

LEARNING STYLES AND ACADEMIC ACHIEVEMENT OF ENGLISH III STUDENTS AT ASSUMPTION UNIVERSITY OF THAILAND

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Abstract

This study identified the learning styles of English III students and how these relate to their academic performance. Sixty seven students participated in the study who answered the DVC Learning Style Survey for College. This instrument was written by Catherine Jester of Diablo Valley College in northern California and is available on-line. Results showed that majority of the students are auditory/verbal learners and this group of students had the most number of students who passed the course with no failure while the tactile learners had the least number of students who passed the course. Kruskal-Wallis test was used to determine if there was significant difference in the grades obtained by students with respect to their learning styles. Results of the test showed that there was no significant difference in the grades of the students with respect to their learning styles.

Keywords: Learning Style, Academic Achievement, ESL

บทคัดย่อ

งานวิจัยนี้ศึกษาแบบแผนการเรียนรู้ของนักศึกษาที่เรียนวิชาภาษาอังกฤษ 3 และความสัมพันธ์ของแบบแผนการเรียนกับผลการเรียน โดยมีนักศึกษา 67 คนตอบแบบสำรวจ DVC LEARNING STYLE SURVEY FOR COLLEGE ซึ่งเขียนโดย CATHERINE JESTER มหาวิทยาลัย DIOBLO VALLEY COLLEGE ทางตอนเหนือของรัฐแคลิฟอร์เนียและมีใช้ในรูปแบบออนไลน์ ผลการวิจัยแสดงว่านักศึกษามากกว่าครึ่งเป็นผู้เรียนจากการฟังการบรรยาย (AUDITORY/VERBAL LEARNERS) และนักศึกษากลุ่มนี้เป็นกลุ่มที่สอบผ่านวิชานี้มากที่สุดโดยไม่มีผู้สอบไม่ผ่าน ในขณะที่นักศึกษาที่เป็นผู้เรียนจากการกระทำ (TACTILE LEARNERS) เป็นกลุ่มที่สอบผ่านน้อยที่สุด งานวิจัยนี้ยังใช้แบบทดสอบ KRUSKAL-WALLIS TEST เพื่อวิเคราะห์ว่ามีความแตกต่างที่มีนัยสำคัญในผลการสอบของนักศึกษาที่มีแบบแผนการเรียนต่างกันหรือไม่ ผลการทดสอบแสดงว่าไม่มีความแตกต่างที่มีนัยสำคัญในผลการสอบของนักศึกษาที่มีกับแบบแผนการเรียนต่างกัน

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INTRODUCTION

There is a growing awareness among teachers and educators that learning styles of students matter in the teaching and learning process if students are to succeed academically. However, despite this knowledge, many teachers are still adamant about changing the way they teach, ignoring the varying needs and learning styles of their students. Many teachers claim that they know what is best for their students; therefore, they still cling to the old traditional ways of teaching, believing that these methodologies that have worked before will also work for their present students. According to Sitt-Gohdes, 2001 (cited by Abidin, et al., 2011), many teachers still hold to this belief. This can be a cause of frustration for a good number of learners because they see that their learning preferences are not taken into consideration by many teachers. Time has changed and so are students. The needs of students have changed dramatically since the introduction of technology into their lives. Present day students need more varying teaching techniques that would engage them in the teaching and learning process. As mentioned by Pornsakulvanich, et al. (2012) in their research, taking into account the individual differences of teachers in teaching and individual differences of students in learning is important because failure to do so will have negative consequences for both the teachers and the students. Some negative consequences are students get bored, become inattentive, get low scores in tests, get discouraged about the course and eventually drop the course (Felder & Silverman 1988, Godleski 1984, Oxford et al. 1991,

Smith & Renzulli 1984, qtd by Felder, R.M., 1995). Instructors become frustrated with low test grades, unresponsive classes, poor attendance and dropouts and they become very critical of their students or even question their own teaching competence (Felder, 1995).

The role of teachers becomes more challenging as they have to make sure that they are meeting the learning style requirements of their students. Thus, teachers should be in constant search of new techniques in teaching that will cater to the different learning styles of their students who may be auditory learners, visual learners, verbal learners or tactile/kinesthetic learners. Being aware of this will help teachers adapt their teaching style to the learning styles of their students. There are views that contend that if learning styles are fixed, instructors could accommodate students more easily by tapping into their preferred learning style and teaching in a way that is compatible with each student's ability to process information (Jhaish, 2010). On the other hand, for those who believe that learning styles change, Hall, 2005, (qtd in Jahish, 2010) suggests that instructors should make students aware of how they are currently processing information and sensitize them to the approaches and strategies that would help them expand their repertoire of styles.

