

Analysis of Language Learning Styles and Language Achievements of Higher Education Institution Students in Lampung

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Abstract

The aims of this study are firstly to find out whether tasks that are designed based on the students' learning style specification are compatible with students' language achievements, and secondly to find out factors that might affect the language achievements and the learning styles. The research was undertaken in 6 private tertiary educations involving first year students who learn English as a compulsory subject at these institutions. A 40-item questionnaire adapted from [Yufrizal \(2007\)](#) was distributed to 380 students resulting students with four learning styles: communicative, concrete, authority oriented and analytic. One group repeated measures design was carried out in this research. The students are taught and tested in four different assignment adjusted to their learning styles. The results show that there is a congruency between students' learning style and their designed tasks. Students with communicative learning style were more dominant in conversation and students with analytic learning style were more dominant in tasks that required language analytical skill. Furthermore, gender seemed to be an important factor that contribute to the students' language achievement and learning styles.

Keywords: Learning styles; Language achievements; Higher education.



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1. Introduction

Every learner has his or her own general approach to, or general preference about learning, which is probably more important than their use of a particular learning strategy or technique ([Brown, 2000](#)). The overall idea of consequence of this is that, either directly or indirectly. The learning process and learning experience each individual has will be modified differently, which in turn, bring about dissimilar learning achievement. Learning styles have been one of the many kinds of individual differences that affect learning besides other important variable such as age, aptitude, general intelligence, motivation and socio-cultural factors ([Skehan, 1989](#)). [Yufrizal and Holiday \(2011\)](#) suggest that learning style is an important factor in several areas including learners' academic achievement, how learners learn and teachers teach, and learner- teacher interaction. This significant role of learning styles could be attributed to the fact that after better self awareness of what learning styles they have, learners and teachers would try more organize and effective approaches to their learning and teaching process, respectively; it is consistent with the logic of lifelong learning that suggest that learners' motivation to learn will be elevated if they know more about their own strengths and weaknesses as learners ([Coffield et al., 2004](#)). Dissimilarity of the ways learners is essential that teacher should recognize the learning style differences among their learners and teach in a manner in which all learning styles are considered, if possible.

Although learning styles inevitably differ among students in the classroom, [Dunn R. and Dunn \(1978\)](#) say that teachers should try to make changes in their classroom that will be beneficial to every learning style. Some of these changes include room redesign, the development of small-group techniques, and the development of classroom activity packages.

The kind of task type which is given by the teacher is also included into class room activity packages. If teachers can give students a kind of task that is relevant to their learning styles, the performances are usually better. When the learners' learning styles are matched congenial with the instructional styles, their motivation, performances, and attainments will be enhanced ([Brown, 1994](#)). This is enhanced by [Yufrizal et al. \(2017\)](#) who found that learning styles contribute to the quantity and quality of interaction of EFL higher institution students in Indonesia.

Speaking task is an activity that requires learners to participate in a non-threatening environment, emphasis is on meaning, to arrive at an outcome but the outcome is not that important, involvement in the process of learning is more important. Task is not a substitute for a good topic but it increases motivation and involvement. It provides a framework for the classroom activities.

There are some researchers who have done a research in learning style field; [Windu \(2009\)](#), in his research found that there is a significant interaction between the writing learning models of individual and group work learning models and the students learning style towards their writing English Achievement. Meanwhile, [Nonetis'ah](#)

(2009) who also focuses on her research in students' learning style found that there is a significant difference in English skill among students with concrete learning style with students who have learning style communicative orientation instruction, analytical and students with a mixture of style. Claxon and Murrell (1987) in their research also found that students who were taught in ways that matched with their learning style obtained higher reading scores and viewed their educational experience more positively.

Bidabadi and Yamat (2012) in their research shows that there is a significant positive correlation between the learners' English listening proficiency levels and their learning style preferences. Meanwhile Teng (2009) research also shows that there is a relationship between reading methods and learning styles towards students' reading comprehension in English.

