A STUDY OF LEARNING STYLE PREFERENCES OF ALL FEMALE STUDENTS IN UNIVERSITY LEVEL.
(A Case Study in one of Islamic University in Bandung)

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ABSTRACT

This research investigated students learning styles of all female students in University Level. The study involved 129 students in one of Islamic University in Bandung. The C.I.T.E Learning Styles Instrument by Joy Reid was used to identify 6 different kinds of Learning Styles. The research questions were as follows: (1) What are the learning styles possessed by students?, (2) What are the dominant learning styles of Female Students in University Level?, and (3) How do those learning styles influence students' level of study?.The data percentages show that most of students in each class have visual learning style by the percentage (A:65,21%, B:73,17%, C:66,67%, D:73,91%). The second highest numbers also happens to Kinesthetic learning style (A:69,56%, B:48,78%, C:59,532%, D:65,22%) and Individual learning style (A:73,91%, B:43,90%, C:47,62%, D:69,56%). From those data, it can be concluded that more than a half female students in that university are visual, kinesthetic and auditory learners. Tactile learnes are only between 40-50 % of students. And the least percentage of students are auditory and group learners. Based on the result, the learning styles of every class are different. The phenomena shows that there are no special kinds of learning styles that can determine level of study.

Keywords: learning style, visual, kinesthetic, auditory, tactile

A. Introduction

The way student learn is an important thing that makes a significant contribution to student's achievement. Besides the way teachers teach and the materials that are given to the students, the way students learn is also one of essential thing to be discussed. It is important also as a capital for teachers in delivering knowledge especially English.

Learners, or students, are central focus in every teaching learning activity. They have their own characteristic as an individuals. Three variables that contribute their differences are *cognitive, affective,* and *personality* (Keith Johnson, 2001). Those variables also determine the learning styles of students. By knowing kinds of learning styles possessed by students, teachers can more easily improve students' understanding and may be interesting in learning English. Moreover, the research is also intended to examine whether the learning styles have a significant influence on students' level of study.

Learning styles are simply different approaches to learning. Each individual has his/her unique way of learning. Learning style greatly affects the learning process, and, therefore, the outcome (Carver, Howard, & Lane, 1999; Vincent & Ross, 2001). Stellwagen (2001) argued that flexible combinations of learning and teaching styles allow all students to develop effective ways of gaining positive educational outcomes.The topic of learning styles and its effect on student performance have been extensivelyexamined in the educational research literature (Felder &Henriques, 1995), specificallyin the context of differences in student learning styles by Felder

and Brent (2005). Many learning style assessment instruments have been developed in the past five decades (Felder &Henriques, 1995).

Chan (2001) described that the assessment of students' preferences for specific learning styles is basically to help teachers employ strategies that are congruent with students' preferences in order to maximize the students' learning outcomes. Teachers (Institute for Learning Styles Journal • Volume 1, Spring 2012 • Page 2who taught with learning styles as a basis adapted themselves more often to students'learning preferences, cooperated and reflected more with colleagues, were moredevelopment-oriented and more open to change compared with those who did not uselearning styles as a pedagogical basis (Bostrom, 2011).

This research is to identify the learning styleof students in one of Islamic University in Bandung. The research questions are as follows:

1) What are the learning styles that possessed by students?
2) What are the dominant learning styles of Female Students in University Level?
3) How do those learning styles influence to students level of study?.

B. Literature Review

Every person has many different ways to learn. In learning English, every student also has their own learning style. Learning style means the way that every person is likely choose to do in learning activity. Some experts have different opinions on the meaning of learning styles. Salawu et al (Salawu et al 2008) defined learning as a relatively permanent change in an organism's behavior due to experience. Learning styles refer to the variations in one's ability to accumulate as well as assimilate information(Felder 1996).

According to Keefe (1979), learning styles generally refer to cognitive, affective, and physiological behaviors that perform as relatively stableindicators of how people perceive, interplay with, and respond to their environment inlearning situations. Learning involves the whole human activities: feeling, reflecting, thinking, and doing (Kolb, 1984). Cano (2005) pointed out learning styles deployed by students may well reflect the quality of the education they are receiving. Learning styles are usually described as the cognitive, affective, and physiological traits that students exhibit as they interact in the classroom environment. Some consider learning styles are related to individual methods and strategies of information processing (Reid, 1995). Additionally, Haar, Hall, Schoepp, and Smith (2002) also elaborated learning styles as individual's differences in which information isperceived, processed, and communicated.

