

The Learning Style Preferences of Semarang State Polytechnic Students in Second Language Learning

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Abstract: *There are a large number of learning styles, strategies and approaches, based on different psychological constructs, however, this study only focus on learning styles in second language learning. It is important to know the students' learning style preferences to avoid mismatch between the learning styles of the students and the teachers' teaching style, in order to get effective teaching-learning outcome. Therefore, the purpose of this study was to examine the preferred learning styles of Semarang State Polytechnic students in English language learning, since being a supporting subject in Semarang State Polytechnic, English only gets a little amount of teaching hours comparing with other subject. The method being used in this study was a cross sectional study of the students in the second year of Semarang State Polytechnic. The samples of this study were taken from all the seventeen study programs in Semarang State Polytechnic, with the response rate was 85.88%. The validated VARK Questionnaires was used to categorize the learning styles of the students. The questionnaire consists of sixteen (16) items which identify four (4) different learning styles: visual, aural; reading/writing and kinesthetic. Descriptive statistics were used to describe the students learning styles. The result of the study showed that 6.2% of the students prefer visual mode, 11.3% prefer aural mode, 2.3% prefer reading/writing mode and 8.1% prefer kinesthetic mode, and the rest 72.1% prefer multiple learning styles. The result of this study can provide useful information for improving the quality of the teaching and learning process in Semarang State Polytechnic. Therefore, it can produce qualified and high competitive graduates.*

Keyword: *learning style, learning preference, second language learning, VARK*

INTRODUCTION

Polytechnic is a tertiary education institution which produces graduates who are ready to work. During their time of studying, the students learn the skills and knowledge which required in the work field. Semarang State Polytechnic consists five (5) departments, with the total number of seventeen (17) study programs, such as: Mechanical Engineering, Civil Engineering, Electrical Engineering, Computerized Accounting, Business Administration, etc. (see table 1) Based on the nature of the field of study, those study programs can be categorized into two groups; they are: Engineering and Commerce. The different nature of the field of study and the subject they learn, make the students adapt his or her own learning style preference, as stated by Stitt-Gohdes (2001) that students preferred learning style have direct contact with materials, topic, or situation being studied. According to Montgomery and Groat (1998) there are some good reasons to incorporate an understanding of learning styles in our teaching.

Table 1: The Distribution of Returned Questionnaires

Department	Study Program	Total number of students	The number of Returned Questionnaires
1. Civil Engineering	1. Civil Construction (D3)	92	8
	2. Building Construction (D3)	61	8
	3. Building Construction and Maintenance (D4)	23	9
2. Mechanical Engineering	4. Mechanical Engineering(D3)	162	7
	5. Energy Conversion (D3)	91	8
3. Electrical Engineering	6. Electrical Engineering (D3)	81	8
	7. Telecommunication Engineering (D3)	68	8
	8. Electronical Engineering (D3)	84	8
	9. Information Technology (D3)	46	7
	10. Radio Network and Computer (D4)	42	9
4. Accounting	11. Accounting (D3)	154	8
	12. Computerized Accounting (D4)	50	9
	13. Banking and Finance (D3)	71	10
	14. Shariah Banking (D4)	52	10
5. Business Administration	15. Business Administration (D3)	109	10
	16. International Business (D3)	44	9
	17. Marketing Management (D3)	109	10

PROBLEM STATEMENT

The problem statement of this study is “How are the learning styles of Semarang State Polytechnic Students, since they have different nature of the field of study and subjects that they students learn?”

OBJECTIVE OF THE STUDY

The purpose of this study was to find out the distribution of the learning preferences of Semarang State Polytechnic students using the latest English version of the VARK questionnaires (version 7.2). This is very important since being a supporting subject in Semarang State Polytechnic, English only gets a little amount of teaching hours comparing with other subject and this is also to avoid mismatch between the learning styles of the students and the teachers' teaching style, in order to get effective teaching-learning outcome.