REVIEW OF LITERATURE

What are learning styles?

A review of literature will reveal that there are many definitions of learning style.

Some definitions sometimes overlap (Mulalic, et al., 2009). According to Felder (1993), learning style refers to the overall approach by which a student learns. It is now a well-documented fact that people learn in different ways (Renou, 2004)). In this study, the learning styles that are of particular interest are the visual/verbal learning style, the visual/non-verbal learning style, auditory/verbal learning style and the tactile/kinesthetic learning style which have been used to group learners by researchers at Diablo Valley College in northern California (Jester & Miller, 2000.)

Four Learning Styles in the DVC Survey

Visual/Verbal Learning Style

Learners in this group learn best when information is presented visually and in a written language format. This group of learners prefers instructors who use the blackboard or overhead projector because they can see list of essential points of a lecture or an outline they can use to follow along with during the lecture (Jester & Miller, 2000).

The Visual/Non-verbal Learning Style

Learners in this group learn best when information is presented visually either in a picture or design format. Thus, they benefit and learn more from instructors who use visual aids such as film, video, maps and charts (Jester & Miller, 2000).

Auditory/Verbal Learning Style

Learners in this group learn best when information is presented in an oral language format or auditory format. These students

benefit from listening to lecture, participating in group discussions and interacting with others in a listening/speaking exchange. Information from audio tape is also beneficial to this group of learners (Jester & Miller, 2000).

The Tactile/Kinesthetic Learning Style

Learners in this group learn best when physically engaged in a “hands-on” activity. They benefit in a classroom where they can manipulate materials to learn new information. A pure lecture course can be very challenging for this group of learners since they learn best when they are physically active (Jester & Miller, 2000).

Learning Styles and Academic Achievement

There has been a number of research conducted to show the relationship of learning style and academic success or achievement. Studies have shown that matching teaching styles to learning styles can significantly enhance academic achievement of students at the primary and secondary level (Griggs & Dunn 1984, Smith & Renzulli 1984 qtd by Felder, 1995) Dedicated teachers have made attempts to enhance their students’ academic achievements (Abidin et al., 2011). One of these ways according to Abidin (2011) is to identify each student’s learning style to determine strengths for academic achievement. In a study of Castro and Peck (2005) on learning styles and learning difficulties of foreign language students, they claimed that the preferred learning style of the student can be a help or a hindrance in the success of the student in the foreign language classroom. Abidin et al. (2011) im-

plied that the students in their study possessed multiple learning styles or a combination of different learning styles, thus, they are able to learn effectively. They indicated that learning styles make an impact on the students' overall achievement. Dunn et al. (1995) claimed that students who were taught by an approach compatible with their learning style did better than those whose learning styles were not matched with the teaching methodologies. Damavandi, et al. (2011) found significant difference in the achievement of students with converging, diverging, accommodating and assimilating learning styles. The mean scores for converging and assimilating groups are significantly higher than diverging and accommodating groups (Damavandi, et al., 2011)

However, some studies also indicate that there is no significant relationship between learning style and academic achievement. In her study, Renou (2004) found no statistically significant advantage to preferring one learning style over another with respect to success (course grade) in a French language course. Aripin et al. (2008) in their study of students' learning styles and academic performance concluded that there is no strong correlation between learning style and academic performance but there is a strong indication that students who are more participative tend to perform better academically.

Learning Styles and Writing in English

According to Turton et al. (2000), academic language skills can be taught by using activities that cater to different learning styles. Students, according to them, should be encouraged to learn in their pre-

ferred style but they should also be challenged to learn in different ways.

A wide range of teaching techniques are available to teachers of English which they can draw upon to teach writing so that they are able to help students write effectively by considering students' learning strengths (Pugh, M. & Year 7, 2002). Students can be encouraged to use their visual, auditory, kinesthetic, interpersonal and intrapersonal skills in an English writing class.

