

# LEARNING STYLES PREFERENCES OF ESL STUDENTS AT SMA NEGERI BALI MANDARA (SAMPOERNA ACADEMY)

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## ABSTRAK

Penelitian survei ini bertujuan untuk mengidentifikasi gaya belajar siswa yang mempelajari bahasa Inggris sebagai bahasa kedua berdasarkan jenis kelamin dan prestasi bahasa Inggris siswa. Terdapat 149 siswa yang diikuti sertakan dalam penelitian ini berdasarkan hasil dari teknik pengambilan sampel sesus (*census sampling*). Data dikumpulkan melalui kuesioner dan dianalisis secara deskriptif kuantitatif. Hasil penelitian ini menunjukkan bahwa siswa laki-laki lebih toleran terhadap ambiguitas sedangkan siswa perempuan cenderung tidak toleran terhadap ambiguitas. Namun, siswa laki-laki dan perempuan sama-sama dominan menggunakan otak kiri, reflektif, *field dependent*, dan kinestetik. Berdasarkan variabel prestasi siswa, siswa yang berprestasi tinggi cenderung mempunyai gaya belajar visual dan *field independent* sedangkan siswa yang berprestasi rendah cenderung memilih gaya belajar kinestetik dan *field dependent*. Tetapi, baik siswa berprestasi tinggi maupun rendah sama-sama memiliki toleransi terhadap ambiguitas, dominan menggunakan otak kiri dan sama-sama reflektif.

Kata Kunci: Jenis kelamin, Pilihan gaya belajar, Prestasi, Siswa ESL (bahasa Inggris sebagai bahasa kedua).

## INTRODUCTION

In learning English, people use different ways to acquire the language. Some people tend to learn through reading a text book, other people prefer to listen to audiotapes, and others learn best when they are involved in physical activities, etc. Those different ways of learning are called as learning styles. Further, learning styles are defined as the way in which an individual characteristically acquires, retains, and retrieves information (Felder & Henriques, 1995). Additionally, Tatarinceva (2007) also defined learning styles as follow:

Learning styles is the whole, unique, genetically predetermined complex of characteris-

tic conditions under which a individual function in his/her conscious intellectual activities – concentrates, perceives, processes, retains, and applies new and difficult information – in the unity of progress in learning and acquisition of learning objectives of curriculum with the help of successful interaction with the learning environment and creative use of one's own potential capacities (Tatarinceva, 2007:572).

Moreover, Skehan (1991) as cited in Brown (2007) defined a learning style as a general predisposition toward processing information in particular way.

There are many dimensions of learning styles. Dembo (1988) stated that there are four

dimensions of learning styles such as conceptual tempo (reflective and impulsive), field-independent/field-dependent, sensory modality (visual, auditory, and kinesthetic) and hemisphericity (left and right brain dominance). Furthermore, Brown (2007) stated that tolerance of ambiguity is one of the learning style dimensions that are relevant with second language learning besides those that are stated by Dembo (1988). The first dimension of learning style is sensory modality. Dembo (1988) stated that the sensory modalities that are important for language learning are visual, auditory, and kinesthetic. Visual students prefer to study through reading and studying chart, drawing, and other graphic information. Differently, auditory students tend to study through listening to the lectures and audiotapes while kinesthetic students prefer to learn through demonstration and physical activity involving bodily movement (Brown, 2007: 129).

The second dimension of learning style is brain hemisphericity. Human brain consists of two hemispheres called the right brain and the left brain. The students who have right brain dominance learn effectively through holistic, integrative and emotional information. On the other side, students with left dominance have logical and analytical thought; they tend to learn new material through linear process (Brown, 2007:125).

The third dimension of learning style is conceptual tempo. Conceptual tempo deals with the students' speed and errors in responding the tasks (Dembo, 1988: 68). There are two kinds of conceptual tempo such as reflective and impulsive. Brown (2007) stated that reflective students tend to answer or solve a problem in slow and calculated way. In language learning, these students tend to make a few errors. It is also stated that impulsive students tend to guess quickly in answering or making decision. They tend to make more amounts of errors.

