

THE INFLUENCE OF LEARNING STYLES, MOTIVATION, AND TYPES OF SCHOOL ON STUDENTS' ENGLISH ACHIEVEMENT AT JUNIOR HIGH SCHOOLS IN BANDAR LAMPUNG

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Abstract

This research aims to find out whether there is any significant interaction between motivation and learning style on students' English achievement in Bandar Lampung. This research is a non-experimental study with variant analysis study. The research is implemented at junior high schools in Bandar Lampung involving 430 students from schools categorized as public schools with high rating, private schools with high rating, public schools with lower rating, and private schools with lower rating. The variables consisting of one dependent variable, that is the students' English Achievement (Y), two independent variables: motivation (X1) and learning styles (X2), and one intervention variable: types of school (Z1)

Data for students' English achievement were taken by giving a set of test in which validity and reliability are tested. Data for motivation and learning styles were taken from students' responses to multiple choice questionnaire each consisting of 40 questions.

The results of the analysis show: a) there is no significant interaction between motivation and learning styles on students' English Achievement. This means that the combination of motivation and learning styles cannot distinguish between high achieving students and the lower ones. b). Learning styles have significant influence on students' English achievement. Students with different learning styles have different English achievement. c). Motivation does not have significant influence on students' English achievement. Students with different motivation did not have different result of English achievement. d) Types of school have a significant effect on the students' English achievement

Keywords: motivation, learning styles, types of school, English achievement, junior high schools, Bandar Lampung

1. INTRODUCTION

Many factors influence the success or failure of second and foreign language learning. Some of the factors are coming from the external side of the learning called external factors, and some coming from the internal called internal factors (see Brown 2009). Among the external factors are: school environment, teachers, learning facilities, etc. Among the internal factors are: students' age, motivation, attitude, learning styles, learning strategies, and other affective factors.

Two factors among those internal factors are learning styles and motivation are applied in this research. Many studies have discussed the roles of learning styles and motivation on students achievement in foreign language learning and general subject. The studies have resulted in different findings and conclusions. This research studies use different theoretical and research paradigms.

In terms of the relationship between learning styles and general subjects, some studies have tried to find out this relationship. Among others are in the studies of Arianti (2013), Dewi Utami (2013), dan Bakri (2012), all seem to agree that there is a significant correlation between students' learning styles and their achievement on their learning achievement of some content learning.

In his research study, Yufriyul (2010) stated that students of junior and senior high schools in Tulang Bawang Regency have different achievement in English based on their learning styles. Likewise Yusep Panduwina (2012) in an experiment of writing ability of students in Lampung Polytechnic found that

students with concrete learning style produce better writing results than students with analytic learning styles.

The studies of Sadewo (2011), Arianti (2013), Dewi Utami (2013), dan Bakri (2012) have shown that there is a significant correlation between students' learning motivation and their learning achievement. The higher the level of motivation the students have, the better students would achieve in their learning effort. However, there are some differences in research and construct paradigms among those studies resulting in different results of studies. A more compact research on this matter will give us a clearer idea on how learning style and motivation affect learning particularly the learning of English as a second/foreign language in Indonesia.

This current study attempts to find out whether there is any significant effect of learning styles, motivation and types of schools on students' achievement in learning English at junior high schools in Bandar Lampung city.

2. LITERATURE REVIEW

Students' learning style preferences have been a major concern of some research. Reid (1987), for example, based on survey data, distinguished four perceptual learning modalities:

1. visual learning (for example, reading and studying charts);
2. auditory learning (for example, listening to lectures or audio tapes);
3. kinaesthetic learning (involving physical responses); and
4. tactile learning (hands-on learning, as in building models).

He then administered a questionnaire to 1.388 students of varying language backgrounds to investigate their preferred modalities. This revealed that the learners' preferences often differed significantly from those of native speakers of American English. They showed a general preference for kinaesthetic and tactile learning styles, and for individual as opposed to group learning.

Willing (1987) investigated the learning styles of 517 adult ESL learners in Australia. Based on their responses to a 30-item questionnaire, Willing tried to identify how differences in cognitive learning styles affected learners' preferences in six different areas:

1. preferences for particular kinds of classroom activities;
2. preferences for particular types of teacher behaviour;
3. preferences for particular grouping arrangements;
4. preferences for particular aspects of language which need emphasis;
5. preferences for particular sensory modes, such as visual, auditory, or tactile learning; and
6. preferences for particular modes of learning on one's own outside class.

It was found that differences in cognitive styles affected learners' preferences for particular approaches to learning. For example, concrete learners tended to choose the following:

- In class, I like to learn by games.
- I like to learn English by working in pairs.