Visual learning involves visualizing the content, layout, length, and process of writing. Visual learners need to see the whole text, how to write it, idea by idea or paragraph by paragraph (Pugh, M. & Year 7, 2002). Visual learners prefer to have information presented visually (Gill, D., 2005). Visual learners organize knowledge in terms of spatial interrelationships among ideas and store it graphically (Nilson, 2003). There are many ways in which teachers can help visual learners write effectively. Teachers can teach them how to map out ideas, do a brainstorming or teachers can show them some samples of good written work of other students.

Auditory learners learn best when they listen or hear the words. Reading aloud some student's writings or reading some examples of words and phrases students can use in writing can help auditory learners compose and transfer them into their writing. Collaborative writing is also helpful for auditory learners because they are encouraged to discuss and share ideas through oral drafting. These will help them to refine or improve their ideas (Pugh, M. & Year 7, 2002).

Kinaesthetic learners learn best by do-

ing. This group of learners learn best when they are active and have interaction with others in the classroom. This helps them to master a concept (Sarasin, 1998, qtd by Renou, 2004). They learn better if there is something in their hands or if they move around; thus, allowing students to move around to collaborate with others during a writing session helps this type of learners to think of ideas they can use in writing because physical movement has benefits for thinking (Pugh, M & Year 7, 2002).

Verbal learners learn best when they share and collaborate with others, talking ideas out or brainstorming with their friends called response partners. By talking with their friends, visual learners can negotiate meanings and develop ways on how to express them in writing. (Pugh, M. & Year 7, 2002)

Problems of Thai Students in Writing English

Thai students have many problems learning English as a foreign language. Most Thai students have difficulties in all four English language skills: listening, speaking, reading and writing but writing is the skill which most Thais find very difficult. Writing is a difficult skill even in one's own language (Pawapatcharodom, 2007). There are many reasons why Thais find it difficult to write in English. The first and foremost is Thais are not keen on reading. According to the Programs for International Student Assessment (PISA) in 2009, nearly half of Thai students did not have basic reading and science skills. The average international reading scores were at 492 but Thai students scored just 422, ranking Thais in the 50th place (The Na-

tion, Dec.8, 2010). Reading and writing are complementary. The more one reads, the more one acquires vocabulary and familiarity with the usage of words and structure of sentences. Since majority of Thais do not read much English texts, their English vocabulary is very limited, which becomes a problem when they write something in English. An L2 English learner can learn how to write through reading as an English composition or text that contains a variety of sentence structures which students can use as models when writing in English. According to Langer and Flihan (2000), writers can incorporate what they have learned about language, structure and style from the texts they have encountered as readers. Knowledge from texts one reads and experience helps a writer generate and synthesize ideas for writing (Langer & Flihan, 2000).

Another problem is Thai students translate a sentence in Thai first before writing it in English; thus, the resulting sentence does not make sense because the sentence is translated word for word in Thai and written in English. Bennui (2008) found in his study that Thai students' writing is mostly done by literal translation of Thai words into English, the so-called L1 lexical interference in the students' written work. A Thai sentence structure is very different from that of the English sentence structure. Thai sentences do not have subjects sometimes and there are no verb tenses. The only indication of when an action takes place is the addition of adverbs of time. In Thai word arrangement, a noun precedes an adjective. Articles or determiners are seldom used in Thai sentences. Punctuation is also a problem because

Thais do not use punctuation marks in their writings. Sentence fragments are also very common in Thai students' writings. These errors are made due to lack of syntactic knowledge and the interference of the first language (Watcharapunyawong & Usaha, 2013).

The problems mentioned are not exhaustive. There are still other problems a teacher of English writing encounters in a writing class but being aware of these problems and the different learning styles will assist English teachers in devising teaching strategies that will help students to develop their writing skills.

THE STUDY

In this study, the researcher is interested in determining whether there is a difference in the final grades of English III students with respect to their learning styles. Thus, the null hypothesis is, there is no significant difference in the final grades of English III students with respect to their learning styles. The final grades were used as an indicator of academic success. The researcher used a variety of teaching techniques in order to cater to all learning styles of the students. Effective instruction reaches out to all students, not to just one particular learning style (Felder, 1995). Smith and Renzulli believe that students should have at least some exposure to different methods of teaching so that they are able to develop a full range of learning skills and strategies (Smith & Renzulli, 1984). Thus, the learning style of each student was determined only after the end of the semester.

Participants

The participants in this study were students of the researcher in English III in the second semester of 2011. Students are from different faculties of Assumption University. English III is a foundation course for all undergraduate students. This course is a writing course focusing on reading comprehension, writing memos, e-mails, resumes and application letters.

