
LEARNING STYLES AND ENGLISH ACHIEVEMENT OF AGRICULTURE AND LIVESTOCK FACULTY STUDENTS AT LANGUAGE CENTER OF SUSKA ISLAMIC STATE UNIVERSITY RIAU

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Abstract

Learning styles are believed to affect learning achievement. The researcher's aim was to find out the most preferred learning style and English achievement of Agriculture and Livestock Faculty students at Language Center of SUSKA Islamic State University Riau. Based on the theory, perceptual is the commonly proposed learning style in language learning consists of visual, auditory, tactile, kinesthetic, group, and individual, are identified to propose an alternative solution to the problem of mismatching between students' preferred style and English lecturers' way of teaching. The research was a descriptive quantitative research involving 29 students of class IIA at Agriculture and Livestock Faculty in 2012/2013 Academic year as the subject. Questionnaire and test were used. The data were analyzed through Reid's calculation of the score of each style and the score of the English achievement of the students. Data analysis was interpreted, and the research finding was gained. The finding of the research showed that there were 23 students or 79.3% (from 29) mostly preferred kinesthetic learning style as the highest percentage among the other five styles (auditoria, tactile, visual, group, and individual sequentially). It also showed that related to their English achievement, 3 high-scored students or 75% (from 4) possessed kinesthetic and auditoria, 15 medium-scored students or 75% (from 20) possessed tactile and kinesthetic and 5 low-scored students or 100% (from 5) possessed kinesthetic and group style. In conclusion, the students did not only prefer to kinesthetic learning style, but they also had one other contiguous style for each group.

Keywords: Learning Style, Achievement, Language Center

1. INTRODUCTION

There are many efforts in improving the quality of education. One of the efforts is by paying attention to the students' uniqueness or characteristics. The characteristics can be in motivation, intelligence, interest, attitude, and even in their way of learning or also called as learning style. Nowadays, in language learning and teaching especially in foreign language, awareness of personal difference, particularly learning style is the other important factor in second language acquisition beside language skill and language content concerning students' academic success.

The awareness of student's learning style is very important in learning process since it will influence students' learning achievement. A learning problem seems to occur in Language Center of Islamic State University SUSKA RIAU where the researcher has been teaching for more than two years. The problem is reflected from the result of the students' English learning achievement. The researcher found from the data of the Language Center of all the students' grade recapitulation, the most significant students who got more low score on their language learning achievement, especially in English, is the student of Agriculture and Livestock faculty.

The problem is caused by their unawareness of the students' way of learning. The lecturers who are not aware of the uniqueness of students' learning style will provide

uncomfortable learning environment for most of the students and they will make the students frustration in learning. A student who frustrates in learning will not be able to achieve maximum learning results, for example in his learning achievement.

Learning style and learning achievement are interrelated. If the learning styles are fixed, the teacher will be able to accommodate the students more easily by tapping into their preference in learning style in a way that is compatible with each student to process information in learning process. Once the students are taught in the elm of their learning style, the learning process will be more effective, both students and teacher, which ultimately determine students' learning achievement. Therefore, the researcher wanted to find out the learning style of students of Agriculture and Livestock faculty at Language Center and their preference in order to help the lecturers in finding and applying teaching method that matches with the students' need in learning English.

2. BRIEF REVIEW OF RELATED THEORIES

Concept of Learning Style

Language Learning Theories

The root of learners' way of learning or their learning style is learning theories. In language learning, there are two dominant theories important placed in learning style emergence in education field. The theories explain the chronological background of the emergence of learning style. A combination and shift of the two basic theories or approaches that most of psychologists and educators do agree namely behaviorism and cognitive theories.

Behaviorism stresses the importance of having a particular form of behavior reinforced by someone, other than the learner, to shape or control what is learned. This theory provides the teacher with ways to manipulate learners with stimuli, induce the desire behavior or response, and reinforce the behavior with appropriate rewards (Pritchard, 2009). By contrast, the other approach, cognitive theories gave a reaction to the behaviorist that considered learning as passive process.

