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Original Research Article

## **Kinesthetic Learning Style Preferences: A Survey of Indonesian EFL Learners by Gender**

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Article History: Received: 3<sup>rd</sup> April 2017; Published: 29<sup>th</sup> April 2017

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### **ABSTRACT**

This study investigated predominant learning style of 3<sup>rd</sup> semester students of English Language Education Program in Faculty of Cultural Studies at Universitas Brawijaya according to gender. Purposive sampling was used for this research and the sampling in this research was 100 students consist of 34 male students and 66 female students taken from 3<sup>rd</sup> semester English Department students of Faculty of Cultural Studies at Universitas Brawijaya. All participants were administered an Indonesian translated version of Reid's (1984) Perceptual Learning Style Preference Questionnaire consisting of Visual, Auditory, Kinesthetic, Tactile, Group, and Individual, included 30 items. This study used quantitative survey design and Microsoft Excel 2007 as the analysis software. The validity and the reliability of this research were calculated by SPSS v.21. The result indicated that predominant male's learning style was Kinesthetic and estimated by 14 male students (41%) while female students become Kinesthetic and Group and estimated the same percentage, 21 students (332%) for Kinesthetic and 21 (32%) students for Group. The result of the study also shows that both male and female tend to be Kinesthetic. It is suggested that to the English department to adjust the academic activities with the learning styles to enhance educational achievement and encouraging students take responsibility in their whole learning.

**Keywords:** article; gender, learning style, English Department students.

**HOW TO CITE:** Asrining Tyas, P., & Safitri, M. (2017). Kinesthetic Learning Style Preferences: A Survey of Indonesian EFL Learners by Gender. *Journal of English Educators Society*, 2(1), 53-64. doi:<http://dx.doi.org/10.21070/jees.v2i1.688>

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### **1. Introduction**

Students have different learning ways. They have their own way to deal with particular condition and new information. Some students learn by seeing or reading the information, listening the explanation of new information, giving respond to the new information, or even they like to remember the information (Tee et al., 2015: 12). These ways are called as learning style. According to Kolb, Boyatzis, & Mainemelis (1999: 4), learning style is the preferred ways in learning that correlates background knowledge and present environment. These learning ways are used in some patterns and in characterized way. In line with this, Reid (1995) also suggests that learning style is natural, habitual, and preferred ways how people absorbing, processing, and retaining new information. Dunn and

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Peer reviewed under responsibility of Universitas Muhammadiyah Sidoarjo.

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Dunn (1993, cited in Dunn et al., 2009) also mentions that learning style is individual's ways to receive, process, understand, and retain new and difficult information. Therefore, every student has different learning style.

The differences of learning style are influenced by some factors and one of them is gender. Gender becomes the significant variable in learning that differs how male and female learn (Brown, 2007, p. 136). Many researches were conducted to reveal the different style between male and female learning style. Grasha (1996, cited in Rezaeinejad *et al.*, 2015, p. 2) suggests that males and females show different style to respond information. Males tend to practice the information they got. Greb (1999) and Pizzo (1990) in Tatarinceva (2002, p. 3) suggest that males to be more kinesthetic, tactual, visual, and demand informal environment rather than females. They also focus on competition, status, and independency. In line with this, Ong (1989, cited in Tatarinceva, 2002, p. 3) mentions that males' world is based on "adversativeness" that shows aggressive actions. They learn to compete in hierarchical group (Thompson, 1975, cited in Tatarinceva, 2002, p. 3). They demand clear parameter experience and expectations and opportunities to use the target language. In reading and writing activities, males are more excel on document task. They get much benefit on this task because they are good dealing with matrix, format like maps, tables, charts, graphs, diagrams, and set of instruction that involve in document task. Besides, they are also excelling in visual-spatial and mathematical ability.