Some students in this study had repeated the course for several times but majority were new to the course. A total of 67 students participated in this study. Sixty three percent of the participants are females and 37% are males. Majority are Thais (94%) and 6% represent other nationalities.

Instrument

There are many instruments available to determine the learning styles of students. The instrument used in this study to determine the learning styles of English III students was the Diablo Valley College Learning Style Survey for College available online and is free of charge. This on-line learning style assessment was written by Catherine Jester, a Learning Disability Specialist and adapted for the web by Suzanne Miller, a Math and Multimedia Instructor (Jester & Miller, 2000). In order to facilitate the collection of data, the researcher distributed hard copies of the questionnaire to the students. The questionnaire consists of 32 statements and students were asked to choose the appropriate answer to each statement. After the students had completed the questionnaires, they were sub-

mitted to the researcher. The responses of each student were keyed in the on-line questionnaire to determine his/her learning style preference.

Since the sample size was small, and data were not normally distributed, a Kruskal-Wallis one way ANOVA was performed to determine whether the differences or lack of differences between the dependent variable (course grade) and independent variables (learning style preference) are statistically significant or not.

Results

Table 1: Learning Style Preferences

Learning Style	Frequency	Percent
Visual/Verbal	14	20.9
Tactile/Kinesthetic	12	17.9
Balance	15	22.4
Auditory/Verbal	15	22.4
Visual/Non-Verbal	11	16.4
Total	67	100

Table 1 shows that majority of the participants had balance and auditory/verbal learning style preferences, both representing 22.4% of the total number of participants followed by the visual/verbal learners (20.9%). The visual/non-verbal learners represented the lowest percentage

(16.4%).

As shown in table 2, most of the students who passed the course were the auditory/verbal learners (22.4%) and with no failure, while the tactile/kinesthetic learners had the least number of passing grade (11.9%) and had the highest failure.

Table 3: Kruskal-Wallis

Ranks		
learsty	N	Mean Rank
Grade Visual/Verbal	14	35.96
Tactile/Kines	12	36.21
Balance	15	38.60
Aud/Verbal	15	33.97
Visual/Non-Verb	11	22.86
Total	67	

Test Statistics^{a,b}

	Grade
Chi-Square	5.417
df	4
Asymp. Sig.	.247

^aKruskal Wallis Test

^bGrouping Variable: learsty

Results of the Kruskal-Wallis test showed that the p-value .247 is more than .05, thus, the null hypothesis, there is no significant difference in grades with respect to the learning styles, is not rejected.

Table 2: Learning Style and Grade Cross tabulation

	Grade							Total	%	*WP	%
	A	B-	B	B+	C+	C	C				
Visual/Verbal	1	0	0	0	4	7	12	17.9	2	3.0	
Tactile/Kines	0	3	0	1	1	3	8	11.9	4	6.0	
Balance	0	1	2	0	0	10	13	19.4	2	3.0	
Aud/Verbal	0	2	1	0	1	11	15	22.4	0	0.0	
Visual/Non-Verb	1	3	0	0	4	2	10	14.9	1	1.5	
Total	2	9	3	1	10	33	58	86.5	9	13.5	

* Work in Progress: Students failed the course and had to repeat the course.

Discussion of Results

From the results, majority of students are auditory/verbal learners. This is also the group of learners who had the most number of students who passed the course with no failure. Although the researcher used a variety of teaching strategies to cater to different learning styles, the researcher utilized group discussions and group work and pair work the most since the researcher observed that majority of the students benefitted from these activities. Group oriented learners or learners preferring group discussions before writing acquire knowledge best when they study with one or more students in a group (Mulalic, Shah & Ahmad, 2009).

Results of this study show that there is no statistically significant advantage of preferring one learning style over another with respect to the grades obtained in the course. This is in agreement with the findings of Renou (2004) in her study of the perceptual learning styles and achievement in a university-level foreign language course. Results of her study do not show any statistically significant advantage to preferring one learning style over another with respect to success (course grade) in a French language course (Renou, 2004). Having a particular learning-style preference in her study did not provide any advantage or disadvantage for the learning outcome of the students (Renou, 2004). As cited by Renou (2004), Tight's (2007) study showed that using mixed teaching strategies was more beneficial to students than using the students' preferred modality. According to Smith & Renzulli (1984), an effective instruction should reach out to all

students, whatever their learning styles are. They added that students should have exposure to different teaching methods to develop a full range of learning skills and strategies (Smith & Renzulli, 1984). In this study, results showed that the tactile learners had the least number of students who passed the course. Teachers, therefore, according to Renou (2004), should encourage this group of learners to take charge of their learning by expanding their preferred learning style to accommodate the teaching methods used in class.