Unlike behaviorism, the cognitive theory focuses on what is going on inside the learner's mind. Learning is not just a change in behavior, but it is a change in a learner thinks, understands, and feels. The shift shows the focus of teacher-centered (behaviorism) into learner-centered (cognitivism) by considering more on learners, particularly on their differences and one of the differences is learners' learning style.

Learning Process and Learning Style

Learning process and learning style are two related important things in directing students' success in learning. According to Griggs (2011) the key to educational improvement that is critically important is process of learning and the way of individuals learn. The reason is because that there is relevance between education and the intricacies involved in any aspect of human learning, especially in second language learning and teaching.

In similar vein, Ghufron and Risnawita (2012) assert that an individual difference is an important factor in learning process. Learning style is also put as an important consideration in teaching and learning process in order to achieve students' success in learning. According to Reiff in Akram (2013) every learner's attribute relates to his or her learning process which means that students' characteristic influences their learning process because the students as individual have their own differences that can be noticed in their different ways, such as motivation, intelligence, aptitude, self esteem, confidence included in learning which will ultimately effect their result of learning. In other words, their differences as their attribute contribute to their way of learning. Therefore, learning style within learning process cannot be separated. It is because learning style assists students in term of directing their learning process in achieving their learning goal.

Nature of Learning Style

There are some definitions of learning style and its classification that is provided by some scholars and widely used and accepted. The concept of style helps to understand that how learners

are same with each other, and how they differ in terms of learning. There are some definitions of learning style that have been proposed by some experts in English as Second Language/Foreign Language (ESL/EFL).

According to Brown (2001; 2007), learning style can be defined as a style that whether relates to personality (such as extroversion, self esteem, anxiety) or to cognition (such as left/right brain orientation, ambiguity tolerance, field sensitivity). A definition of learning style is suggested by Pritchard (2009) that learning style can be commonly determined as a particular feature of learning that is the best-preferred way of an individual in thinking, processing, and demonstrating learning.

Therefore learning style or way of learning of person is individually that characterizes and differentiates him or her from others that is usually unchanged as a reaction in adjusting to his or her learning conditions.

Fundamental Consideration in Learning Style

Fundamental consideration in learning style means that some basis in term of important statements claimed to be true that is used in understanding the way of someone's learning. According to Reid (in Tuan, 2011), there are some basic statements that underline learning style of learners in second language learning. The characteristics of her fundamental consideration of learning style namely every person, students and teacher alike, has a learning style and learning strengths and weaknesses; Learning style exists on wide continuums; although they are described as opposites; Learning styles are value-neutral; that is, no one style is better than others (although clearly some students with some learning styles function better over others); Students must be encouraged to 'stretch' their learning styles so that they will be more empowered in a variety of learning situations.; Often, students' strategies are linked to their learning style; Teacher should allow their students to become aware of their learning strengths and weaknesses.

Therefore, based on these fundamentals, as stated by Reid (1987) that in teaching a diversity of provision of tasks and activities will help exercise as many of the preferred styles in the classroom as possible. The provided tasks and activities will also help the students in exposing their styles that might not have developed so well to give them a chance to extend their stock of skills or behavior that they habitually use in learning.

Learning Style in Higher Education

Enhancing and increasing the efficiency and the affectivity of students learning is very important in college and university. An important vehicle that can assist the educators in achieving this goal is through their teaching. In teaching, educators must have more knowledge in understanding the learning process, particularly the way of the students in learning, because it will help not only the lecturers but also the students immensely in designing and implementing the teaching, and enhancing the learning as well (Sims & Sims, 1995).

Furthermore, learning as one of the most important individual processes is expected where the students are able to learn and apply their learning. In order to achieve this aim, educators are also expected to understand some certain basic principles in learning when designing and implementing their learning program. The neglect or misapplication of principle of learning could easily result in educational endeavors that fail in achieving result.

There are some learning factors (principles) that will affect the learning of the students and the success of teaching efforts. The factors are stage setting; active participation provision, self-efficacy increasing, teachers' teaching technique to students' self-efficacy matching, opportunities provision for inactive mastery, specific, timely, diagnostic, and practical feedback provision, and opportunities provision as well for students to practice new behaviors also basic knowledge maintenance in particular areas; and learning points developments.