The fourth dimension of learning style is field independent/dependent learning style. Field independent students are able to distinguish parts from a whole, to concentrate on something, or to

analyze separate variables without the contamination of neighboring variables. In contrast, field dependent students are able to see the general configuration of a problem, idea or event (Brown, 2007: 121).

The last dimension of learning styles is tolerance of Ambiguity. Ambiguity tolerant students are able to accept ideologies, events, and facts that contradict their own views. These students are free to think about a number of innovative and creative possibilities without being disturbed by ambiguity and uncertainty both cognitively and affectively. On the contrary, ambiguity intolerant students are more close-minded and dogmatic. They tend to reject contradictory items or the items that are slightly incongruent with their existing system. (Brown, 2007: 126).

In addition, there are some aspects related to learning styles, one of them is gender. Male and female students have different tendency in the way they learn the language. Heffler (2001) as cited in Konak, D'allegro, & Dickinson (2011) stated that females prefer concrete experience learning approach; they usually like to use hands-on experiences in language learning. In making judgments, they are more intuitive and use their feeling. Further, female students are people oriented. They are comfortable and able to tolerate the ambiguity. On the other side, males prefer abstract conceptualization; they tend to prefer an analytic learning approach. Besides that, males are able to think logically and rationally. It is also stated that males like working with symbols and structures. Therefore, the teacher needs to consider the students' gender and learning styles in order to develop appropriate lesson design for the students.

Besides gender, achievement is also an important aspect of learning styles. Learning styles provide valuable insight into learning both in academic and other settings. The individuals' manner or style in approaching a learning situation has an impact on performance and achievement of learning outcomes (Cassidy, 2004:420). Dunn, Beaudry, and Klavas (1989) asserted that

teaching students by using learning approach and condition that is matched with their learning styles make the students be able to achieve higher score on a test. Therefore, identifying students' learning styles is important to strengthen students' academic achievement.

In the line with English teaching and learning activities, Al-Tamimi and Shuib (2009) described that teachers' awareness of their students' learning styles will help the students to improve their ability in learning. It is because the teachers develop method, strategies and techniques based on each learner's need which can help them to gain a success. In other words, teacher should give more attention to their students' learning styles in order to give more appropriate strategy and material in learning activities.

It is also important to increase learners' awareness of their own learning styles because it helps the students to have higher interest and motivation in learning process. By knowing how they can learn best, they may choose the most interesting technique and media for them to learn. When they know what they can do for their own learning, their responsibility in doing independent learning and their self-esteem will be increased. It will lead them to enhance success in language learning (Reid, 1999; Schumann, 1999 as cited in Gilakjani, 2012).

Looking at the importance of learning styles and its aspects, the researcher was challenged to identify the learning style preferences based on the gender and English achievement of ESL students at SMA Negeri Bali Mandara (Sampoerna Academy) in the academic year of 2012/2013. SMA Negeri Bali Mandara (Sampoerna Academy) is a special service school. This school gives special service for the students who have low economic background but have high potential in both academic and non academic fields. This school is a dormitory school in which the students live together and use English in the daily conversation. Besides that, this school applied two curriculums such as School Based Curriculum and Cambridge International Curriculum.

It means that the students are expected to pass both national and international examinations. Because of that, it is urgent to identify the way of the students learning English. Therefore, this study was conducted to investigate the learning style preferences of ESL students at SMA Negeri Bali Mandara (Sampoerna Academy) in the academic year 2012/2013 based on their gender and English achievement.

## METHODOLOGY

This study aimed to investigate the learning style preferences of ESL (English as a Second Language) students based on their gender and English achievement. The population of this study was all students of SMA Negeri Bali Mandara (Sampoerna Academy) which consists of 71 male students and 78 female students. After ranking the student's score, there were 49 high achieving students and 49 low achieving students involved in this study. Census sampling technique was used in this study; it is one of nonrandom sampling techniques in which the researcher surveys the entire realistic population without drawing a random sampling from the population (Lodico, Spaulding, & Voegtle, 2006). Related to the data analysis, the number of male and female students had to be the same, because of that, 61 male students and 61 female students were taken as the sample of the study in gender variable randomly.