Different from the previous researches which have been conducted in writing learning models, reading comprehension, listening proficiency and student's English ability, the purposes of this study is to find out whether there is a significant interaction between specifically design tasks and the students' learning style in learning English as a Foreign Language at higher education institutions in Indonesia.

2. Students' Preference in Learning

Educational institutions are moving towards more emphasis on students' preferences in learning. Research shows that if teachers can give students instructions relevant to their learning styles, the performances are usually better (Dunn and Price, 1979; O'Brien, 1989; Oxford and Ehrman, 1993). When the learners' learning styles are matched congenial with the instructional styles, their motivation, performances, and attainments will be enhanced (Brown, 1994). This notion is similar to what Felder and Henriques (1995) propose, i.e. that learning style deal with the ways in which an individual characteristically acquires, retains and retrieves information. These preferred ways are individual differences that may be attributed to cognitive, emotional and sensory factors (Willing, 1988).

Learning styles may be defined in multiple ways, depending upon one's perspective. Here are a few definitions of learning styles. Brown (2000) defines learning styles as the manner in which individuals perceive and process information in learning situations. He argues that learning style preference is one aspect of learning style, and refers to the choice of one learning situation or condition over another. Celce-Marcia (2001) defines learning styles as the general approaches—for example, global or analytic, auditory or visual—that students use in acquiring a new language or in learning any other subject. The manner in which a learner perceives, interacts with, and responds to the learning environment. Each learner has his or her own learning style(s) that is (are) employed when doing a specific task. They learn in different ways; some tend to learn by seeing, others by hearing and some desire to learn on their own, while others prefer to learn by interacting with their peers (Riazi and Riasati, 2007).

A learning style is a student's consistent way of responding to and using stimuli in the context of learning. Keefe (1979) defines learning styles as the “composite of characteristic cognitive, affective, and physiological factors that serve as relatively stable indicators of how a learner perceives, interacts with, and responds to the learning environment. While according to Willing (1988), learning style is inherent and pervasive and is a blend of cognitive, affective, and behavioral elements. He stressed that an individual's learning style is an intrinsic and innate behavior that individual has in him which is influenced by several factors in their life that has caused them to have a particular learning style or preferences. Thus, learning styles are not really concerned with *what* learners learn, but rather *how* they prefer to learn.

Many people recognize that each person prefers different learning styles and techniques. Learning styles group common ways that people learn. Everyone has a mix of learning styles. Some people may find that they have a dominant style of learning, with far less use of the other styles. Others may find that they use different styles in different circumstances. There is no right mix. Nor are your styles fixed. You can develop ability in less dominant styles, as well as further develop styles that you already use well.

Learning styles in education refers to the contested hypothesis of systematic differences in individuals' natural or habitual pattern of acquiring and processing information in learning situations. A core concept is that individuals differ in how they learn. The idea of individualized learning styles originated in the 1970s, and has greatly influenced education. In fact, there is a stunning variety of learning styles. Most people possess a dominant or preferred learning style. Learning styles may also prove useful for helping students with mastering meta learning (being aware of and taking control of one's learning). However, one or more of these styles is usually dominant. This dominant style defines the best way for a person to learn new information. This style may not always be the same for all tasks. Learners may prefer one style of learning for one task, and a combination of others for another task

All these definitions of learning styles are directed towards the notion of the preferred ways applied by individuals to concentrate on, process, internalize and retain new information; a preferred way implies that it will be effective for those who prefer it, and less effective for those who prefer another learning style. However, non-preferred styles are not necessarily exclusive; they can be learned, although it would be probably hard, especially for those who have strong or extreme preferred styles.

Yufrizal (2007) provides one example of research on learning style by applying Willing's model of learning categorizes. This studies has at least shown how Willing's model which has been adapted by him could be applied to categories second/ foreign language learner's learning style preference.

That is why the researcher is going to adopt Yufrizal's questionnaire which also has adapted from Willing's learning style categories, since this categories can be applied to foreign language learner especially in Indonesian context. Beside that, Willing's questionnaire is also chosen as the instrument because it is a rather updated one among the very few questionnaires” (Kolb, 1976) that examined learner types, which were of great “practical usefulness” to teachers (Willing, 1988). Compared with other learning style constructs such as being field dependent

and field independent (Witkin, 1976), reflective versus impulsive (Kagan, 1965), or deep-elaborative and shallow-reiterative (Schmeck, 1983), which are more general and educationally oriented, the learner types identified by Willing and the learning methods mentioned in the questionnaire seem more comprehensive, applicable and relevant to language learning contexts.