Learning Style Dimension

Every student has different learning styles that function as key to develop students' learning activities in school or university. It is also important factor to determine students'

academic achievements, how students learn, and how the teacher or the lecturer teaches or interaction both of them. There are many dimensions of learning style based on some elements that make up someone's learning style in order to keep the styles (Dasari, 2006). Cassidy (2004) divides three major of learning styles, which is cognitive learning style, sensory learning style, and personality learning.

However, within the domain of cognition, perceptual learning styles emerge as a neglected, yet significant factor in language learning (Rossi, 1989). The way in which the second language learners perceive and organize stimuli occurring in learning environment determines their facility in acquiring the language. Through the learner's perceptual channels, information is taken in, encoded and stored (Gagne in Rossi, 1989) and Reid (1987) has taken a first step in providing a global view of learning style preferences.

Dunn in Tekiner (2005) perceptual learning style is addressed in the questionnaire included four physical modalities as visual, auditory, tactile, and kinesthetic, and two sociological modalities as group and individual.

a) Visual

Reid (1998) states that visual learner learns from seeing words in books, things that are written or drawn on the chalkboard or in workbooks. It means that the learner remembers and understands information or instructions better when she or he reads them. The learner does not need as much oral explanation as an auditory learner, and the learner can often learn alone, with a book.

b) Auditoria

Reid (1987) also asserts that auditory learners, most of their time in learning is by learning from hearing words or spoken and from oral explanation. The learner may remember information by reading aloud or moving his or her lips, especially when the learner is reading the material. It seems that this kind of learner benefits from hearing audiotapes, lecturers, and class discussion.

c) Tactile

The tactile learners prefer to learn when they have the opportunity to do hands-on experiences with materials, because they need to touch and handle objects (Reid, 1998). They prefer to work on experiments in a laboratory, making models or build something, and touching and working with materials provided for them, such as class project with the most successful learning situation.

Writing notes or instruction can help them to remember information, and physical involvement in class related activities might help them understand new information. It means that the tactile learners refer to learners who learn through touch.

d) Kinesthetic

Kinesthetic learners prefer to learn by having experiential learning that involves physical activities within a learning situation or in classroom experiences (Reid, 1987). The reason that they need body movement in order to absorb and retain what is learned (Wooldridge, 1995).

Kinesthetic learners remember information well when they actively participate in activities such as field trips or role-playing in the classroom. A combination of stimuli for example an audiotape combined with an activity that will help them to understand new material.

e) Group

Reid (1998) states that group learners learn more easily when they study with at least one other student, and they will be more successful completing work well when they work with others. They value group interaction and class work with two or three classmates. The stimulation that they receive from group will help them learn and understand new information.

f) Individual

Individual learning is one of the sociological styles that refer to preferring to learn through working alone (Reid, 1998). Learners whose primarily learning style is individual learn more efficiently by themselves. The individual learners like working and learning better in a class than

in groups because they can gain the best advantage of learning in learning process.

Learning Style and English Achievement

Learning style and learning achievement have an existing connection in teaching and learning process. Therefore, teachers or lecturers must assess individual learning style preferences and they adapt their delivery technique to improve the pace of learning according to the students' learning style, because learning styles can help students' learning more easily and effectively (Sriphai, 2011). This is because when students understand their strengths and weaknesses, they can learn with greater motivation and the level of learning achieved by a learner is one of the most important factors that indicate the success of learning environment.

3. DATA ANALYSIS AND DISCUSSION

This research was a descriptive quantitative research. The research was carried out at Language Center of Islamic State University Sultan Syarif Kasim (UIN SUSKA). The subjects of this research were the students class II A at Agriculture and Livestock Faculty in the second semester. The number of the subjects was 29 students.

In measuring learning style, Diaz (2004) asserts that one of the instruments in measuring individuals' learning style is self-report instrument or questionnaire, usually by means of a forced-choice task. In this research, the instrument is called PLSPQ (Perceptual Learning Style Preference Questionnaire).