Learning Style Preferences Questionnaire was administered to know the students' learning styles preferences. This questionnaire was adapted from Cohen, Oxford, & Chi's (2002) Learning Styles Survey. Cohen et al. (2002) developed this questionnaire that consists of 11 major activities that represent 12 different aspects of students' learning styles. However, in this study, the researcher took only five major activities that are related to the perception of Brown (2007). The activities are using physical senses, dealing with ambiguity, receiving information, dealing with multiple inputs, and dealing with response time.

In this study, the researcher used 55 items of self report questions. The items were design in two languages (English and Bahasa Indonesia) to avoid some misunderstanding. The respondents were expected to indicate how often they do the activities in each item on scale from 1 to 5 when they learn English. Each number notes certain measurement such as (5) always, (4) often, (3) sometimes, (2) rarely, (1) never. The validity of this questionnaire was found using expert judgment and Pearson Product Moment while its reliability was found using Cronbach's Alpha Coefficient. After doing a tryout instrument to 70 respondents it was found that there were 42 items that were valid because the correlation were equal or higher than r table (0.235) with significance level 0.05. It was also found that the questionnaire had very high reliability (.880). However, the researcher only used 33 items of the questionnaire.

The data were analyzed quantitatively. The students' total score in each dimension was compared to know the students' learning style preferences.

## FINDINGS

Since this study aimed to (1) investigate the learning style preferences of ESL students at SMA Negeri Bali Mandara (Sampoerna Academy) in the academic year 2012/2013 based on their gender and (2) investigate the learning style preferences of ESL students at SMA Negeri Bali Mandara (Sampoerna Academy) in the academic year 2012/2013 based on their achievement, the data are presented into four groups; (1) the data of the male respondents, (2) the data of the female respondents, (3) the data of the high achieving respondents, and (4) the data of the low achieving respondents.

The overall Result of Learning Styles Preferences Questionnaire Based on Gender able can be seen in Table 1.

Table 1. Result of Learning Styles Preferences Questionnaire Based on Gender

Based on Table 1, it is found that there were relatively large different preferences among

Learning Styles		Male (%)	Female (%)
Sensory Modality	Visual	38	37
	Auditory	15	23
	Kinesthetic	47	40
Tolerance of Ambiguity	Ambiguity tolerant	55	46
	Ambiguity Intolerant	45	54
Brain Hemisphericity	Left Brain Dominant	62	65
	Right Brain Dominant	38	35
Conceptual Tempo	Reflective	65	61
	Impulsive	35	39
Field Dependent/Independent	Field Dependent	61	53
	Field Independent	39	47

the male and female students in sensory modality learning styles. The percentage of the male students (15%) who are auditory is lower than that of the female students (23%) while the percentage of the male students (47%) who are kinesthetic is higher than that of the female students (40%). However, they have slightly different percentage on visual learning style in which 38% of the male students and 37% of the female students are visual. After comparing the percentage of visual, auditory, and kinesthetic students in each group, it is found that kinesthetic became the most preferred learning style in both male and female students. The second preferred learning style was visual learning style and the last preferred learning style was auditory learning style.

Besides that, relatively large differences were also found in the tolerance of ambiguity. The percentage of the male students (55%) who are ambiguity tolerant is higher than that of the female students (46%) while the percentage of the female students (54%) who are ambiguity intolerant is higher than that of the male students (45%).

Moreover, the male and female students had relatively similar preference toward the brain

hemisphericity. It is found that 38% of the male respondents are right brain dominant and 62% of them are left brain dominant. Similarly, 35% of the female respondents are right brain dominant and 65% of them are left brain dominant. The percentage of left brain dominant learning style in the female students is higher than that in the male students. The percentage of right brain dominant learning style in the male students is higher than that in the female students. However, there is a tendency that both the male and female students mostly had left brain dominant learning style.