Learners with analytical learning styles, however, reported the following preferences:

- I like to study grammar.
- I like the teacher to let me find my mistakes.

Although Richards and Lockhart (1994) argue that such information can prove to be significant as to whether both teachers and learners approach learning in the same way, they still oppose the idea of putting "learners into boxes labelled according to cognitive styles" (pp. 62-63). Nunan (1989) points out that accommodating learners' needs and preferences is vital in designing a learner-centered curriculum. Such importance given to students' feelings has also been stressed in Barkhuizen's (1998) study, in which he reports an investigation of high school ESL learners' perceptions of the language teaching-learning activities presented in their classes. The outcome of such investigation surprised the teachers in that perceptions of teachers and students differed greatly from each other.

A series of researches by Yufrizal (2000,2009) also have shown that learning styles influence significantly students' English achievement in Indonesia. He found that students with communicative learning styles tend to have higher achievement than students with other learning styles.

3. RESEARCH METHODOLOGY

A non-experimental quantitative with variant analysis (Gal et al. 1998) is used to achieve the objective of the study. The method used in the study is cross-sectional with a design of non-correlational ex-post de

facto (Setiyadi: 144). In this case, the research examines phenomena exist during the research without giving any treatment to the subjects, in which samples were given tests and questionnaire to get the data for students' achievement, learning styles, and motivation.

Population of the research is all grade 9 students at junior high schools in Bandar Lampung. The sample was taken through purposive random sampling, i.e. by taking students from four kinds of schools: high-rated public schools, high-rated private schools, lower-rated public schools and lower-rated private schools. Data for students' English achievement were gained by giving a set of English proficiency test (focusing on reading ability). Data for students's learning styles were taken by giving a set of questionnaire developed by Willing (1988). The questionnaire comprises 40 items with alternative answers. For motivation data, a set of standardized questionnaire was given to the students.

All data were then statistically analyzed using *Multivariate Analysis of Variance* (MANOVA) to see the interaction among the variables. In order to see the effect of learning styles and motivation toward students' English achievement, one way *Analysis of Variance* (ANOVA) was used.

4. RESULTS AND DISCUSSIONS

4.1 Learning styles

In order to identify students' learning styles, a set of questionnaire consisting of 40 questions with multiple choice alternatives was given. The alternatives are: 1 strongly disagree, 2 disagree, 3 agree, and 4 strongly agree. All students' answers were analyzed through data reduction factor analysis resulting four types of learning styles: a) communicative, b) concrete, c) authority oriented, and analytic learning styles. Another style was added, that is 5) undecided or mixed styles referring to students with combination of style or non-dominating style identified.

The number and percentage of students' learning styles and their English achievement is shown in the following table.

Table 1: Students' English achievement based on their learning styles.

No.	Learning Styles	Frequency	Percentage
1.	Communicative	190	44,2
2	Concrete	85	19,8
3.	Authority-oriented	49	11,4
4.	Analitic	98	22,8
5.	Undecided	8	01,8
	Total	430	100

Table 1 shows that the highest percentage is students with communicative learning style of 190 students (44,2%). The second highest percentage is students with analytic learning styles with 98 students (22.8%), This is followed by students with concrete learning style of 85 students (19.8%), authority-oriented learning style of 49 students (11.4%) and the least percentage is students with undecided learning style (01,8%).

4.2 Learning motivation

To measure the students' motivation, a set of validated questionnaire consisting of 40 questions with four alternative: a=1, b=2, c=3 dan d=4 was used. Students' motivation was accumulated resulting three categories of motivation: high, middle, and low motivation. The distribution of students' motivation based on their English achievement is illustrated in the following table.

Table 2: Distibution and frequency of students' motivation

No.	Learning motivation	Frequency	Percentage
1.	< 100 low	67	15,6
2	101-110 middle	223	51,9
3.	>111 high	140	31,5
	Total	430	100%

Table 2 shows that 223 students (51,9%) have middle range motivation, 140 (31,5%) students have high motivation, and 67 (15,6%) students have low motivation.