THEORITICAL BACKGROUND

Learning style is the composite of cognitive, affective and physiological characteristic that serve as relatively stable indicators of how a learner perceives, interacts, and response to learning environments.”A number of studies have investigated the influence of learning style on student achievement (Myers & Dryer; 2006). Each learner is a unique individual who constructs their own knowledge and develops their own

ways learning (Soloman; 2012) According to Fleming (2007) learning styles are educational conditions under which a student is most likely to learn. According to Felder (1995) the ways in which individual characteristically acquires, retains, and retrieves information are collectively termed the individual's learning style. Teaching style and strategy have big influence on the outcomes of teaching and learning process, as well as learning styles and strategies. Dyer (1996) noted that each preferred learning style has a matching preferred method of instruction. Much research support the view that when the students' learning preferences match with their instructor's teaching style, student motivation and achievement usually improve (Stitt-Gohdes, 2003) Having similar opinions Hayes and Allison (1993), and Dyer (1996) stated that by utilizing appropriate teaching technique which match with the students' learning style can improve the outcome of teaching and learning process. Consequently, in order to get good result of teaching and learning process, teachers should apply teaching style and strategy which can accommodate the students learning styles and strategies. Therefore, it is important and beneficial to know the students learning styles, therefore, teachers should not only poses content knowledge but should also be acquainted with their learner's attributes, especially for English teachers in Semarang State Polytechnic. Despite the important of having good English language skills in this globalization era, English is as a supporting subject there and which only gets a little amount of teaching hours comparing with other subjects.

There are a large number of learning styles, strategies and approaches, based on different psychological constructs but there is a great deal of interest amongst educators in identifying whether learners are predominantly visual, aural; reading/writing or kinesthetic learners. Students' approaches to learning can be influenced by their perception that they gain from the learning environment Stitt-Gohdes (2001).

Rebecca L. Oxford (2003) stated that language learning styles and strategies are among the main factors that help to determine how, and how well the students learn a second or foreign language. According to Reid (1995) the students of second language learning varied significantly in their sensory preferences. Ehrman (1996) proposes that although some styles aspects prove to be influential, but there are four biggest major style dimensions which are relevant to the second language learning, they are: visual, auditory, kinesthetic and tactile. Visual students like to obtain a great deal information and knowledge from visual simulation. Auditory students can learn well from lectures, conversation or from oral directions. Kinesthetic and tactile students prefers working with tangible objects, flashcard, etc. However, some students will have a combination of two or three or even the all four of the learning styles, as proposed by Myers & Dryer (2006) that learning styles are not dichotomous. Learning styles generally operate on a continuum or on multiple, intersecting continua. For example, a person might be more visual and auditory but with lesser kinesthetic.

Many factors can influence students learning styles. These factors are: gender, age, academic achievement, brain processing, culture and creative thinking. Students use different sensory modalities for assimilating knowledge and information. According to Fleming there are four sensory modalities, they are: visual (V), aural (A); reading/writing (R) or kinesthetic (K), which is called as VARK.

Briefly, a visual students prefers to learn visually, and aural student uses listening technique to learn. Some students use reading and writing as their first preferences for assimilating and accommodating information. A kinesthetic student experiences learning by all sensory channels. The literature basically indicates that there is a wide acceptance of the concept of learning style and there are a great numbers of study concerning with that (Thompson-Schill, Kramer, Rosenberg, 2009) However, there is disagreement on how to best measure learning styles (Coffield, Mosely, Hall, Ecclestone, 2004).

Similar with the number of learning styles, strategies and approaches, which are based on different psychological constructs. There are also a number of questionnaires to

find out the students' learning styles, and one of them is the VARK questionnaire which is designed by Fleeming. This questionnaire has been specifically developed in the context of modalities and strategies of learning styles. It has been used in some countries to assess learning style preferences of students.

In reviewing the literature of VARK, for instance cross sectional studies show that students preferred a multimodal learning style. However, inconsistent results are also found in some of these studies.