There are some kinds of learning styles possessed by every language learner. Research on U.S. school children (R. Dunn, 1983, 1984; Reinert, 1976) has demonstrated that learners have four basic perceptual learning channels (or modalities):

1) Visual learning: reading, studying charts
2) Auditory learning: listening to lectures, audiotapes
3) Kinesthetic learning: experiential learning, that is, total physical involvement with a learning situation
4) Tactile learning: "hands-on" learning, such as building models or doing laboratory experiments

Based on the explanation that was adapted from the C.I.T.E. Learning Styles Instrument, Murdoch Teacher Center, Wichita, Kansas 67208 (1984, Joy Reid), that there are six of Learning Style Preferences:

1. Visual Major Learning Style Preference

You learn well from *seeing words* in books, on the chalkboard, and in workbooks. You remember and understand information and instructions better if you read them. You don't need as much oral explanation as an auditory learner, and you can often learn alone, with a book. You should take notes of lectures and oral directions if you want to remember the information.

2. Auditory Major Learning Style Preference

You learn from *hearing words* spoken and from oral explanations. You may remember information by reading aloud or moving your lips as you read, especially when you are learning new material. You benefit from hearing audio tapes, lectures, and class discussions. You benefit from making tapes to listen to, by teaching other students, and by conversing with your teacher.

3. Kinesthetic Major Learning Style Preference

You learn best by experience, by being involved physically in classroom experiences. You remember information well when you actively participate in activities, field trips, and role-playing in the classroom. A combination of stimuli--for example, an audiotape combined with an activity--will help you understand new material.

4. Tactile Major Learning Style Preference

You learn best when you have the opportunity to do "hands-on" experiences with materials. That is, working on experiments in a laboratory, handling and building models, and touching and working with materials provide you with the most successful learning situation. Writing notes or instructions can help you remember information, and physical involvement in class related activities may help you understand new information.

5. Group Major Learning Style Preference

You learn more easily when you study with at least one other student, and you will be more successful completing work well when you work with others. You value group interaction and class work with other students, and you remember information better when you work with two or three classmates. The stimulation you receive from group work helps you learn and understand new information.

6. Individual Major Learning Style Preference

You learn best when you work alone. You think better when you study alone, and you remember information you learn by yourself. You understand new material best when you learn it alone, and you make better progress in learning when you work by yourself.

Reid (1984) also explained about Major and Minor Learning style. Major learning style is kind of learning style that is dominantly possessed by students, whereas Minor learning style is vice versa.

C. Method

The researcher introduced the students to the notion of learning styles on the first meeting in the class. The researcher explained that a questionnaire consisting of 30 items that categorizes learners as major or minor or negligible learning styles of visual, auditory, kinesthetic, tactile, group and/or individual. The students agreed to complete the self-assessment tool, the C.I.T.E Learning Style Instrument, Murdoch Teacher Center, Wichita, Kansas 67208 by Joy Reid, and brought it back to the researcher. After completing the questionnaires, students did the self-scoring sheet to know their scores that shows their perceptual learning style preference. During the next meeting in class, students discussed with their friends in group about their learning styles and had an opportunity to ask questions about the importance and the implications of their

learning styles in learning processes. Finally, the researchers gave the tips and explanations about kinds of activities that can be done by students relates to their learning styles to improve their learning achievements.

D. Results and Discussion
The results of the ESL learning style questionnaire seem to parallel, support, and add to previous research in several ways:

1) ESL students often differ significantly in various ways from native speakers of English in their perceptual learning styles.
2) ESL students from different language (and by extension different educational and cultural) backgrounds sometimes differ significantly from each other in their learning style preferences.
3) Analysis of other variables, such as sex, length of time spent in the United States, major field, and level of education, indicates that they differ significantly in their relationship to various learning style preferences.
4) The data suggest that as ESL students adapt to the U.S. academic environment, some modifications and extensions of learning styles may occur. (Reid, 1987).

The results showed that most of students in each class have visual learning style by the percentage (A:65,21%, B:73,17%, C:66,67%, D:73,91%). The second highest numbers also happens to Kinesthetic learning style (A:69,56%, B:48,78%, C:59,532%, D:65,22%) and Individual learning style (A:73,91%, B:43,90%, C:47,62%, D:69,56%). From those data, it can be concluded that more than a half femalestudents of the university are visual, kinesthetic and individual learners. Tactile learners are only between 40-50 % of students. And the least percentage of students are auditory and group learners. Researchers such as (Dunn, Griggs, & Price, 1993; Park, 1997; Restak, 1979) also found gender differences in their studies of learning styles.