The instrument functions as collecting the data related to the problems of the research. The instrument was constructed based on six learning styles as the indicators that are visual learning style, auditory learning style, kinesthetic learning style, tactile learning style, group learning style, and individual learning style. In this instrument she asked the students to fill in the questionnaire in which each item provides five options: option one was strongly agree with the statement, option two was agree with the statement, options three was undecided with the statement, options four was disagree with the statement, and the last option was strongly disagree with the statement.

PLSPQ is a closed-ended questionnaire that consists of 30 items of statements that was given to the students. The Perceptual Learning Style Questionnaire has become one of the popular instruments to examine ESL/EFL students' learning style at the university level (Vaseghi, 2012; Khamkien, 2012). The researcher used the questionnaire that had already been modified into Indonesian. The validity and the reliability of the questionnaire had already been proven as well by Halim (2006) with the reliability was acceptable and the validity was relatively higher.

The computation of the reliability of the PLSPQ in Indonesian modification was processed by using SPSS. It was by using Reliability Analysis – Scale (ALPHA), with significant correlation at the .05 level. Each ALPHA score was relatively higher by showing score higher than R table (.2070), which meant that the reliability of the Indonesian questionnaire was acceptable.

The computation of the validity was also processed by SPSS. It was also by using Reliability Analysis – Scale (ALPHA), with the significant correlation at the .05 levels. Each item-total correlation score was also relatively higher because it was higher than R table (.2070) that meant that the validity of the Indonesian questionnaire was also acceptable.

The PLSPQ was also used for this research for many reasons, three of which are cited here. First, the PLSPQ has been previously validated and its reliability is high (Reid, 1987). Reid stated that the validation of the questionnaire was done by using the split half method. A correlation analysis of an original set of 60 statements (10 per learning style) determined which 5 statements should remain within each subset, and that process resulted in the creation of the recent questionnaire with its 30 statements. Second, the PLSPQ was to be most relevant to the present research as it was designed mainly to assess the learning style of ESL/EFL students. With the prospective respondents' background in mind, the questionnaire made use of simple language for non-native speakers of English. Then third, this measure allows students to assess their learning

styles easily by using the calculations Reid provided with the questionnaire.

The second instrument was interview. The interview was used to verify data from the questionnaire. Lodico (2010) explains the interview might be the data collection of the study particularly when the behavior or interest cannot be easily observed. The researcher used structured interview or close-ended questions. The researcher used interview guide to help her to do the interview. The questions were based on the indicators of perceptual learning style of Reid.

In collecting the data, the researcher did the interview by using a voice recorder as an instrument during interview process. Interview was done at outside of the classroom so that the researcher could ask the questions to the student in intimate atmosphere. Ten students were interviewed and the result was then compared to the result of the questionnaire.

The third instrument, observation, was used by the researcher to observe the students' way of learning in learning process at Language Development Center at UIN SUSKA of Riau. Observation was done for 3 weeks (3 meetings). Field notes were also used.

Cresswell (2012) states observation is the process of gathering open-ended, fast hand information by observing people and places at a research side observation includes the opportunity to record information as it occurs in a setting, to study actual behavior, and to study individuals.

In collecting the data, the researcher observed the way of learning of the student during their learning process in English class. The researcher was participant observer, where she watched the activity and also participated. The instrument used in this activity was a video camera and field notes to note down the entire important happening during the process. Lodico (2010) states that descriptive field notes function as what researcher sees and hear in the setting, it describes what happens in the setting during the observation in as much detail with as few subjective comments as possible. The researcher did the observation in order to clarify the data gotten from the questionnaire as well.

The fourth instrument was an achievement test. It was used to find out the students' English achievement. The materials were the materials that are provided in the textbook for the first and second semester students who are studying at Language Center. The test was given in multiple choice form consisted of five options (A, B, C, D and E).