RESEARCH METHOD

Samples

This study was done in 2012 and the samples of this study was the second year students who taken from all the seventeen (17) study program in Semarang State Polytechnic. There were 10 samples of each study program, therefore the total samples of this study was 170 students.

Instrument

Version 7.2 of the VARK was used in this study. This questionnaires measures four perceptual preferences (V, A, R and K). it consists of 16 questions with four options each. The purpose of each question is to categorize the learning style preferences of the respondents. The respondents of this study may choose more than one options for identifying their preferences for multiple learning styles.

Statistical analysis

The distribution of the VARK preferences was calculated in accordance with the guidelines given in the VARK website. Descriptive statistics was used for each VARK component to calculate the percentage of students for each VARK component.

RESULT AND DISCUSSION

Actually there are 10 samples are taken from each study program, so the total sample is 170, however, from 170 questionnaires being spread out only 146 questionnaires were returned and then being analyzed. Therefore, the response rate of this study was 85.88%. (see table 1)

The Mean and standard deviation for the scores of each VARK component are presented in table 2. The scores mean of the students with visual learning mode is 5.1 and its standard deviation is 3.1. Meanwhile, for the students with auditory learning mode, the mean of the scores is 6.5 and the standard deviation is 3.3. The mean of the scores for the students with reading/ writing learning mode is 4.7 and the standard deviation is 2.6. The mean of the scores of the students with kinesthetic learning mode is 6.4, but the standard deviation of the students with kinesthetic mode is 3.2. From table 2, it also can be seen that the scores of the students with Auditory learning mode have the highest mean, that is 6.5. Meanwhile, the score of the students with Reading/ writing learning mode have the lowest mean, that is 4.7.

Table 2: Mean and standard deviation to the VARK questionnaire administered to 146 students at Semarang State Polytechnic Students in the second year in 2012

V.A.R.K.	Mean	Standard Deviation
Visual	5.1	3.1
Auditory	6.5	3.3
Reading/ writing	4.7	2.6
Kinesthetic	6.5	3.2

From the figure 1 it can be seen that 6.2% of the students prefer visual learning mode, 11.3% of them have auditory learning mode, 2.3% prefer reading/writing learning mode and 9.3% have kinesthetic learning mode. This percentage indicates that only 27.9% of the students prefer to learn by a single sensory, modality, such as: visual, auditory, reading/writing or kinesthetic only, and the rest of them, that is 72.1% have multiple sensory modality.

The Percentage of The Students Learning Preferences

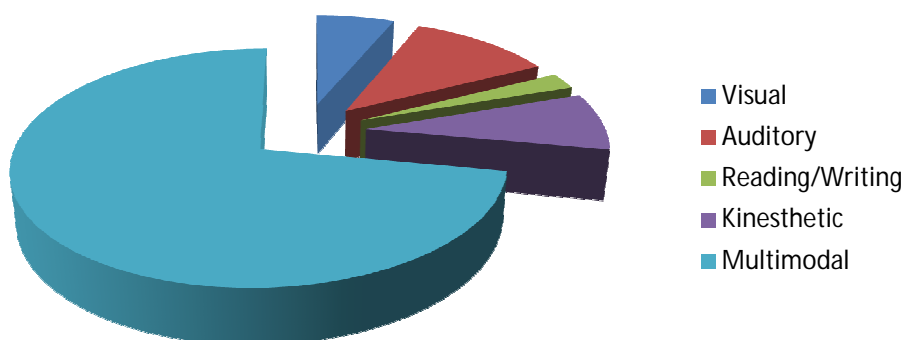


Figure 1: the percentages of students with singular and multi modal learning preferences

The percentage of the students with multimodal sensory is presented in figure 2. The students' learning preference with bimodal (having two modes) sensory is 22.9%. The number of the students with three different kinds modes of learning (trimodal) is 34.3%. And the rest of the students (42.8%) is the number of the students with quad modes. It can be seen from Figure 2, the highest percentage is the students with quad modes, and the second highest is the students with three learning modes. Meanwhile, the students with bimodal learning modes has the lowest percentage.