Other studies also reveal how males learn new information. Grossman and Grossman (1994, cited in Kaur (2014: 1) found that males tend to work independently, "actively manipulating materials", use number, logic, and computerized data. They prefer involving in logical organization and analytical analysis as stated by Meier, Huffman, and Boverie (1995) cited in Dundas (2004: 51). Last, Reid (1987) found that males preferred visual and tactile style and Philbin *et al.* (n.d) cited in Dundas (2004: 49) found that males tend to have assimilator style.

In other hand, females tend to look on their teacher as a helper. They are more interested on something rather than males. They will be more interested to and sit nicely to listen because they have ability to sit passively at conventional classroom. Many studies show that females tend to be auditory. Greb (1999), Pizzo (1990), and Marcus (1977, cited in Tatarinceva, 2002, p. 3) mention that they need quite environment and have self and adult motivated, and conforming. They also have authority-oriented on their learning. They also demand on experience and support (Dundas, 2004). In the ways of communication, females

prefer to have intimacy, consensus in order to create mutual relationship than rivaling with others. In line with this, Ong (1989, cited in Tatarinceva, 2002, p. 3) suggests that females are encouraged to keep the peace.

Females also show different ways in language skills performance. In ways of speaking, females give much attention in listening, sympathizing, and reinforcing interlocutor. They tend to listen, confront the problems, and maintain friendship because they are more social than males (Bress, 2000 cited in Tatarinceva, 2002, p. 4). In line with this, Grasha (1996, cited in Rezaeinejad, Azizifar, & Gowhary, 2015, p. 2) suggests that females are more sympathy, maintain collaboration, and tend to listen to interlocutor carefully. In reading activities, females show that they are more excellent in Expository and Narrative prose than document task. They have ability in reading speed, reading vocabulary, and high level of comprehension (Gates, 1961, cited in Tatarinceva, 2002, p. 4). They also more enjoy and often read than males do as in line with Guthrie and Greaney (1991, cited in Tatarinceva, 2002, p. 5). In writing abilities, females show greater verbal ability such as involving in receptive and productive tasks, comprehending in “high level” task that requires verbal analogies, comprehension of difficult written material, and creative writing. Females are also having “lower-level” measures for instance is fluency (Maccoby and Jacklin, n.d, cited in Dundas, 2004, p. 38). Meier *et al.* (1995, cited in Dundas, 2004, p. 51) also found that females favor involving in learning from experience, reflective observation, and finding practical solutions.

Based on VARK (Visual, Aural/Auditory, Read/Writing, and Kinesthetic) methods, females student tend to be visual only, aural only, read and write only, bimodal, and all VARK methods as in line with Almigbal (2015). Breckler, Joun, & Ngo (2009) also found that female students have multimodal learning preference than male. In line with this, Philbin *et al.* (n.d, cited in Dundas, 2004, p. 49) found that females have predominant learning style as diverger/converger group. Last, females tend to be pragmatic learners as stated by Logan and Thomas (2002, cited Dundas, 2004, p. 51).

Relate to those types of students' learning style, Reid (1995) proposed some of them; these are visual, auditory, kinesthetic, tactile, group, and individual. Visual students will learn best when they see in books, on the chalkboard, or in workbooks. They receive and remember information or instruction by reading and no need much oral explanation. They tend to learn alone with a book because they take a note during lecturing and need to see the facial expression from the lecture. In line with this, Gardner (1983, cited in Larsen-Freeman,

2000, p.169) explains that visual students have ability to orient oneself in environment, create mental images, and sensitivity to shape, size, and color. Visual learners are easy for understanding graphs, diagrams, pictures, flow charts, time lines, schematics, photographs, films, demonstrations, and another visual representation. They also remember face and place and tend to recall information by picturing it in their minds. However, visual students will learn better by seeing the information rather than hearing.

The second learning style which developed by Reid (1995) is auditory. Auditory learners will learn better if they hear spoken words or oral explanation. They remember information by reading aloud and moving lips while reading. They prefer joining traditional classroom setting which dominated by written and oral spoken words such as teacher lectures, notes and worksheets. They are also interested in hearing audio tapes and class discussion.