In conceptual tempo, it is found that 35% of the male students have impulsive learning style and 65% of them have reflective learning style. Similar result was found in female students that 39% of female students are impulsive and 61% of them are reflective students. Even though the percentage of reflective learning style in the male students is higher than that in the female students, but there is a tendency that both male and female students were mostly reflective in nature.

The male and female students had slightly different preferences in field dependent/independent learning styles. Table 1 shows that 39% of the male students are field independent and 61% of them are field dependent. On the other side, only 53% of the female students are field dependent and 47% of them are field independent. It seems that basically, male and female students were dominantly field-dependent.

Based on students' English achievement, relatively strong differences were also found in sensory modality. It can be seen in Table 2.

Learning Styles		High Achievers (%)	Low Achiever (%)
Sensory Modality	Visual	35	39
	Auditory	31	9
	Kinesthetic	34	52
Tolerance of Ambiguity	Ambiguity tolerant	46	41
	Ambiguity Intolerant	54	59
Brain Hemisphericity	Left Brain Dominant	62	60
	Right Brain Dominant	38	40
Conceptual Tempo	Reflective	59	70
	Impulsive	41	30
Field Dependent/Independent	Field Dependent	46	68
	Field Independent	54	32

Table 2. showed that 34% of the high achieving students are kinesthetic, 35% of them are visual students and the other students (31%) are auditory students. On the other side, most of the low achieving students (52%) are kinesthetic, 39% of the students are visual and 9% of them are auditory. Based on that data, kinesthetic has the highest percentage in both groups of students. But, there were more kinesthetic students in the low achieving students than in the high achieving students. The visual percentage of the high and low achieving students is relatively similar. It is also showed that the percentage of auditory in the high achieving group is higher than low achieving group. Visual, auditory and kinesthetic learning style preferences are well-balance in high achiever group while there is a tendency that the low achieving students mostly preferred kinesthetic learning style.

In ambiguity of tolerance, it is also found that 54% of the high achieving students are ambiguity intolerant and 46% of them are ambiguity tolerant. In the other side, 59% of the low achieving students are ambiguity intolerant and 41% of them are ambiguity tolerant. The percentage of ambiguity intolerant learning style is higher than that of ambiguity intolerant in both the low and

Table 2. Result of Learning Styles Preferences Questionnaire Based on Achievement

high achieving group.

Like the male and female groups, the high and low achieving group also had slightly different preferences on brain hemisphericity. Most of the high and low achieving students had left brain dominance. It was found that 38% of the high achieving students have right brain dominance while 62% of them have left brain dominance. Similarly, 40% of low achieving students have right brain dominance and 60% of them have left brain dominance. It shows that there was a tendency that both the high and low achieving students were mostly left brain dominant.

Based on Table 2, it is found that 41% of the high achieving students are impulsive and 59% of them are reflective. On the contrary, only 30% of the low achieving students are impulsive and 70% of them are reflective. Even though the percentage of reflective learning style is higher than impulsive learning style in both the high and low achieving groups, but its percentage in the low achieving group is higher than that in the high achieving group.

Relatively strong differences were also found in field independent/field dependent style in which 46% of the high achieving students are field dependent and 54% of them are field independent. On the contrary, it is found that 68% of the low achieving students are field dependent and 32% of them are field independent.

## DISCUSSION

There were some different learning style preferences of ESL students at SMA Negeri Bali Mandara (Sampoerna Academy) in the academic year 2012/2013 based on their gender and English achievement.

Based on the result of the questionnaire, there were some differences in learning style between the male and female students regarding the five major dimensions of learning styles. The strongest differences were found in the tolerance of ambiguity learning style. The male students were mostly ambiguity tolerant while the female

students were mostly ambiguity intolerant.