4.3 The types of school

There are four types of schools where the students were recruited as the samples of the research: 1) high-rated public schools, 2).high-rated private schools, 3) low- rated-public schools, and 4).low-rated private schools. Data of students' English achievement are summarized in the following table:

Tabel 3: Distribution of students' English achievements based on school types

Score	Descriptives					
	N	Mean	Std. Deviation	Std. Error	Minimum	Maximum
1	154	67.9675	11.14164	.89782	35.00	90.00
2	68	59.9265	14.31763	1.73627	27.00	87.00
3	126	36.5159	9.76421	.86986	20.00	65.00
4	82	41.9268	10.05022	1.10986	22.00	70.00
Total	430	52.5140	17.72487	.85477	20.00	90.00

Note: 1= High-Rated Public Schools 2= High-Rated Private Schools

3= Low-Rated Public Schools 4= Low- Rated Private Schools

The table shows that the mean score of students' English achievements from high- rated public school was 67.97 (N=154), the mean score of students' English achievements from high-rated private schools was 59.92 (N=68), the mean score of students' English achievements from low-rated public schools was 36,5 (N=126), and the mean score of students' English achievements from low-rated private schools was 41.5 (N=82).

4.4 The influence of learning styles on students' English achievement

The following table shows the descriptive statistic of students' average score in English based on their learning styles.

Table 4: Descriptives of learning styles and students' English achievement

Score						
	N	Mean	Std. Deviation	Std. Error	Minimum	Maximum
Comm.	190	55.9368	18.03425	1.30834	22.00	87.00
Conc	85	54.5647	16.39356	1.77813	25.00	85.00
Auth	49	45.0816	14.85883	2.12269	20.00	80.00
Anal	98	47.5204	17.58527	1.77638	20.00	90.00
Undecided	8	56.1250	18.13786	6.41270	30.00	75.00
Total	430	52.5140	17.72487	.85477	20.00	90.00

The table shows that 190 students with communicative learning style gained the average score of 55.94 (SD=18.03). Eighty five (85) students with concrete learning style had the average score of 54.56 (SD=16.39). The number of students with authority-oriented was 49 with the average score of 45.08 (SD=14,86). For 98 students with analytic learning style, the average score was 47.52 (SD=17.58). Finally, 8 students with undecided-learning style had an average score of 56.12 (SD=18.14).

In order to find out the difference of English average score of students with different learning styles, an ANOVA test was executed. The result of the statistical analysis is shown in the following table.

Table 5: The result of ANOVA test based students' learning styles

ANOVA					
Score					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	7838.272	4	1959.568	6.561	.001
Within Groups	126941.144	425	298.685		
Total	134779.416	429			

The table shows that the F count of the statistical analysis is 6.561 and is higher than the F table. This means that there is a significant influence of the learning styles on student' average score of English achievement. Students with different learning styles gained different average score of English achievement at 0.001 significant level.

4.5 The influence of motivation on students English Achievement

Students were found to have three levels of motivation: low, middle, and high. The descriptive statistic of students' English score based on their level of motivation is presented in table 7.

Table 6: The average score of English based on students' level of motivation

Descriptives						
Score						
	N	Mean	Std. Deviation	Std. Error	Minimum	Maximum
1	68	49.6471	18.21658	2.20908	20.00	87.00
2	221	53.0452	17.62379	1.18550	20.00	87.00
3	141	53.0638	17.63730	1.48533	22.00	90.00
Total	430	52.5140	17.72487	.85477	20.00	90.00

Note: 1 = students with low motivation
 2 = students with middle motivation
 3 = students with high motivation

Table 6 shows that students with low motivation have an English achievement average score of 49.64 (SD = 18.21). The number of students with middle motivation is 221 with an English achievement average score of 53.05 (SD=17.62) and students with high motivation 141 with an English achievement average score of 52.51 (SD = 17.72).

The result of ANOVA test on motivation and students' average score of English is shown in table 7.

Tabel 7: The result of ANOVA test on motivation and English achievement

ANOVA					
Score					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	663.914	2	331.957	1.057	.348
Within Groups	134115.502	427	314.088		
Total	134779.416	429			

The ANOVA test on students motivation and their average score of English shows that the F count is 1.057 which is smaller than the F table for the number of sample. This means that there is no significant effect of motivation on students' English achievement. Students with different levels of motivation do not differ significantly in their achievement of English.