The third learning style is kinesthetic. Kinesthetic students will learn better when they do experiment and involve physically in the classroom experiences. They remember information well when they actively participate in activities, field trips, and role play. Kinesthetic type is slightly different with tactile learner who tactile learners learn by “handing on” experience the material. They like to do an experiment in a laboratory, hand and build models, touch and work with material. They remember information by taking a note or instruction and do physical involvement in class.

The last learning style that proposed by Reid (1995) were group and individual. Learners who prefer working in a group can be categorized in group major learning style. Students in this style will learn easier when they are put in a group with at least one other student. They appreciate and involve in group interaction and class work with other students. In another side of this style is individual major learning styles in which students tend to work alone by using self-reflection, own thought and ideas, think by them, learn new material individually, and get progress when they work alone.

Even though there have been several studies concerning students' learning style, there is no similar research conducted at English Language Education Program in Faculty of Cultural Studies, Universitas Brawijaya. More importantly, there is still a need to analyze what predominant male and female students' learning style so that this English Language Education Program can improve and varied the teaching method to facilitate all students' learning styles.

Based on this gap, the researcher conducted a survey research to find out predominant learning style of 3<sup>rd</sup> semester students of English Language Education Program in Faculty of Cultural Studies, Universitas Brawijaya by constructing two research problems, these are

1. What is predominant 3<sup>rd</sup> semester male students' learning style of English Language Education Program in Faculty of Cultural Studies at Universitas Brawijaya?
2. What is predominant 3<sup>rd</sup> semester female students' learning style of English Language Education Program in Faculty of Cultural Studies at Universitas Brawijaya?

## **2. Methods**

One hundred and twenty-seven questionnaires were distributed to 3<sup>rd</sup> semester students of English Language Education Program in Faculty of Cultural Studies at Universitas Brawijaya who enrolled in Poetry for ELT class on November and December 2016. Purposive sampling was used as the technique to choose the participants. Poetry for ELT classes consists of 49 (38.58%) male students and 78 (61.42%) female students. From 127 questionnaires distributed 17 (13.39%) questionnaires were not responded because the participants were absent. A total 110 responses (86.61%) were received from the respondents and 10 (10%) responses were omitted because respondents did not answer completely the questionnaire, so the total response in this research was 100 (78.74%) respondents. The research respondents consist of 34 (34%) male respondents and 66 (66%) female respondents that were used to interpret the result.

This research was designed as a survey research. The data of this research was gathered by distributing directly Indonesian version of Reid's (1984) Perceptual Learning Style Preference Questionnaire (PLSPQ) consists of 30 open-ended statements and randomly ordered statements for six learning style preferences.

**Table Distribution of Statements in Perceptual Learning Style Preference Questionnaire**

Perceptual Learning Style	Number of Statement	Total Statements
Visual	6, 10, 12, 24, 29	5 statements
Auditory	1, 7, 9, 17, 20	5 statements
Kinesthetic	2, 8, 15, 19, 26	5 statements
Tactile	11, 14, 16, 22, 25	5 statements
Group	3, 4, 5, 21, 23	5 statements
Individual	13, 18, 27, 28, 30	5 statements
6 perceptual learning styles	30 statements	30 statements

In this research, the participants must respond to the questionnaire based on five points in Likert scale (strongly Agree (SA), Agree (A), Undecided (U), Disagree (D), and Strongly Disagree (SD)). The result of the respond would show the perceptual learning of the students.

For the availability of the Indonesian version of the questionnaire, the questionnaire was translated into Bahasa Indonesia but still the English version. After questionnaire was translated, it was proofread by researcher's supervisor and other English Language Education Program lecturer who is expert in English Language and translation. The aims of this translation were creating acceptable language for the broadest research subjects and the use of English version was used to "discrepancies" between Indonesian version and English version (WHO, n.d, para. 10). For anchoring this study, the wording of the items was modified by the researcher in order to create natural and acceptable questionnaire.