3. Method

This research is a quantitative quasi experimental research involving students from 6 higher education institutions in Bandar Lampung.

3.1. Identifying Learning Styles

In order to identify students' learning styles, a set of questionnaire consisting of 40 questions with multiple choice alternatives were 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 distribution of respondents across 6 (six) higher education institutions can be seen from the following table

Table-4.1. Distribution of sample from 6 higher education institutions

| No | University | N | % |
|----|-----------------|-----|------|
| 1. | A2L | 31 | 8,1 |
| 2. | AkperPancaBakti | 34 | 9,0 |
| 3. | STKIP PGRI | 29 | 7,6 |
| 4. | Darma Jaya | 56 | 14,8 |
| 5. | USBRJ | 165 | 43,4 |
| 6. | UTB | 65 | 17,1 |
| | Jumlah | 380 | 100% |

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

Table-4.2. The descriptive statistics of respondents' learning styles

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------|-----------|---------|---------------|--------------------|
| Valid | 1,00 | 63 | 16,6 | 16,6 | 16,6 |
| | 2,00 | 97 | 25,5 | 25,5 | 42,1 |
| | 3,00 | 88 | 23,2 | 23,2 | 65,3 |
| | 4,00 | 47 | 12,4 | 12,4 | 77,6 |
| | 5,00 | 85 | 22,4 | 22,4 | 100,0 |
| | Total | 380 | 100,0 | 100,0 | |

3.2. Designing Learning Tasks

Based on Yufrizal (2007) finding, there are some characteristics of learning preferences based on the learners' learning styles. The following table summarizes the characteristics of learning preference and the suggested tasks that are proposed in this study.

Table-4.3. Matrix of Design Task Based on Learning Style

| No | Learning Style Category | Characteristic | Task Design |
|----|-------------------------|---|--|
| 1. | Concrete | Concrete learners employ very direct means of taking in and processing information. They disfavor learning monotonously and written work. They have strong desire to be entertained by using games, and enjoy conducting experiments, exploring and performing tasks | Learning task design which involved into role play activities |
| 2. | Communicative | Communicative learners have a desire for a communicative learning approach, like to learn by watching, listening to native speaker, talking to friends in English and watching television in English. Learning new words by hearing them, and learning by conversation. | Learning task design which involved into discussions group and also information change activities. |
| 3 | Authority | Authority learners prefer the teacher to explain everything to them, like to have their own textbooks, to write everything in a notebook. They depend on their teachers in learning, textbooks, and their notebooks. | Learning task design which involved into memorizing drill activities and also lecturing technique |
| 4 | Analytical | Analytical learners prefer to analyze carefully | Learning task design |

| | | | |
|--|--|---|--|
| | | structures and great interest in studying grammar, studying English book and reading news paper, studying alone, finding their own mistakes and working on problems set by the teacher. | which involved into problem solving activities |
|--|--|---|--|

Based on the matrix above, there are four tasks that were designed to answer the research question. The tasks are: lab work tasks, speaking tasks, writing tasks, and grammar analysis task.

4. Results and Discussion

After the implementation of the tasks, a set of test was given to the participants. The tests are vocabulary test as a compatible task for students with concrete learning style; speaking test as a compatible task for students with communicative learning style; grammar test as a compatible task for students with authority-oriented learning style; and a writing task as a compatible task for students with analytic learning style.

Table 4.4 below summarizes the descriptive statistics of students' score on the four tests based their learning styles.