The result of this study is the same as the result of the study that had been conducted by Erten & Topkaya (2009). They found that female students are less tolerant for ambiguity in the process of learning. Further, they stated that female students feel more uncomfortable when they find uncertainty in language learning than their male peers. It is also stated that these students prefer to figure out the sentence structure. Besides that, they tend to find out the meaning of unknown words.

Since the male students dominantly preferred ambiguity tolerant learning style, it is suggested for the teacher to encourage the students to ask questions to the teacher and the other friends when they do not understand something; to keep the theoretical explanations very simple and brief; to deal with just a rule at a time; and to resort to translation into a native language to clarify a word or meaning (Brown, 2007).

In contrast, female students mostly preferred ambiguity intolerant learning style. It likely indicates that female students like figuring out the sentence structure and finding out the meaning of unknown words. In the line with English language learning, deduction seems likely appropriate for teaching students with ambiguity intolerant because in this strategy, the rules are consciously taught to the students to be able to produce or understand the second language.

Strong different preferences were also found in sensory modality. There were relatively large differences between the percentage of kinesthetic and auditory students in the male and female groups. The percentage of the male students who have kinesthetic learning style was higher than that of the female students. It means that the male students favored kinesthetic learning compared with their female counterparts. It is in agreement with what was stated by Tatarinceva (2007) that male students are more kinesthetic than female ones. They like to study through demonstration, games, role play and other activities that require more movement (Brown, 2007). In

addition, the percentage of female students who have auditory learning style was higher than that of the male students. It means that the female students favored auditory learning compared to their male counterparts. This result is in support to the study conducted by Sabatova (2008) who found that there were more auditory female students than the male students; and the study by Tatarinceva (2007) who reported that female students tend to be more auditory in that they like to learn through what they listen to or what is being spoken. Moreover, it is found that the percentage of male students who were visual was higher than female ones. It indicates that male students were more visual than the female students. This finding was also the same as what was stated by Tatarinceva (2007) that the male students tend to be more visual than female students. This very likely indicates that male students are able to learn better through reading and using visual aids.

Even though there were some differences in sensory modality between male and female students, but kinesthetic learning style became the most preferred learning style both in the male and female groups of students. Because of that, it is important for the English teacher to teach the students by using more activities that involve physical movement such as role playing, games, and hands-on experiment; and using visual aids like chart, picture, video, and books. Besides that, the teacher should less teach by telling and lecturing as it is suggested by Burden & Byrd (2010).

The result of the data analysis of this study showed that the male and female students had slightly different learning styles in brain hemisphericity. The percentage of left brain dominance in the female group was slightly higher than that in the male group. It is likely indicates that the female students are able to learn better when the material is presented in linear sequence and they prefer to do structured task. On the other hand, the percentage of right brain dominance in male group was higher than female group. It is in support with the study by Tatarinceva (2007) which found that male do worse on tasks asso-

ciated with more left hemisphere activities and better on tasks associated with more right hemisphere activities.

Even though the percentage the of male students who had right brain dominance was higher than the female students and the percentage of the female students who had left brain dominance was higher than the male student, there was a tendency that both the male and female students had left brain dominant style. It indicates that they are analytic learners who like to study when the materials are presented in linear sequence. In the line with English language teaching and learning activities, Krasen, Seliger, and Hartnett (1974) as cited in Brown (2007) suggested that English teachers should use deductive lesson design to deal with left brain dominant students in which the students are taught rules and given specific information about the language. Furthermore, In order to make the students have better understanding, the material should be presented step by step. However, it is also important to encourage students to use right brain processing in order to be able to deal with generalization in second language learning. In the line with that, English teachers are suggested to use movies and tapes in the class; have students read rapidly and do skimming exercises (Brown, 2007).

Dealing with the conceptual tempo, it was found that the percentage of the male students who are reflective was higher than that of the female students. On the contrary, it is found that the percentage of female students who are impulsive was higher than that of the male students. The result of this study is in support to the study conducted by Sabatova (2008) who reported that male students were more reflective than female ones while female students were more impulsive than their male counterparts.

