Department of Education with 64.29% in the Very Good category. While the other three majors, Natural Science Education Department, Language and Arts Education Department, and Social Science Education Department were dominated by Good category with a percentage of 69.70%, 72.22%, and 53.62% respectively. Only 5 (1.67%) students have sufficient level of learning achievement in all of these majors.

The Relationship between Students' Learning-style and Students' Learning Achievement

Third Research Question: Is there any significant relationship between learning style and learning achievement of students of FKIP Universitas Riau in English?

To answer the third Research Question, the data were calculated using SPSS application. In this case, Kendall's Tau-c is chosen as a calculation formula because the data is not normally distributed. In addition, Kendall's Tau-c is also the most appropriate calculation formula because the data owned has different ties (number of categories in both variables). The learning style consists of 15 categories (V-VARK), while the learning achievement consists of 3 categories (Very Good - Sufficient). Before the Kendall's Tau-c testing was done, cross tabulation of the two variables was carried out. The cross tabulation results of these two variables can be seen in Table 3. The results of this cross tabulation are

used in the Kendall's Tau-c test. The results of data analysis about the relationship between learning style and learning achievement of students of FKIP Universitas Riau in English can be seen in the Table 4:

Table 3. Results of Cross Tabulation between Students' Learning Styles and Students' Achievement

		Learning Achievement		
		Very Good	Good	Sufficient
Learning Style	Visual	20	12	0
	Auditory	8	15	1
	Kinesthetic	7	3	0
	Read/Write	18	14	1
	VA	3	5	1
	VR	2	1	0
	VK	2	2	0
	AR	5	2	0
	AK	6	5	0
	RK	6	4	0
	ARK	5	5	0
	VRK	4	4	0
	VAK	8	7	1
	VAR	3	3	0
	VARK	57	59	1
Total		154	141	5

Table 4. Relationship between Students' Learning Style and Students' Learning Achievement

Symmetric Measures					
		Value	Asymp. Std. Error ^a	Approx. T ^b	Sig.
Ordinal by Ordinal	Kendall's tau-c	0.032	0.048	0.672	0.502
N of Valid Cases		300			

^a. Not assuming the null hypothesis.

^b. Using the asymptotic standard error assuming the null hypothesis.

Tables 3 and 4 show the relationship between learning style and learning achievement of students of FKIP Universitas Riau in learning English. According to Table 3, majority of students who get Very Good and Good learning outcomes are those who are categorized in the VARK multimodel category (57 and 59 students). This category is followed by Visual and Read / Write with a total of 32 student each. While the Auditory category consists of 15 students who have Good learning outcomes and 7 students have Very Good. For the Sufficient category, there are 5 students, each of which consists of the Auditory category, Read / Write, VA, VAK, and VARK. Table 4 informs that the Sig. equal to 0.502. At the

95% significance level ($\alpha = 0.05$). It can be seen that the calculated value is greater than α ($0.502 > 0.05$). Therefore, it can be concluded that there is a relationship between the students' learning style and the level of their learning achievement.

As stated earlier, VARK Questionnaire asks questions based on real life situations that are easily understood and used by users, including the students. In responding to these questions the students may choose one or more actions to be taken from the four actions provided. Students who only choose one of the four options are called unimodal, while students who choose more than one actions are called multimodal. Multimodal consists of bimodal, trimodal and quadmodal. Students with two preferred learning styles are called bimodal, while students with three preferred learning styles called trimodal. Students with four preferred learning styles are considered as quadmodal.

The results of data analysis show that the students of FKIP Universitas Riau have various kinds of learning style. As many as 99 students are unimodal. A total of 25 students are aural students. Aural students like to explain new ideas and discuss one topic with other students and lecturers. These students also like to attend lectures and group discussions (Hawk & Shah, 2007). It is also found out that as many as 33 students are Read/Write learners. This number is the highest number in unimodal group. Students who have this learning style like to read textbooks, manuals, hand-outs, web pages, make lists and take notes (Hawk & Shah, 2007). In addition, it also appears that 31 students are visual students. Visual learners prefer maps, diagrams, brochures, highlighters, different colors, images, word images, and different spatial settings in following learning activities (Hawk & Shah, 2007). Kinaesthetic learners in this research amounted to 10 students. These students like field trips in understanding lessons, for example visiting a language laboratory or computer laboratory. They also like the direct approach or use their senses in understanding lessons (Hawk & Shah, 2007).

The finding of this research also proves that learning style of 67.1% of the students of FKIP University of Riau in taking English courses are multimodal: 14.7% are bimodal; 13.4% are trimodal, and 39.0% are quadmodal. This finding is in line with research conducted by Zapalska and Dabb (2002), in which they state that in a learning activity it is not expected that preferences with unimodal become dominant. Zapalska and Dabb also stress that the student should not only have one type of learning style in learning because every style has its own weaknesses and strengths. This finding is also in line with the results of research conducted by Al-Saud (2013) in Saudi Arabia. Al-Saud proved that more than half or 59% of the students participated in his research liked multimodal learning styles.