4.6 The influence of school types on students English achievements

The statistical analysis of differences of students' English achievement is presented in the following table:

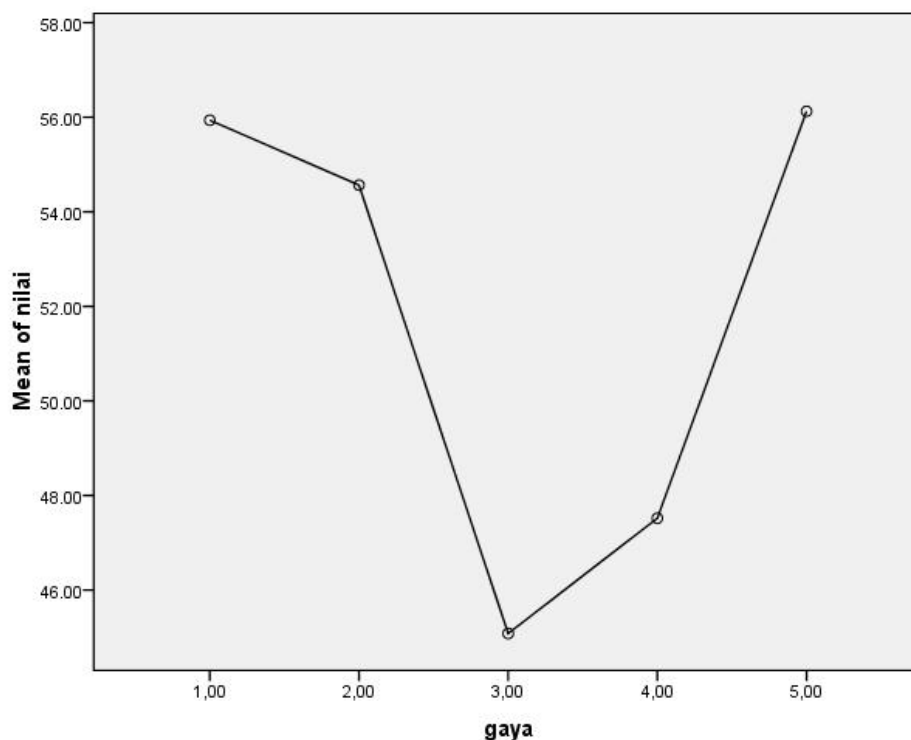
Table 8 : ANOVA of Students' English achievements based on types of schools

ANOVA					
Nilai					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	82571.310	3	27523.770	191.234	.001
Within Groups	61313.036	426	143.927		
Total	143884.347	429			

The table shows that the F value of the analysis of variance of students' English achievements from four types of schools was 191.234 which is higher than the F table. This means that there is a significant influence of school types on students' English achievements. The mean score of English of students from high-rated public schools differ from the mean score of students from other types of schools, and so on.

4.7 Discussion of Findings

The statistical analysis showed that there is a significant influence of learning styles and students' English achievement at junior high schools in Bandar Lampung. There are significant differences of students' average score in English of students with different learning style ($F=6.561$) at the significant level of 0.001. Differences of students' English achievement according their learning styles are illustrated in the following figure.



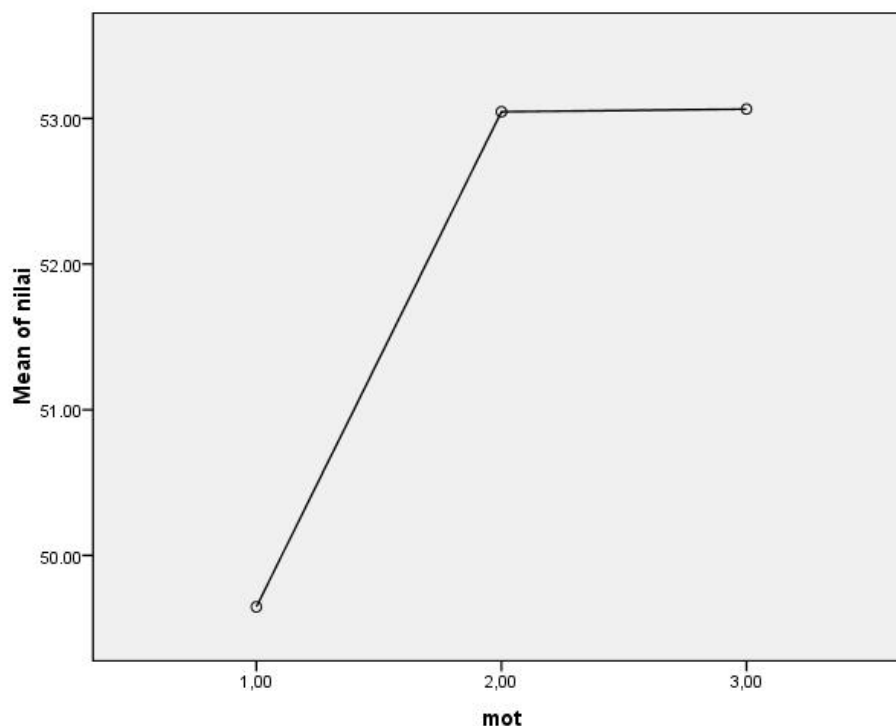
Note: Learning styles 1 = communicative 2= concrete 3= authority-oriented
4= analytic 5 = Undecided