CONCLUSION

Recognizing the different learning styles of students is crucial if teachers want their students to succeed academically. This will also help teachers develop a variety of teaching strategies and practices that are essential in the learning process. A variety of teaching materials should be incorporated in the language classroom so that students are able to adjust to different learning situations and to avoid any confrontations when exposed to learning styles that do not suit them (Mulalic, Shah & Ahmad, 2009). Therefore, it is very important for teachers to understand the learning styles of their students and how they impact their academic achievement (Damavandi, A. J., et al., 2011).

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APPENDIX

A Learning Style Survey for College

written by Catherine Jester
Learning Disability Specialist
Diablo Valley College

Please enter your

First Name: **Ravicha**

Last Name: **Suwanasse**

Age: 20

Sex: Male Female

Click on the most appropriate button after each statement.

Use the Tab key to move to the next question.

1. I would rather read material in a textbook than listen to a lecture.

Often Sometimes Seldom

2. I benefit from studying with a partner or study group.

Often Sometimes Seldom

3. In my spare time, I like to do projects that involve using my hands (e.g. painting, constructing, using tools, etc.).

Often Sometimes Seldom

4. I find graphs and diagrams useful in clarifying concepts.

Often Sometimes Seldom

5. I benefit more from lab classes than lecture classes.

Often Sometimes Seldom

6. I find it useful to read out loud when reading a textbook.

Often Sometimes Seldom

7. Reviewing information on flash-

cards helps me remember it.

Often Sometimes Seldom

8. I like solving mazes or jigsaw puzzles.

Often Sometimes Seldom

9. I can find the mistakes in my written work.

Often Sometimes Seldom

10. I find myself talking out loud when studying by myself.

Often Sometimes Seldom

11. As a child, I liked to engage in physical activities during my free time.

Often Sometimes Seldom

12. I would rather listen to a book on tape than read it.

Often Sometimes Seldom

13. I like solving crossword or word search puzzles.

Often Sometimes Seldom

14. I tend to doodle during lecture by drawing on my notebook pages.

Often Sometimes Seldom

15. When trying to remember a phone number, I “let my fingers do the walking”, i.e. my fingers seem to remember the number on their own.

Often Sometimes Seldom

16. As a child, I liked to read books during my free time.

Often Sometimes Seldom

17. I would rather listen to a lecture than read the material in a book.

Often Sometimes Seldom

18. I can use a map effectively to get myself to a new location.

Often Sometimes Seldom

19. As a child, I liked to listen to stories told to me, or stories on tape, record player, or radio.

Often Sometimes Seldom

20. When learning a new skill, I would rather watch someone demonstrate the skill than listen to someone tell me how to do it.

Often Sometimes Seldom

21. When trying to remember a phone number, I can “see” the number sequence in my head, or I “see” the way the numbers look on the phone.

Often Sometimes Seldom

22. When trying to remember how to spell a word, I spell the letters with my finger in the air or on a table top.

Often Sometimes Seldom

23. If I have to learn how to assemble something, I would rather look at a diagram than listen to someone tell me how to put it together.

Often Sometimes Seldom

24. When trying to remember how to spell a word, I write down the word using alternative spellings until I see the spelling sequence I think is correct.

Often Sometimes Seldom

25. When trying to remember a phone number, I “hear” the number sequence in my head in the way someone told me the number, or in the way I previously recited the number out loud.

Often Sometimes Seldom

26. I like “hands on” learning better than learning from lecture or textbook.

Often Sometimes Seldom

27. I would rather have written directions than oral directions.

Often Sometimes Seldom

28. When trying to remember how to spell a word, I say the letters or sounds out loud until I think I’ve got the spelling right.

Often Sometimes Seldom

Laura Brahmakasikara

29. I learn better by doing than observing.

Often Sometimes Seldom

30. As a child, I liked to play with puzzles in my free time.

Often Sometimes Seldom

31. When taking a test, I can “see” the answer in my head as it appeared in my notes or textbook when I studied.

Often Sometimes Seldom

32. I learn best when physical activity is involved.

Often Sometimes Seldom