The Percentage of The Students With Multi Modal Learning Preferences

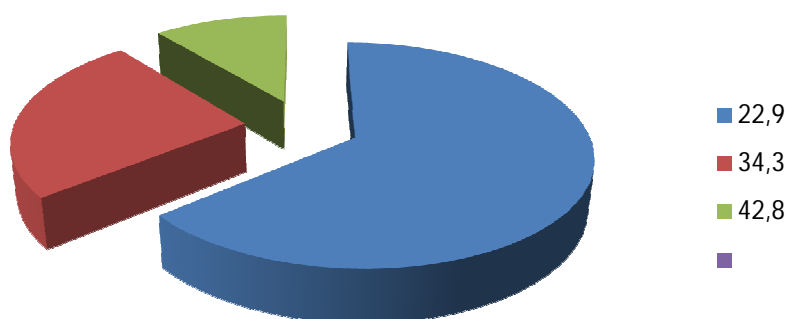


Figure 2: the percentage of the students with multimodal learning preferences

From figure 3 shows that there are six groups of students with bimodal learning preferences, they are: (1) visual-auditory, (2) visual-reading/writing, (3) visual-kinesthetic, (4) auditory-reading/writing, (5) auditory-kinesthetic, (6) reading-writing/kinesthetic. The dominance learning preferences of the bimodal students are visual and auditory (4.8%). The second highest percentage of the students with bimodal learning preferences is visual and kinesthetic (4.7%). However, the result of the shows that the different between the highest and the second highest of the students with bimodal learning preferences is not significant. Similar with that, the different is also not significant between the lowest percentage of the students with bimodal learning preferences with the second lowest. The lowest percentage is the students with reading/ writing and kinesthetic learning preferences, and the second lowest of bimodal students is with visual and kinesthetic learning preferences.

The Percentage of Students with a Preferred Combination of Learning Preferences

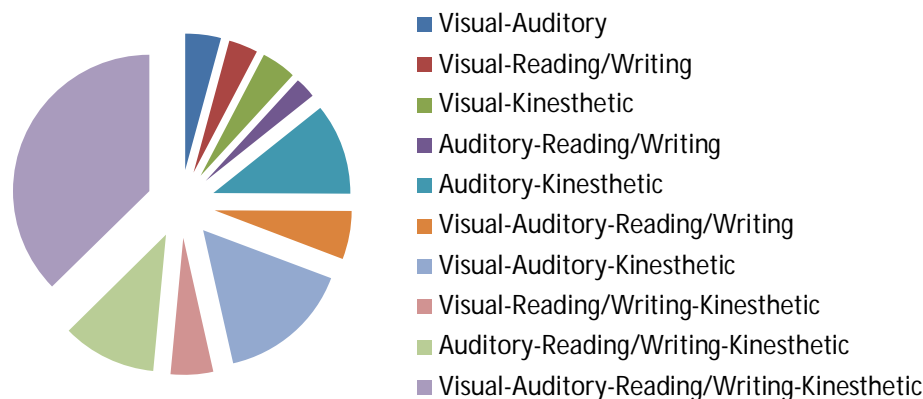


Figure 3: the percentages of students with a preferred combination of learning styles.

There are four (4) groups of students with trimodal learning preferences. The students with visual-auditory-reading/writing (VAR) learning preferences is 6.5%. The students with visual-auditory-kinesthetic (VAK) is 17.9%. The students with visual-reading/writing-kinesthetic (VRK) is 5.7% and the rest 12.7% is the students with auditory-reading-kinesthetic (ARK). The highest percentage of the students with trimodal is the students with visual-auditory-kinesthetic (VAK)..

The percentage of the students with multimodal learning preference is 42.5%. It is the highest of all the students with multimodal learning preferences. It shows that most of the students can use different modes of learning, and it means that they can adapt well with different teaching-learning process.