Table 1
Percentages of Perceptual Learning Styles

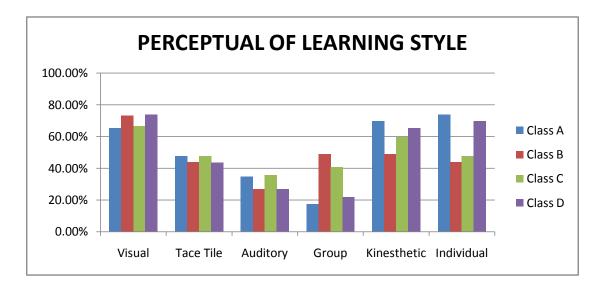| Class	Perceptual Learning Styles					
	Visual	**Tactile**	**Auditory**	**Group**	**Kinesthetic**	**Individual**
A	15 (65,21%)	11 (47,82%)	8 (34,78%)	4 (17,39%)	16 (69,56%)	17 (73,91%)
B	30 (73,17%)	18 (43,90%)	11 (26,83%)	20 (48,78%)	20 (48,78%)	18 (43,90%)
C	28 (66,67%)	20 (47,62%)	15 (35,71%)	17 (40,48%)	25 (59,52%)	20 (47,62%)
D	17 (73,91%)	10 (43,48%)	6 (26,68%)	5 (21,74%)	15 (65,22%)	16 (69,56%)

Figure 1   Perceptual Learning Styles

From the results, it can also be shown that there are no significant influence of learning styles on students' level of study. The learning styles of every class are different. For example when in class A, the most students are visual and individual learners and it also happened to class D which is the level of class are really different. That phenomenon shows that there are no special kinds of learning styles that can determine level of study.

D. Implications

There are some theoretical advice based on reading literature for teachers andeducators. These suggestions try to answer the question how to accommodatedifferent learning styles of pupils and how to meet pupils' needs: (Vlková, Seminar"Learning styles", PPP Hodonín, 11.3.2009)

1. Provide new information by all senses techniques and let your students receiveinformation by hearing, seeing, moving and touching
2. If there is a need to explain something again, try to explain it I different way
3. Provide results firstly for a complex type of learners
4. Visual types need maps, pictures, diagrams, projector, board or interactive board,coloured pens and chalks, flash cards, worksheets with pictures, visual games,computer using, data projector, magazines, books, encyclopedias
5. Auditory types need loud talking and reading, paraphrase the thoughts, use music,rhythm, melody, discussion, debates, lectures, audio and video record, memorychains and drills, rhymes
6. Tactile-kinesthetic types need practical activities, touching things and learningthrough moving, use games and drama, offer your students the choice-projects,reports, reviews etc.
7. Extroverts need to be heard and shown, to work together, in pairs or groups,provide them extra task
8. Introverts are often sensitive, like working individually, do not like to presentthemselves in front of the audience
9. Impulsive are quick and like action, provide them fresh activities
10. Reflective need time for thinking and like working deliberately, provide themspecial time

11. Deductive need exact explanation first and then examples
12. Inductive are able to find relationship between examples and make the rules

References

Boström, L. (2011). Students' learning styles compared with their teachers' learning styles in secondary schools. *Institute for Learning Styles Journal, 1*, 17-38.

Dunn, R. et al. "Aeta-analyticValidation of the Dunn and Dunn Learning Styles Model."

Carver, C. A., Howard, R. A., & Lane, W. D (1999).Enhancing student learning through hypermedia courseware and incorporation of student learning styles.*IEEE Transactions on Education, 42*(1), 33-38.

Chan, D. W. (2001). Learning styles of gifted and non-gifted secondary students in Hong-Kong.*Gifted Children Quarterly, 45*(1), 35-44.

Felder, R. M., &Henriques, E. R. (1995). Learning and teaching styles in foreign and second language. *Foreign Language Annals, 28*(1), 21-31.

Journal of Educational Research (1995). 88. 6 (1995): 353-361.

Johnson, Keith. *An Introduction to Foreign Language Learning and Teaching.*London: Pearson Education Limited.