Table-4.4. Descriptive statistics of students' score based on their learning styles

| | | N | Mean | Std. Deviation | Std. Error | Minimum | Maximum |
|----------|-------|----|---------|----------------|------------|---------|---------|
| Lab work | 1,00 | 24 | 63,3750 | 11,35136 | 2,31709 | 41,00 | 78,00 |
| | 2,00 | 24 | 66,8333 | 7,83896 | 1,60012 | 50,00 | 76,00 |
| | 3,00 | 24 | 68,7917 | 6,82692 | 1,39354 | 50,00 | 78,00 |
| | 4,00 | 24 | 64,5417 | 7,92343 | 1,61736 | 41,00 | 75,00 |
| | Total | 96 | 65,8854 | 8,77301 | ,89539 | 41,00 | 78,00 |
| Speaking | 1,00 | 24 | 64,0556 | 11,04128 | 2,25379 | 41,67 | 78,67 |
| | 2,00 | 24 | 67,0000 | 7,32015 | 1,49422 | 50,00 | 77,33 |
| | 3,00 | 24 | 69,5000 | 6,03212 | 1,23130 | 52,33 | 78,67 |
| | 4,00 | 24 | 57,9903 | 21,15558 | 4,31836 | 6,33 | 74,33 |
| | Total | 96 | 64,6365 | 13,35235 | 1,36277 | 6,33 | 78,67 |
| grammar | 1,00 | 24 | 63,0833 | 11,57928 | 2,36361 | 41,00 | 78,00 |
| | 2,00 | 24 | 66,0417 | 7,68103 | 1,56788 | 50,00 | 78,00 |
| | 3,00 | 24 | 68,3750 | 6,42558 | 1,31162 | 52,00 | 78,00 |
| | 4,00 | 24 | 65,4583 | 8,53626 | 1,74246 | 44,00 | 80,00 |
| | Total | 96 | 65,7396 | 8,82967 | ,90117 | 41,00 | 80,00 |
| Writing | 1,00 | 24 | 73,7500 | 9,51086 | 1,94140 | 53,00 | 85,00 |
| | 2,00 | 24 | 71,6667 | 4,72428 | ,96434 | 62,00 | 78,00 |
| | 3,00 | 24 | 71,5417 | 8,25664 | 1,68538 | 52,00 | 83,00 |
| | 4,00 | 24 | 68,5000 | 9,39473 | 1,91769 | 52,00 | 85,00 |
| | Total | 96 | 71,3646 | 8,28965 | ,84606 | 52,00 | 85,00 |

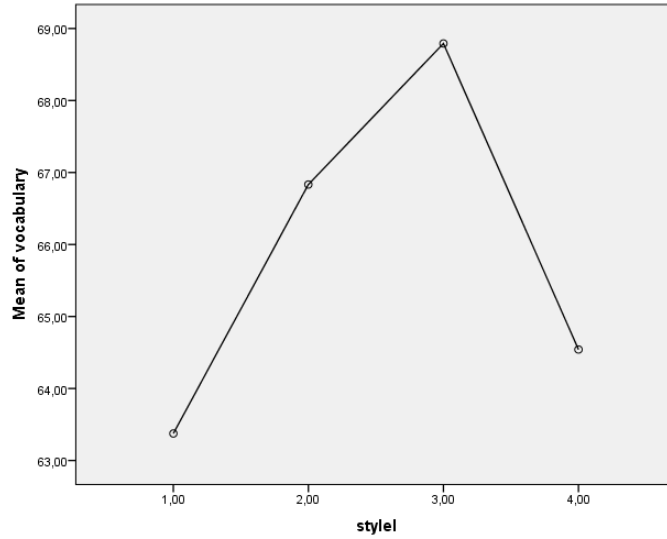
The following table summarizes the result of Analysis of Variance (ANOVA) of students' scores on vocabulary test, speaking test, grammar test, and writing test.