This study was carried out to gain an understanding of the learning preferences of the students in Semarang State Polytechnic. In general, the findings of the study provide insight into the ways that the students learn. We found that many students prefer to learn by more than one mode of information presentation (42.5%). This is maybe to avoid their boredom for having the class from 7 a.m. until 2 p.m. or about 7 hours in campus.

This study has several limitations. First, the sample of the students were taken only from the second year students. Therefore, the sample map have been biased and might not represent that population of Semarang State Polytechnic students. Second, as there is a large number of learning styles based on different psychological constructs and

assessed using a range of measurements, instruments, it is impossible to categorized students into fixed learning style as many other factors can influence the learning style preferences of the students. However, this study can give an understanding of how the students learning style preference in second language learning (English) in general.

CONCLUSION

The result of this study shows that most of the students in Semarang State Polytechnic have multimodal learning preferences, and only some of them have singular mode of learning preferences that is about one third (1/3) of them. The result of this study can provide useful information for English language teacher in Semarang State Polytechnic to improve the quality of the teaching and learning process. Therefore, it is important that the educators need to be aware of classes containing students where specific learning style vary. However, more research on this topic need to be undertaken before the association between learning style preferences and teaching and learning strategy are more clearly understood.

REFERENCES

- Coffield, et al. 2004. "Learning Styles and Paedagogy: A Systematic and Critical Review": Learning and Skill Reseach Centre. <http://www.lsda.org.uk/files/PDF/1543.pdf>. Retrieved January 20, 2011.
- Dyer, James E. 2006. "The Influence of Student Learning Style on Critical Thinking Skill". *Journal of Agricultural education* Vol 47, Number 1.
- Felder, Richard M. 1995. "Learning and Teaching Styles in Foreign and second Language Education". *Foreign language Annals*, 28, no. 1, 1995, pp.21-31 (<http://nwlinc.com/-donclark/learning/learning.html>). Retrieved in August 2011
- Fleming, N. 2007. VARK: A guide to Learning Style. <http://ww.vark.learn.com/english/index.asp>
- Hayes, John and Christoper W. Allison. 1993. "Matching Learning Style and Instructional Strategy: An Application of The Person-Environment Interaction Paradigm". *Perceptual and Motor Skills*. Vol.76. Issue 1. February 1993. <http://www.amsciepub.com/doi/abs/10.2466/pms.1993.76.1.63> Retrieved February 20, 2011
- Montgomery, Susan M. And Linda N. Groat. 1998. *CRLT Occasional Papers*. The University of Michigan no. 10.
- Oxford, Rebeca. 1989. "The roles of Style and Strategies in Second Language Learning". *CAL Resources Archieve*: <http://www.cal.org/resources/archieve/digest/1989styles.html>. Retrieved January 12, 2011
- Reid, Joy M. 1987. "The learning Style preferences of ESL Students". *TESOL QUARTERLY*, vol 21, No. 1.
- Soloman, Barbara A. *Learning Styles and Strategies*. <http://ace.schoolnet.org.za/cd/ukznscore2b/documents/score2b.html>. Retrieved March 12, 2011
- Stit-Gohdes, W. L. 2001. "Business Education Students' Preferred Learning Styles with Their Teachers' Preferred Instructional Styles: DO they Match?" *Delta Pi Epsilon Journal* 43.No. 3. Summer 2001. Pp.137-151
- Stit-Gohdes, W. L. 2003. "Student Teachers and Their Students: Do Their Instructional and Learning Preferences Match?" *Business Education Forum* 57, No.4 April 2003 pp.22-27.
- Thompson-Schill, S, et al . 2009. "Visual Learners Convert words to Pictures in The Brain and Vice Versa, Says Psychology Study. University of Peninsylvania". <http://www.openn.edu/pennews/news/visual-learners-convert-words-pictures-brain-and-vice-versa-says-penn-psychology-study>. News Article retrieved on July 10, 2011.