Based on the findings, it can be said that the students do have diverse learning styles. Experts mention that learning styles affect students' learning behavior. Learning styles will cause different behaviors in the way they perceive, interact, and respond to the learning environment (Mohamad Jafre Zainol Abidin et al, 2011). Therefore, it is important for lecturers to examine and find out the

variations in learning preferences that students prefer. Adjustments can then be made by lecturers to accommodate diverse student needs. Because the learning objectives of English Course at FKIP Universitas Riau are to develop the level of students' language proficiency, the lecturers should prepare certain pedagogical approaches or curriculum designs that are needed to accommodate diverse of students' learning styles. The use of various teaching and learning approaches has great potential value to improve students' learning outcomes and performance. As a result, the students will feel comfortable in learning. In accordance with what was stated by Sternberg (1997), to be able to design effective teaching programs teachers / lecturers must adjust learning activities in accordance with the learning style of their students. Bada, & Okan, B. (2000) also mentions that to improve learning outcomes, good cooperation between students and lecturers about how learning activities should be organized and implemented in the classroom is needed.

4. Conclusion

This research is conducted to find out learning style of students of FKIP Universitas Riau in learning English, their achievement in learning English and to examine if there is a relationship between their learning style and their learning achievement. Based on the findings of the research it can be concluded that various kinds of learning style are possessed by the students of FKIP Universitas Riau in learning English. the majority of which is multimodal: bimodal, trimodal, and quadmodal.

The students' learning style have a significant impact on their academic performance. Majority of students have excellent and good level of learning achievements. Only small number of students categorized in a sufficient level of learning achievement in all of these majors. In other words there is a relationship between learning style of the students of FKIP Universitas Riau and their learning achievement in learning English.

This research has found out some important information about learning styles among students of Riau FKIP Universitas Riau in learning English. There are several recommendations that can be given:

1. The Lecturers need to consider the diversity of learning styles of students and maintain the diversity in designing teaching methods, that will lead to activities in learning.
 2. The lecturers must also help their students to understand their learning style preferences and use them to achieve success in learning.
 3. The Faculty also needs to provide various learning facilities and materials that can accommodate diversity in the classroom by providing visual, auditory, read and write and kinesthetic materials.
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References

- Al-Saud LM. Learning style preferences of first-year dental students at King Saud University in Riyadh, Saudi Arabia: influence of gender and GPA. *J Dent Educ* 2013;77(10):1371-8. PMID: 24098042
- Ang Siew Ling. 2017. Does Learning Style Impact Student Academic Performance? *International Journal of Education, Learning and Training*. Vol. 2 (No.2): 1 -13
- Bada, E. & Zuhail Okan, B. (2000). Students' Language Learning Preferences, *The Electronic Journal for English as a Second Language*. [online] Available : (<http://www.teslej.org/wordpress/issues/volume4/ej15/ej15a1>, accessed on Mei 18, 2019.
- Dunn, R., & Dunn, K. (1986). The Dunn and Dunn learning style model of instruction. [Online] Available: <http://www.unc.edu/depts/ncpts/publications/learnstyles.htm> accessed on August 18, 2012.
- Felder, R.M. & Spurlin, J. E. (2005). Application, reliability, and validity of the index of learning styles. *International Journal of Engineering Education*. 21(1), 103-112.
- Firmender, J. M., Gavin, M. K., & McCoach, D. B. (2014). Examining the Relationship Between Teachers' Instructional Practices and Students' Mathematics Achievement. *Journal of Advanced Academics*, 25(3), 214–236. <http://doi.org/10.1177/1932202X14538032>
- Hamilton, T., & Ekeke. (2013). Conceptual Framework of Teachers' Competence in Relation to Students' Academic Achievement. *International Journal of Networks and Systems*, 2(3), 6.
- Hawk, T.F. & Amit J. Shah, A.J.,. (2007). Using Learning Style Instruments to Enhance Student Learning. *Decision Sciences Journal of Innovative Education*. 5 (1):1-18.
- Hilliard, D. 2001. *Learning Style and Personality Types*. http://www.wncc.edu/student-services/counseling/styles_types/3_personality_types_and_learning.html. accessed on August 26, 2009.
- James, S., D'Amore, A., & Thomas, T. (2011). Learning preferences of first year nursing and midwifery students: Utilising VARK. *Nurse Education Today*, 31, 417-423.
- Keefe, J. W. (1987). *Learning styles: Theory and practice*. Reston, VA: National Association of Secondary School Principals.
-

- Krejcie, R. V, & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30, 607-610.
- Leite, W., Svinicki, M., & Shi, Y. (2010). Attempted validation of the scores of the VARK: Learning styles inventory with multitrait–multimethod confirmatory factor analysis models. *Educational and Psychological Measurement*, 70(2), 323-339.
- Mohamad Jafre Zainol Abidin, et.al, 2011. Learning Styles and Overall Academic Achievement in a Specific Educational System. *International Journal of Humanities and Social Science*. 1(10): 143-152.
- Nemeth, J., & Long, J. G. (2012). Assessing Learning Outcomes in U.S. Planning Studio Courses. *Journal of Planning Education and Research*, 32(4), 476–490. <http://doi.org/10.1177/0739456X12453740>.
- Peraturan Menteri Pendidikan dan Kebudayaan Republik Indonesia No. 23 tahun 2016 tentang Standar Penilaian Pendidikan.
- Peraturan Rektor Universitas Riau No. 3 tahun 2015 tentang Peraturan Akademik Universitas Riau.
- Sternberg, R. J. (1997). *Thinking Styles*. Cambridge, UK: Cambridge University Press.
- Zapalska, A., & Dabb, H. (2002). Learning styles. *Journal of Teaching in International Business*, 13(3), 77-97.

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