Even though the percentage of reflective and impulsive learning style in both the male and female were different, but, in general, there was a tendency that both the male and female students dominantly had reflective learning style. Referring to that finding, the teacher should provide

inductive learning situation because some studies found that inductive learning works well for the reflective students. It is also suggested for the English teachers to encourage risk taking because students' willingness to tryout the language and be brave to wrong help the students to be successful in learning a second language. The teacher can encourage the students to take risks by praising students for making sincere efforts to try out language and using fluency exercises (Brown, 2007).

Moreover, male and female students had slightly different preferences in field independent/field dependent style. Even though there were more field dependent students in the male group than in the female group and the amount of field independent learners in female group was higher than male group, but there was a tendency that both the male and female students are mostly field dependent. That is why it is good for the teacher to help field dependent students by using inductive learning approach in which the learners are not taught the rules directly, but are left to discover or induce rules from their experience of using the language (Richards et al, 1988) as cited in Sabatova (2008). Besides that, class and group discussion will give benefit for them because they are more people oriented.

Besides the male and female students, some differences in learning styles preferences between high and low achieving students regarding the five major learning styles also occurred. The strongest differences were found in field dependent/field independent style in which high achieving students mostly preferred field independent learning style while low achieving students mostly preferred field dependent style.

Tinajero & Paromo (1998) had found the similar result in their study. They stated that field independent students show high achievement level and field dependent students show low achievement level. English teacher can help low achieving students who are dominantly field dependent by providing social learning environments where the students can interact each other

as a team and share their knowledge in English language learning.

Relatively strong differences were also found on sensory modality. The percentage of the low achieving students who preferred kinesthetic learning style was higher than that of the high achieving students. Moreover, the low achieving students had higher tendency towards visual learning style than high achiever students. On the contrary, the percentage of high achieving students who had auditory style was higher than that of the low achiever students.

After comparing the percentages of kinesthetic, visual, and auditory style in each group, it was found that the preferences of those styles in high achieving group are well-balance. It indicates that high achieving students are flexible in language learning. They can learn new information through the activities that involve physical movement, visual aids and audiotape or discussion. However, there were relatively strong differences between the percentages of visual, auditory, and kinesthetic style in the low achieving group. The most preferred learning style was kinesthetic. The second preferred learning style in this group was visual style and the least preferred learning style was auditory learning style. The result of this study is in agreement with the statement of Dembo (1988), it is stated that students with strengths in other than verbal modality (auditory) usually lose out in school, particularly on intelligence and achievement tests. Because of that, the teacher is suggested to avoid over-emphasizing auditory learning and match instructional method with the learning style preferences of the students.

Furthermore, regarding to the tolerance of ambiguity, the high and low achieving students had slightly different preferences. The percentage of high achieving students who were ambiguity tolerant was higher than that of the low achieving students. On the contrary, the percentage of the low achieving students who were ambiguity intolerant was higher than that of the high achieving students. Chapelle and Roberts (1986) as cit-



ed in Brown (2007) also found that learners with high tolerance for ambiguity were more successful in certain language task.

However, when it is compared between the percentage of ambiguity tolerance and ambiguity intolerance in each group, ambiguity intolerance was more preferred by both low achiever and high achiever students.

In the line with English language learning, deduction seems likely appropriate for teaching students with ambiguity intolerant because in this strategy consciously apply rules to produce or understand the second language. However, Brown (2007) stated that intolerance can cause a rigid, dogmatic, and brittle mind that is too narrow to be creative. By considering that, the English teachers should also promote ambiguity tolerance by encouraging students to ask the teacher and each other, questions when they do not understand something; keeping the theoretical explanations very simple and brief; dealing with just a rule at a time; and resorting to translation into a native language to clarify a word or meaning, as it is suggested by Brown (2007).