Table-4.5. ANOVA of four test based on students' learning styles

| | | Sum of Squares | df | Mean Square | F | Sig. |
|----------|----------------|----------------|----|-------------|-------|------|
| Lab work | Between Groups | 418,865 | 3 | 139,622 | 1,864 | ,141 |
| | Within Groups | 6892,875 | 92 | 74,923 | | |
| | Total | 7311,740 | 95 | | | |
| Speaking | Between Groups | 1769,989 | 3 | 589,996 | 3,579 | ,017 |
| | Within Groups | 15167,107 | 92 | 164,860 | | |
| | Total | 16937,096 | 95 | | | |
| Grammar | Between Groups | 340,115 | 3 | 113,372 | 1,476 | ,226 |
| | Within Groups | 7066,375 | 92 | 76,808 | | |
| | Total | 7406,490 | 95 | | | |
| Writing | Between Groups | 336,448 | 3 | 112,149 | 1,666 | ,180 |
| | Within Groups | 6191,792 | 92 | 67,302 | | |
| | Total | 6528,240 | 95 | | | |

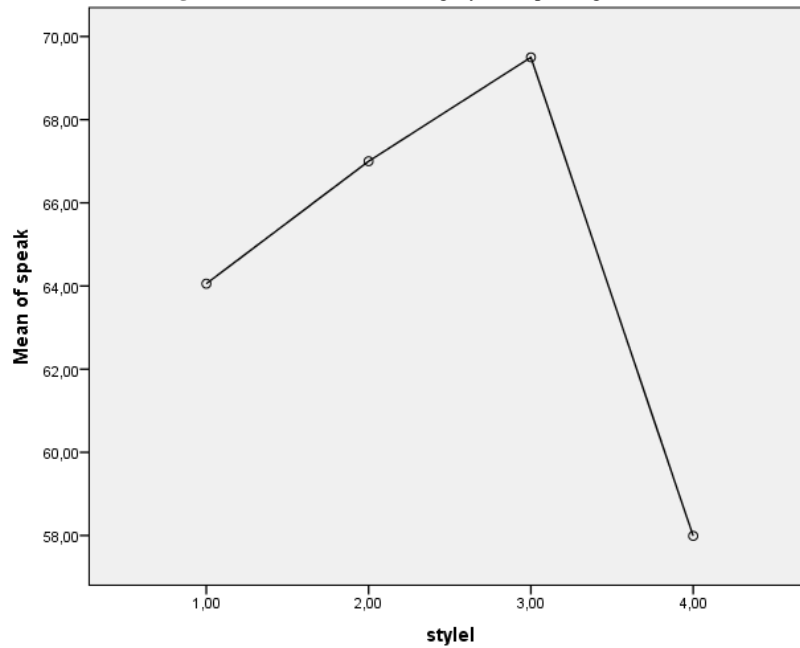
Based on the ANOVA results, it was found that there is no significant significant difference among students with different learning styles on the four learning tasks designed for this study. However, a scheffe post hoc design showed there are relative differences among tasks based on students' learning style.

Figure-4.1. The effect of learning style on lab work tasks

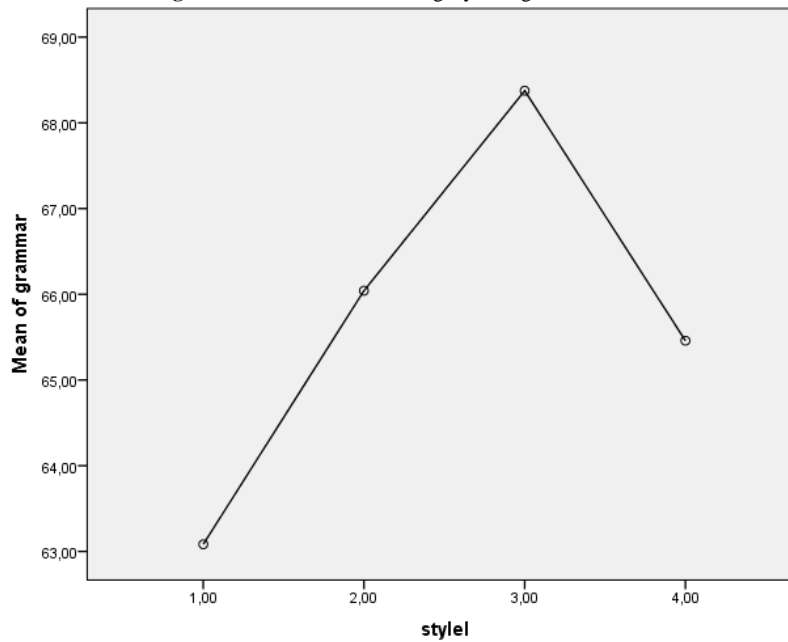


The graph shows that in terms of lab work task which represents the type of task preferred by students with concrete learning style, it was found that there is no relationship between learning styles on the type of task. The highest score was achieved by the students with authority-oriented learning style and the lowest score achieved by students with concrete learning style

