

**MATCH AND MISMATCH BETWEEN STUDENTS' LEARNING
 STYLES AND TEACHER'S TEACHING STYLES RELATED TO
 STUDENTS' ENGLISH PROFICIENCY**

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ABSTRACT

Penelitian ini bertujuan untuk menginvestigasi kesesuaian dan ketidaksesuaian antara gaya belajar siswa dan gaya mengajar guru dalam pembelajaran bahasa Inggris serta untuk melihat efek dari kesesuaian dan ketidaksesuaian tersebut terhadap kemampuan bahasa Inggris siswa. Penelitian ini merupakan studi kasus di salah satu universitas. Responden penelitian ini terdiri atas seorang guru dan 32 siswa. Dalam hal pengumpulan data, penelitian ini menggunakan angket dan wawancara yang masing-masing diberikan kepada guru dan siswa yang dilanjutkan dengan observasi kelas. Kemudian data yang telah diperoleh dianalisis berdasarkan prinsip data analisis interpretative dan empirical. Hasil penemuan dari penelitian ini adalah sebagian besar siswa memiliki gaya belajar kinesthetic yang diikuti dengan gaya belajar visual, audio, dan verbal. Sebaliknya, gaya mengajar guru lebih dominan mengarah pada gaya mengajar verbal. Maka, dapat diasumsikan bahwa terdapat ketidaksesuaian antara gaya belajar siswa dan gaya mengajar guru. Namun, ketidaksesuaian itu tidak memberikan efek negatif terhadap kemampuan siswa.

Key words: Learning styles, teaching styles, match and mismatch, and achievement.

A. INTRODUCTION

There have been two contradictory arguments related to the issue whether the match or mismatch between students' learning styles and teachers' teaching styles may affect students' achievement or not. The first groups argue that there should be a match between students' learning styles and teachers' teaching styles. One of researchers says that style differences between students and teachers consistently and negatively affect students' grades.² Then, when students' learning styles match their teachers' teaching styles, students' motivation and achievement usually improve.^{3, 4} Moreover, the teachers

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² Wallace, B., and R.L. Oxford, *Disparity in Learning Styles and Teaching Styles in the ESL Classroom: Does This Mean War?*, AMTESOL Journal 1, 1992, p. 45-68.

³ Miller, P, *Learning Styles: The Multimedia of the Mind*. Research Report. (ED 451 140), 2001, p. 122

have to match their teaching styles to students' favored learning styles, provide facilities which are suitable with every individual task and styles, help students to get successful learning styles, support the students' imagination and creativity, and the most important thing is to recognize students' learning styles.⁵

Meanwhile, the second groups argue against the previous assumption. It is said that it is impossible to match teachers' teaching styles and students' learning styles. It is because learning styles may differ according to age and situational factors such as types of class and subject being studied.⁶ Then, it is found that the matching of learning and teaching styles is more appropriate to vocational school students who are field independent.⁷

Moreover, it is argued that although students tend to express personal preferences, there is no evidence saying that identifying students' learning styles produces better outcomes. Furthermore, among the twenty two studies that they have done, there are only two studies which show that there is a significant effect of a matching learning styles and teaching styles toward students' achievement.

Regarding the two contradictory arguments, there have been many discussions on the effective ways to deal with teachers' teaching and students' learning styles differences. Therefore, this study is conducted as a need to investigate the phenomenon of the match and mismatch between teachers' teaching styles and students' learning styles, also to see whether the match and mismatch between them can affect students' English proficiency or not. Specifically, this study is directed to answer the following questions.

- 1) What learning styles do students have in learning process?
- 2) What teaching styles does the teacher apply in teaching process?
- 3) Is there any match or mismatch between students' learning styles and teacher's teaching styles?

⁴ Gohdes, W. L, *Student Teachers and Their Students: Do Their Instructional and Learning Preferences Match?* Business Education Forum 57, no. 4, 2003, P:22-27.

⁵ Kazu, I.Y, *The Effect of Learning Styles on Education and the Teaching Process.* (Turkey: Science Publication, 2009), Journal of Social Sciences 5(2), p. 85-94

⁶ Spoon, J.C & Schell, J.W, *Aligning Students' Learning Styles with Instructor Teaching Styles.* Journal of Industrial Teacher Education, Volume 35, Number 2, 1998, p. 41-56

⁷ Hayes, J. & Allinson.C.W, *Learning Styles and Training and Development in Work Settings: Lessons from Educational Research,* Educational Psychology, vol. 17, no. 1-2, 1997, pp. 185-193

- 4) Is there any effect of the match and mismatch between students' learning styles and teacher's teaching styles toward students' English proficiency?