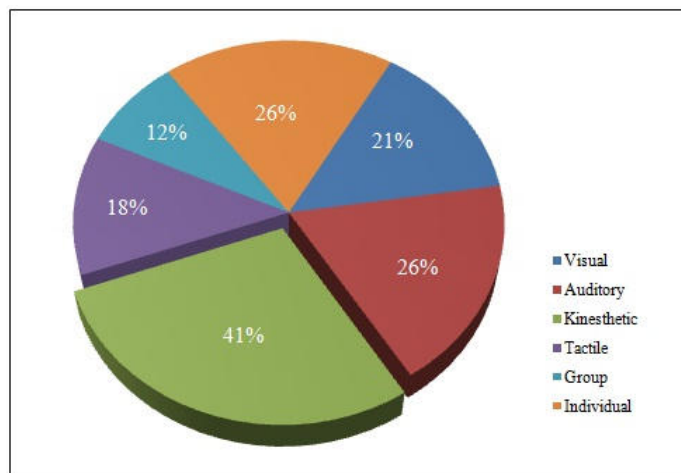
All the data was collected systematically and quantitatively so the data is in numerical form. After the data was gathered, the researcher sorted the data by selecting the complete questionnaires responded. After the researcher sorted the questionnaires, the questionnaires were coded by giving certain code and number, such as F1 for female number one, M1 for male number one, and so on. The coded data was input in Microsoft Excel 2007 to identify the learning style amount and the learning style distribution in percentage (%). Next, the data was displayed in table and pie chart.

### **3. Findings and Discussion**

From 34 (100%) male students as research subject, it was known that 12 (35.29%) male students have more than one predominant learning style; 10 (83.33%) students have two predominant learning styles, a student (8.33%) has predominant learning style, and a

student (8.33%) has four predominant learning styles. Then, the result from the first phase was analyzed further in order to reveal predominant male students' learning style.

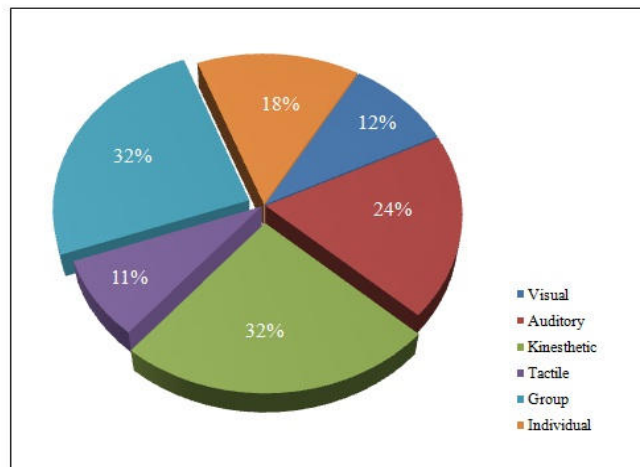
Further analysis of male students learning style revealed that predominant male students' learning style is kinesthetic. The data shows that 14 (41%) male students from 34 (100%) students are kinesthetic. The range between the predominant learning style and the second learning style is significant. It differs by 5 students or 15%.



**Figure 1. Predominant 3rd Semester Male Students' Learning Style**

To answer the second research problem, the calculation on female students' learning style was done. From the calculation, it was indicated that 13 (19.70%) students have more than one perceptual learning style; 12 students (18.18%) have two predominant perceptual learning styles and 1 (1.52%) has three predominant perceptual learning styles. This data were analyzed further in order to predominant female learning style by gathering together the individual predominant learning style of each student.