The test was administered at the end of the second semester. It was constructed based on the competence indicators from the textbook provided by Language Center. The total item of the test was in 50 items of multiple-choice. In constructing the test, the researcher only constructed it based on the language function and the language component according to Language Center guidance. In collecting the data, the researcher administered the test. In the test the basic competences and the indicators were used. Before administering the test to the subject, the researcher did a try out on the test first on the other class (IIB) in order to know the validity and the reliability of the test.

After all the result came, now we can know the learning style of the students.

Questionnaire

Table 1
Students' Learning Style Preference

Rank	Learning Style	Frequency	Total Student	Percentage of Preference (out of 100%)
1	Kinesthetic	23	29	79.3 %
2	Auditoria	21	29	72.4%
3	Tactile	20	29	68.9%
4	Visual	17	29	58.6%
5	Group	17	29	58.6%
6	Individual	5	29	17.2%

From the above table, it can be concluded that the most preferred learning style of the students of Agriculture and Livestock at Language Center of SUSKA Islamic State University

Riau was kinesthetic learning style.

Interview

After analyzing the data gotten from the interview, the researcher found that the students do have the most preference learning style in kinesthetic. It can be noticed from the students' answer when they were asked about their preference in kinesthetic, most of the students had the same answer. They mostly answered that they like learning English by doing something in the class. Most of them prefer to have activities during the learning process; they do not really like doing a game such as role-play, but another activities such as speaking activities to improve their speaking skill. They willingly do an activity that can help them to improve it.

Observation

In assessing the students' preference on kinesthetic learning style, the researcher provided an activity. During the observation, the students were very enthusiastic by participating in the activity. There were only very few students who did not participate. They preferred to get involved. This observation proves that most of the students do prefer to have kinesthetic learning style by having activities and some experiments in their learning.

Test

After the score gotten, the researcher found out the students' learning style preference related to their achievement as the following:

Table 2
Learning Style of the Students related to Their Achievement Categorization

LEARNING	HIGH	MEDIUM	LOW	
STYLE	N	N	N	%
Visual	4	20	5	60
Auditoria	4	20	5	80
Tactile	4	20	5	80
Kinesthetic	4	20	5	100
Group	4	20	5	100
Individual	4	20	5	20

Learning Style of the Students with High Score

From the table 2 above, it can be seen that there were 4 students who got high score in their English achievement. There were 50% of the students preferred visual as their learning style preference (2 students) from 4 students, 75% of the students preferred to auditoria learning style (3 students) from 4 students, 25% of the students preferred to tactile learning style (1 students) from 4 students, 75% of the students preferred to kinesthetic learning style preference (3 students) from 4 students, 50% of the students preferred to group learning style (2 students) from 4 students, and 0% of the students preferred to individual learning style as their preference for the students who got high score in their English achievement (0 students).

Learning Style of the Students with Medium Score

From the table 2 above it can be noticed there were 20 students who got medium score in their English achievement. It was also revealed that it was 60% of the students who were identified for having the preference of visual learning style (12 students) from 20 students, 70% of the students had the preference of auditoria learning style (14 students) from 20 students, 75% of the students preferred to tactile learning style (15 students) from 20 students, 75% of the students

preferred to kinesthetic learning style (15 students) from 20 students, 50% of the students preferred to group learning style (10 students) from 20 students, and 20% of the students preferred individual learning style as their preference for the students who got medium score in their English achievement (4 students) from 20 students.

Learning Styles of Students of Low Score

From the table 2 above, it can be seen that there were 5 students who got low score in their English achievement. There were 60% of the students preferred visual as their learning style preference (3 students) from 5 students, 80% of the students preferred to auditoria learning style (4 students) from 5 students, 80% of the students preferred to tactile learning style (4 students) from 5 students, 100% of the students preferred to kinesthetic learning style preference (5 students) from 5 students, 100% of the students preferred to group learning style (5 students) from 5 students, and 20% of the students preferred to individual learning style as their preference for the students who got low score in their English achievement (1 students) from 5 students.

Based on the data analysis, the researcher also found that some of the students also possess strong learning styles for all the six styles. Kinesthetic learning style is preferred by the three groups of students that are students with high score, medium score, and low score, and along with the kinesthetic style there is also another one learning style with it, event though there are also few students are also strong in all the six learning styles.