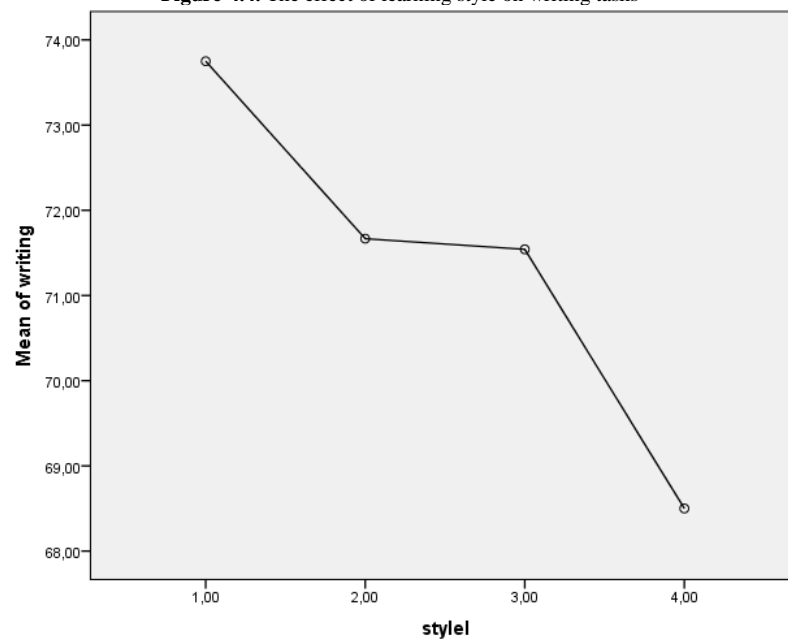
Figure-4.2. The effect of learning style on speaking tasks



The graph shows that in terms of speaking task which represents the type of task preferred by students with communicative learning style, it was found that there is no relationship between learning styles on the type of task. The highest score was achieved by the students with authority-oriented learning style and the lowest score achieved by students with analytic learning style

Figure-4.3. The effect of learning style on grammar tasks

The graph shows that in terms of grammar task which represents the type of task preferred by students with concrete learning style, it was found that there is a matched relationship between learning styles on the type of task. The highest score was achieved by the students with authority-oriented learning style and the lowest score achieved by students with concrete learning style.

Figure-4.4. The effect of learning style on writing tasks

The graph shows that in terms of writing task which represents the type of task preferred by students with analytic learning style, it was found that there is no relationship between learning styles on the type of task. The highest score was achieved by the students with concrete learning style and the lowest score achieved by students with analytic learning style.

5. Discussion

The most important finding of this study is that although there is no significant effect of learning style toward the learning tasks, there is a relative difference in achievements of tasks by students with different learning style. The most dominant students in performing the tasks were the students with concrete and communicative. This is in line with the previous findings by [Yufrizal \(2007\)](#) and [Nonetis'ah \(2009\)](#) who found that the most dominant types of learning style in learning language were the students with concrete and communicative learning styles. This might be due to the fact that the sample recruited for the current study was the students who learning English as a general subject not as specific purpose subject.

The result of this finding supported the previous research by Dunn and Price (1979) in Jhaish (2010) who said that if teachers can give students a kind of task that is relevant to their learning styles, the performances are usually better. When the learners' learning styles are matched congenial with the instructional styles, their motivation, performances, and attainments will be enhanced. In line with Ho (1999) in Bidabadi and Yamat (2012) who suggested that identifying the students' learning style preferences at the beginning of each course can assist their teachers in making adjustments in the proportion of task types to facilitate the learning of the students.

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