This study shortly presents some theoretical foundations related to learning styles, teaching styles, match and mismatch between them, and the effect of the match and mismatch toward students' achievement.

B. CONCEPT OF MATCH AND MISMATCH

1. Learning Styles

Learning styles are defined closely related to learning strategies.⁸ Learning styles are "general approaches for example, global or analytic, auditory or visual that students use in acquiring a new language or in learning any other subjects".⁹ They are also related to person's personality and cognition showing the tendencies and preferences which differentiate the person from another person.¹⁰ Thus, it can be concluded that learning style is different with learning strategies. It can be defined as characteristics, behavior, and perception toward learning which can be seen through cognitive, affective, and psychological aspects.

2. Types of Learning Styles

There are many types of learning styles based on different aspects. They are Modalities; visual, audio, and kinesthetic, Kolb's, Honey and Mumford's, and Felder and Silverman's learning styles. First, modalities is firstly developed and demonstrated by Dunn and Dunn and previously called as learning channels or modalities which are divided into some learning styles. They are visual, auditory, kinesthetic and tactile.¹¹ Then, Modalities learning styles are also sometimes divided into four categories; visual (verbal), visual (non-verbal), auditory and kinesthetic.

Secondly, Kolb's learning styles is developed by David Kolb. It is argued that effective learning entails the possession of four different abilities; concrete experience abilities (feeling), reflective observation abilities (watching), abstract conceptualization

⁸ Oxford, R.L., *Language Learning Styles and Strategies. Learning Styles & Strategies/Oxford, GALA*, 2003, p. 7

⁹ *Ibid.*, h. 7-8

¹⁰ Brown, H. D., *Teaching by Principles: An Interactive Approach to Language Pedagogy*. (New York: Addison Wesley Longman, Inc, 2000), p. 210

¹¹ Dunn, R & Dunn, K., *Learning Styles/ Teaching styles: Should They, Can They be matched?*. *Educational Leadership*, Vol. 36, 1979, p. 238-244.

abilities (thinking), and active experimentation abilities (doing).¹² Then, Felder and Silverman develop their learning style model. They classify students as having one of the following four learning style dimensions. They are: sensing or intuitive, visual or verbal, active or reflective; or, sequential or global.¹³ The last type of learning styles is developed by Honey and Mumford which is based on Kolb's learning style development. There are four categorizations of Honey and Mumford's styles. They are: (1) Activist, (2) Reflector, (3) Theorist, and (4) Pragmatist.¹⁴

Comparing Modalities, Kolb, Felder and Silverman, also Honey and Mumford types of learning styles, some types seem to be overlap which means that they have similarities with other types while some others also have differences. Regarding those learning styles similarities, this study simply generalizes them into six big categories. They are: (1) visual represents diverging learning styles; (2) kinesthetic represents converging and accommodating learning styles; (3) active represents activist sequential and diverging learning styles; (4) reflective represents global and reflectors learning styles; (5) audio represents assimilating learning styles and (6) verbal represents intuitive and sensing learning styles. Regarding those categorizations, this study focuses the investigation on four types of students' learning styles which are proposed by experts' theory. They are audio, visual, verbal, and kinesthetic.

3. Teaching Styles

Teaching styles are sometimes perceived as synonymous with teaching approach, methods, and techniques. In theory, they are actually different. One of teaching styles definitions is given by Kaplan and Kies who argue that teaching styles refer to behavior of the teachers in teaching learning materials to learners including providing media.¹⁵ Then, teaching behavior reflects "the beliefs and values that teachers hold about the learner's roles in the exchange".¹⁶ Thus, it can be concluded that

¹² Kolb, D.A. (1984: 142-150). *Experiential Learning: Experience as the Source of Learning and Development*. Prentice Hall, New Jersey.

¹³ Felder, R.M., & Spurlin, J. *Applications, Reliability, and Validity of the Index of Learning Styles*, International Journal of English Education. Vol.21, No.1,2005, p.103-112.

¹⁴ Honey, P & Mumford, A. (1982:231-240). *The Learning Styles Questionnaire, 80-item version*, (Maidenhead, UK: Peter Honey Publications, 1982), p. 231-240

¹⁵ Kaplan, E. J., & Kies, D. A. *Teaching and learning styles: Which came first?* Journal of Instructional Psychology, 22(1), 1991, p. 29-33

¹⁶ Heimlich, J.E. & Norland, E. *Teaching Style: Where Are We Now?*, New Directions for Adult and Continuing Education, no. 93, 2002, p. 17-25

teaching style represents teachers' personal qualities and behavior which emerge and can be seen in conducting teaching.