The reason for them for having kinesthetic learning style as their most preferred style because the students in this study are the students who are taught which deal with mainly concrete, real life situation through practices and experiments. The students are taught with the topic directly relevance to 'real life' with the application of many practices. So, in the other words is that the topic taught is worth learning for its practical value. And they are the learners who prefer to interactive learning through whole body movement in which the advantage of having this type of learning style, the learners will find it easy to demonstrate how to do something (Sims & Sims, 1995).

Based on the finding, it was found there is a similarity of learning style preference between the three groups (students with high, medium, and low score). They prefer to kinesthetic learning style as their strongest preference. Their preference to kinesthetic learning style shows that the students prefer to learn by doing in learning, including in their English subject in which they prefer to have practices.

The similar most preferred learning style of the students emphasizes that in learning language, practices and experiments are necessities because for non-native language learners tend to prefer to learn by having physical involvement (Reid, 1987). Other than that, in picking up the suitable strategic techniques for language skills, the students have to be able to recognize their preferred learning style that will be suitable for that strategy in learning (Brown, 2002).

In other words, their learning style determines their learning strategy especially for foreign language or second language learners who dominantly prefer to kinesthetic learning style above other learning styles that need to be highly represented in learning process. Beside the similarity of learning style preference between them, there are also some differences. The differences are that the students with high score also prefer auditoria learning style beside their kinesthetic style, the students with medium score also prefer tactile learning style beside their kinesthetic style, and the students with low score also prefer to group learning style beside their kinesthetic style.

This finding shows that even though learning styles are often presented in dichotomy but their existence is actually continuous. It means that even though one learning style looks different from the other one, but both of them are always contiguous or side by side (Nel, 2008; Reid in Tuan, 2011). In other words, students do not merely have one learning style as their preference, but also always be accompanied by another adjacent learning style.

Students in this study do not have many opportunities in maximizing and accommodating their styles in the present class. The reason is because most of the teaching method applied by the

lecturers in delivering the material is lecturing. The students are not able to fully comprehend the material given since their interest in learning is more prefer to tactile and kinesthetic learning style. Therefore, this is also the cause for them for being categorized as students with medium score in their English achievement. This fact justifies that conventional teaching practices such as lectures is unresponsive to the needs of tactual and kinesthetic learners who tend to process and remember new and difficult information or skills when they use manipulative materials or participate in concrete 'real life' experiences (Dunn & Dunn, 2000)

4. CONCLUSION

There were five learning styles that the students used as their strong preferences. They chose kinesthetic learning style, auditoria learning style, tactile learning style, group learning style, and visual learning style. But the most preferred learning style of the students was kinesthetic learning style shown by the highest percentage of the students who preferred this type of learning style from all the rest of the learning styles used by the students.

This research had also shown that, based on their English learning achievement score classification, the students with high, medium, and low possessed not only kinesthetic as their strongest preference, but also other preference for each group. Students with high score also prefer to auditoria learning style, students with medium score also prefer to tactile learning style, and students with low score also prefer to group learning style.

5. SUGGESTION

a. Suggestion For Students

It is important for the students to be aware of their own learning style and the aim of learning English in Language Center so that they will be motivated to learn and be able to perform better academically.

b. Suggestion For Lecturer

The lecturers who are teaching students based on their majors are expected to find more suitable teaching strategies for the students, especially related to task-based, so that there will be no mismatch between the students' learning style and the lecturers' teaching strategies and the students' will be do much better in their academic achievement.

It is important to be put as a consideration that there are other factors that influence the students' English learning achievement such as the characteristics of the students in the term of interest, motivation, emotion, or personality. Those factors need to be noticed by the lecturers in order to have more effective learning process at Language Center.

c. For The Next Researcher

The researcher hopes that if the next researchers want to continue this research, they can try to do research which discuss about the contiguosity of the learning styles and their effect on other side of English teaching and learning. It can be correlation or experimental research.

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