In addition, the high and low achieving students had also slightly different learning style preferences regarding Brain hemisphericity. The percentage of left brain dominance in high achieving group was higher than that in the low achieving group. On the other hand, the percentage of right brain dominance in low achieving group was higher than that in the high achiever group. However, there was a tendency that both the high and low achieving students mostly had left brain dominant learning style. It is related to what was argued by Dembo (1988) that the schools tend to ignore the activities that involve the right brain role. It is also stated that the curriculum of the high school emphasize the left brain function, such as sequenced, verbal, numerical and analytical skills. Moreover, it is difficult for the students who learn better in a nonverbal, intuitive or a consequential manner to get success in school. Because of that, Brown (2007) suggested to encourage students to use right brain

processing is that by using movie and tape in class, having students read passage rapidly, doing skimming exercise, doing rapid “free write”, and doing oral fluency exercises where the object is to get students to talk a lot without being corrected.

The finding of this research also showed that the percentage of the low achieving students who were reflective was higher than that of the high achiever students. On the contrary, the percentage of the high achieving students who were impulsive was higher than that of the low achieving students. However, there was a tendency that both the high and low achieving students were dominantly reflective. Related to this finding, the teacher should use inductive learning approach and guide the students to prepare for high-risk task as it is suggested by Kagan, Pearson, & Welch (1966) as cited in Brown (2007). In addition, Brown (2007) also suggested some techniques to encourage risk taking. One of them is by praising students for making sincere effort to tryout language. Besides that, the teacher may also use fluency exercises where errors are not corrected at that time. The most creative way is by giving outside-of-class assignment to speak or write or otherwise tryout the language. It means that giving more chance for students to use the language without direct correction can help the students to encourage their impulsivity in learning English.

## CONCLUSION

The study of learning style preferences of ESL students shows that there are some differences in research variables such as male-female students and high-low achiever students. It is proven by data the data analysis which is conducted descriptively quantitatively.

It can be concluded that based on students' gender, there were some differences in learning styles preferences among the male and female students. From the five dimensions of learning styles, both the male and female students had relatively similar tendency on sensory modality,

brain hemisphericity, conceptual tempo and field dependent/independent in which they tended to be kinesthetic, left brain dominant, reflective and field dependent in nature. However, they had different preferences on tolerance of ambiguity learning styles. The male students dominantly preferred ambiguity tolerant learning style while the female students dominantly preferred ambiguity intolerant learning style.

In addition, based on students' English achievement, the high and low achiever students had some different learning style preferences. From the five dimensions of learning styles, both the high and low achieving students had relatively similar tendency on tolerance of ambiguity, brain hemisphericity, and conceptual tempo in which they tended to be ambiguity intolerant, left brain dominant and reflective in nature. However, they had different preferences on sensory modality and field dependent/independent learning styles. In sensory modality learning styles, the high achieving students were dominantly visual while the low achieving students were mostly kinesthetic. Moreover, in field dependent/independent learning styles, the high achieving students dominantly preferred field independent learning style while the low achieving students dominantly preferred field dependent learning style.

In relation to the conclusion, the researcher would like to propose some suggestion. First, it is suggested that the English teacher should consider the learning styles differences among the students in designing the material in English as a second language class. It is because students have different ways in learning English. Since there are some different learning styles preferences of ESL learners based on their gender and achievement, the teacher should consider their preferences to determine the appropriate strategy or techniques for teaching male, female, high achiever and low achiever students. It is important to integrate students' learning styles preferences in the language classroom activities.

Second, it is suggested for the students

to be aware of their own learning styles preferences because learning styles play an important role in learning process especially, learning English as a second language. Students should recognize their strength to take advantage of ways they learn best. It is also important for the students to enhance their learning by being aware of the learning styles areas that they do not use and by developing them. English tasks which are not appropriate with their learning style preferences can help the students to develop the learning style that are not preferred and explore their learning potential.

The last suggestion is proposed to the other researchers. Since, identifying students' learning style preferences can give contribution to the development of English as second language teaching and learning, it is important to do further research about students' learning style in language learning in a larger area. The other researchers can also approach the issue from many different perspectives. Further, it is also suggested to identify the teachers' learning styles preferences and link it to their teaching strategies.

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