The analysis indicates that the predominant female students' perceptual learning styles are kinesthetic and group. The data shows that 21 (32%) students are kinesthetic and the same amount, 21 (32%) students are also group learner. There is a significant range between the first predominant learning styles and the second predominant learning style. The first predominant learning styles show 32% from all the amount of female research subject while the second predominant learning style shows 24% from the total number of female research subject.



**Figure 2. Predominant 3rd Semester Female Students' Learning Style**

Based on the finding about predominant male students' learning style, it is proven that male students tend to be kinesthetic. As stated Mulalic *et al.* (2004, cited in Viriya & Sapsirin, 2014: 3) that males show high score for kinesthetic style. The same result also found by Dybvig (2004, cited in Naserieh, 2009, p. 16) that males favor being kinesthetic learners. Other study also show the same result, they were from Riazzi and Mansoorian (2008, cited in Naserieh, 2009, p. 43) and Honigsfeld & Dunn (2003) that found that kinesthetic becomes the major males' learning style.

The finding also revealed that female students become group learner and surprisingly they also become kinesthetic. The condition happens because kinesthetic style tends to be had by many learners as in line with Wintergerst and Decapua (1998, cited in Naserieh, 2009, p. 41) state that kinesthetic is reported becomes the preferred learning styles. Many researches prove this finding; such as Reid (1987) that found from the six learning styles (visual, auditory, kinesthetic, tactile, group and individual) kinesthetic was indicated becomes the major learning style. Melton (1990, cited in Naserieh, 2009, p. 39) also agrees that kinesthetic style was favored by the participants, 331 Chinese university students on his study. The same finding was also found by Hyland (1993, cited in Naserieh, 2009, p. 39) that kinesthetic learners exist in his study. Moreover, Stebbins (1995, cited in Naserieh, 2009, p. 40) and Peacock (2001b, cited in Naserieh, 2009, p. 41) present the same result in their study.



All the findings above are also proven by the finding of this research that found kinesthetic style becomes female students' predominant learning style. Other researches also shows that females tend to be kinesthetic learners such as Wehrwein *et al.* (2007, cited in Viriya and Sapsirin, p. 3) found that female students have kinesthetic preference. The result of this research also reveals that female students have bimodal and multimodal style. Instead of kinesthetic modality, female students also have group style. The same result was also shown by Dybvig (2004, cited in Naserieh, 2009, p. 16) that females prefer being group learners and favor to do group work because they have stronger tendencies for social interaction. Besides, they females have greater verbal competence to create good communication, intimacy, mutual relationship as stated by Ong ((1989, cited in Tatarinceva, 2002, p. 3) that females tend to keep peace in communication.

To sum up, male students favor being kinesthetic learners while female students prefer being kinesthetic and group style. However, respecting to these predominant learning styles are better for the students, teachers, and school in order to elicit educational achievement and encouraging students take responsibility in their whole learning.

#### **4. Conclusions**

Based on the finding that was found, analyzed, and discussed by the researcher, there were several phenomena that revealed from the field. The data that was presented indicates that predominant 3<sup>rd</sup> semester male students are kinesthetic while predominant 3<sup>rd</sup> semester female students were kinesthetic and group modalities. The results indicated that the students learn better when they do experiment and involve physically in the classroom experiences. They remember information well when they actively participate in activities, field trips, and role play. Besides, the students prefer to work in group.

Relaying on the results, the researcher suggest that the students can use the information of their learning style to adapt suitable activities with the learning style. Further, for lecturers, the result of this research can be as the consideration to plan, organize, act, monitor, and assess activities in accordance with these learning styles. Field trip, role play, big group working, small group working, or peer working, and group project are some activities that can be brought in the classroom. For the next researcher, it is suggested to consider wider data to get more various analyses by considering other characteristics background such as age, grade, and achievement. Moreover, the next researcher can also

consider interview to examine students learning style on the data in order to have a complementary data.

### Acknowledgments

We would like to thank all of the students and lecturers who have been involved in this current study. Their cooperative responses make this study possible to be finished.

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