Reid, C.I.T.E. Learning Styles Instrument, Kansas: Murdoch Teacher

Reid, J.M. *Learning Styles in the ESL/EFL Classroom*. Boston: Heinle&HeinlePublishers, 1995.

Vlková, Seminar "Learning styles", PPP Hodonín, 11.3.2009

APPENDIXES

(C.I.T.E Learning Style Instrument, Murdoch Teacher Center, Wichita, Kansas 67208 by Joy Reid)

Perceptual Learning-Style Preference Questionnaire

Directions

People learn in many different ways. For example, some people learn primarily with their eyes (visual learners) or with the ears (auditory learners); some people prefer to learn by experience and/or by "hands-on" tasks (kinesthetic or tactile learners); some people learn better when they work alone while others prefer to learn in groups.

This questionnaire has been designed to help you identify the way(s) you learn best--the way(s) you *prefer* to learn.

Read each statement on the following pages. Please respond to the statements AS THEY APPLY TO YOUR STUDY OF ENGLISH.

Decide whether you agree or disagree with each statement. For example, if you strong agree, mark:

SA Strongly agree	A Agree	U Undecided	D Disagree	SD Strongly Disagree
X				

Please respond to each statement quickly, without too much thought. Try not to change your responses after you choose them. Please answer all the questions. Please use a pen to mark your choices.

Item	SA	A	U	D	SD
1. When the teacher tells me the instructions I understand better.					
2. I prefer to learn by doing something in class.					
3. I get more work done when I work with others.					
4. I learn more when I study with a group.					
5. In class, I learn best when I work with others.					
6. I learn better by reading what the teacher writes on the chalkboard.					
7. When someone tells me how to do something in class, I learn it better.					
8. When I do things in class, I learn better.					
9. I remember things I have heard in class better than things I have read.					
10. When I read instructions, I remember them better.					
11. I learn more when I can make a model of something.					

Item	SA	A	U	D	SD
12. I understand better when I read instructions.					
13. When I study alone, I remember things better.					
14. I learn more when I make something for a class project.					
15. I enjoy learning in class by doing experiments.					
16. I learn better when I make drawings as I study.					
17. I learn better in class when the teacher gives a lecture.					
18. When I work alone, I learn better.					
19. I understand things better in class when I participate in role-playing.					
20. I learn better in class when I listen to someone.					
21. I enjoy working on an assignment with two or three classmates.					
22. When I build something, I remember what I have learned better.					
23. I prefer to study with others.					
24. I learn better by reading than by listening to someone.					
25. I enjoy making something for a class project.					
26. I learn best in class when I can participate in related activities.					
27. In class, I work better when I work alone.					
28. I prefer working on projects by myself.					
29. I learn more by reading textbooks than by listening to lectures.					
30. I prefer to work by myself					

Self-Scoring Sheet
Instructions
There are 5 questions for each learning category in this questionnaire. The questions are grouped below according to each learning style. Each question you answer has a numerical value.

SA Strongly agree	A Agree	U Undecided	D Disagree	SD Strongly Disagree
5	4	3	2	1

Fill in the blanks below with the numerical value of each answer. For example, if answered Strongly Agree (SA) for question 6 (a visual question), write a number 5 (SA) on the blank next to question 6 below.

Visual

6 = 5

When you have completed all the numerical values for *Visual*, add the numbers. Multiply the answer by 2, and put the total in the appropriate blank.

Follow the process for each of the learning style categories. When you are finished, look at the scale at the bottom of the page; it will help you determine your major learning style preference(s), your minor learning style preference(s), and those learning style(s) that are negligible.

If you need help, please ask your teacher.

Visual	
Question	Score
6	
10	
12	
24	
29	
Total	
Score = Total x 2	

Tactile	
Question	Score
11	
14	

Tactile	
Question	Score
16	
22	
25	
Total	
Score = Total x 2	

Auditory	
Question	Score
1	
7	
9	
17	
20	
Total	
Score = Total x 2	

Group	
Question	Score
3	
4	
5	
21	

Group	
Question	Score
23	
Total	
Score = Total x 2	

Kinesthetic	
Question	Score
2	
8	
15	
19	
26	
Total	
Score = Total x 2	

Individual	
Question	Score
13	
18	
27	
28	
30	
Total	

Individual	
Question	Score
Score = Total x 2	

Major learning Style Preference   38-50

Minor Learning Style Preference   25-37

Negligible   0-24