Figure 1: Students' average score of English based on their learning styles

Figure 1 shows that students with communicative and undecided learning styles have the highest scores in English compared to students with other learning styles. Students with concrete learning styles had the third highest average score, higher than students with analytic and authority-oriented learning styles. The lowest average scores were gained by the students with authority oriented styles. This result of analysis confirms previous studies on the role of learning styles on students' English achievement using the same model of learning style measurement. (None Tis'ah, 2011, dan Yusep Panduwina, 2012). In his research study, Yufri (2009) stated that students of junior and senior high schools in Tulang Bawang Regency have different achievement in English based on their learning styles. Likewise Yusep Panduwina (2012)

in an experiment of writing ability of students in Lampung Polytechnic found that students with concrete learning style produced better writing results than students with analytic learning styles.

On the aspect of motivation, the statistical analysis of the current research has shown that motivation does not have a significant effect on students' English achievement at junior high schools in Bandar Lampung. Students with different level of motivation do not differ in their English achievement. This can be illustrated as in the following figure.



Note: Students' motivation 1 = low, 2 = middle 3= high

Figure 2: Means of students' motivation on their English achievement

Figure 2 shows that students with high motivation have the average score relatively similar to students with middle level of motivation. The highest and the middle level motivation students have relatively higher average score of English achievement. This result seems to contradict other previous studies on the effect of motivation on students' achievement. Sadewo (2011), Arianti (2013), Dewi Utami (2013), and Bakri (2012) have shown that there is a significant correlation between students' learning motivation and their learning achievement. The higher the level of motivation the students have, the better students would achieve in their learning effort. In this case, we assume that differences in the result of analysis of the current research and other previous studies of motivation are due to the statistical analysis model. The current study looks at the motivation by comparing the students' achievement according to their level of motivation using ANOVA test paradigm, while other previous studies use correlational and regression test analysis.

The random patterns of learning styles and motivation on students' achievement also contradict with the previous studies on learning style and motivation. Arianti (2013), Dewi Utami (2013), and Bakri (2012) all seem to agree that there is a significant correlation between students' learning styles and their achievement on their learning achievement of some content learning. Again, here the differences between the results of the current research and the previous studies are due to differences in formulating paradigm both in terms of selecting construct of learning styles and motivation as well as the statistical analysis paradigm.

In terms of construct, many researches on learning style use senses of visual, audio, and kinaesthetic as the basis for categorizing students' learning style. Meanwhile, the construct offered by Willing (1988) was based on the combination of senses and other affective factor to categorize students who learn a second/foreign language. This has resulted in the category of learning styles into communicative, concrete, authority oriented, and analytical learning style to denote to preference one has in learning a second/foreign language.

5. CONCLUSION AND IMPLICATIONS

From the analysis, it can be concluded that:

1. Learning styles have a significant influence on the students' English achievement at junior high schools in Bandar Lampung. Students with different learning styles have different learning achievement. The highest score in English achievement was gained by students with communicative and undecided learning styles. A difference is found between the result of the current study and the previous studies in terms of construct paradigm. Learning style paradigm based on the students' learning preferences on senses, cognitive style and affective style as proposed by Willing (1988) appear to be more accurate than the categorization based on sense preference only.
2. Motivation does have a significant influence on students' learning English achievement. Students with high motivation do not have different English achievement from students with middle level of motivation but relatively differ from students with low level motivation.
3. The types of schools have a significant influence on the students' English achievement. Students from high-rated schools have higher mean scores of English achievement than students from high-rated private schools, low-rated public schools and low-rated private schools, while students from high rated private schools have higher mean scores than those from low-rated public schools and low rated private schools.

The implications of the research are:

1. In order to achieve the objective of learning English at schools, the teachers should pay attention to aspects related to students' motivation and learning styles. Based on their learning styles, students have preferences for learning a language that make them enjoy learning the language. Students with communicative learning style seem to enjoy learning a language by engaging in communication with other people. Students with concrete learning style seem to enjoy learning a language by getting evidence from written or oral language use. Others seem to to enjoy learning language by listening to the teachers' explanation of the language. Therefore, the teachers are recommended to vary his/her teaching by giving different types of learning tasks in their instruction.
2. Teachers also should pay attention to motivation. The learning tasks should also arouse students' motivation. Teachers must be able to maintain their students who have high motivation and attempt raise to those who have middle and low level of learning motivation. This can be done by giving evidence on what benefits students can get when they are able to communicate in a foreign/second language.

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