4. Types of Teaching Styles

Related to types of teaching styles, there have been many researchers proposing types of teaching styles. First group of teaching styles are: (1) expert, which provides students with knowledge and transfers the knowledge to build students' competences; (2) formal authority which possesses the authority in the classroom, constructs the learning activities, states the goals, and gives positive and negative feedback; (3) personal model which gives guidance to students, shows them how to do things, and encourages students to learn; (4) facilitator which develops students' activities in learning as well as facilitates it with interesting and effective learning media; (5) delegator which develops students' ability to learn independently and helps them to become autonomous learners.¹⁷

Then, different from the previous teaching styles, there are some categories of teaching styles.¹⁸ They are: (1) the task-oriented who provides materials to be taught, designs some tasks, and gets students to perform the task, (2) the cooperative planner who plans the lessons with the students' cooperation, (3) the child centered who provides the needs for students to facilitate whatever interests them, (4) the subject centered who "focus on organized content to the near exclusion of the learner. By covering the subject they satisfy their consciences even if little learning takes place", (5) the learning centered who "have equal concern for students and for curricular objectives, the materials to be learned", (6) the emotionally exciting and its counterpart who "show their own intensive emotionally involvement in teaching.

Taking a look at the previous types of teaching styles, there are some overlaps among them. Thus, this study focuses an investigation on teaching styles proposed by Grasha. Particularly, how those teaching styles are applied in accommodating students' learning styles is explored, observed and analyzed.

¹⁷ Grasha, A, *Teaching with Style*, (Pittsburgh, PA: Alliance Publishers, 1996), p. 152-160

¹⁸ Fischer, B.B., & Fischer, L, *Styles in Teaching and Learning. Educational Leadership*, 1979, p. 67-70

5. Match and Mismatch between Teaching and Learning Styles and its Effect toward Students' Achievement

Matching between teachers' and students' styles in learning means to employ instruments to identify students' learning styles and provide instructional alternatives to fit their differences.¹⁹ In line with Nuckles's argument, it is said that an effective way of solving problems related to styles differences in classrooms is to match them.²⁰ The match learning styles and teaching styles for teachers is to change their own styles and strategies and provide a variety of activities to meet the needs of students' different learning styles.

In relation to the match between students' learning and teachers' teaching styles, and students' achievement; many studies support the perception that when students' learning styles match their teachers' teaching styles, students' motivation and achievement usually improve.²¹ In fact, there have been many studies which find that when students' learning styles and teachers' teaching styles do not match, it will affect students' learning and attitudes.²² However, other studies show that matching teaching and learning styles is not an effective determinant of the best achievement or success among learners. It is because learning styles may differ according to ages and situational factors such as the types of classes and subjects being studied.

This study was conducted under interpretative and empirical paradigm. The interpretative paradigm following case study approach of qualitative research was applied in analyzing data. Then, the empirical paradigm applying statistics formula was used to validate data which were derived from the interpretative paradigm. Particularly, a correlation coefficient formula was used to see the match and mismatch between students' learning styles and teacher's teaching styles, and one way Anova formula was used to see the effect of the match and mismatch toward students' English proficiency. The study was conducted in one of universities. A class which consists of 32 students with one English teacher taught them was chosen. Those 32 students were chosen

¹⁹ Nuckles, C. R, *Student-Centered Teaching: Making It Work*, Adult Learning 11, no. 4, 2000, p. 17-22

²⁰ Spoon, J.C & Schell, J.W, *Aligning Students' Learning Styles with Instructor Teaching Styles*, Journal of Industrial Teacher Education, Volume 35, Number 2, 1998, p. 41-56

²¹ Miller, P, *loc. cit.*

²² Littlewood, W. N. F. Liu, & C. Yu, *Hong Kong tertiary students' attitudes and proficiency in spoken English*, RELC Journal, vol. 27, no. 1, 1996, p. 70-88.

because the teacher judged them as intermediate qualified students who had understood and cared to their behaviors and styles in learning.

In order to collect the data, this study applied triangulation methods of data collection. They were: (1) survey: giving questionnaires to students and the teacher, (2) observation: passive classroom observation, (3) interview: written interview for students and oral interview for the teacher, (4) and document analysis: students' English writing summative score. After the data had been collected, they were analyzed based on the interpretative and empirical paradigm of data analysis.

C. FINDINGS AND DISCUSSION

1. Students' Learning Styles

This part portrays the result related to the first research question which is about students' learning styles. In order to decide what learning styles the students have in English learning process, there are two main sources of data which are analyzed. They are data from questionnaires and interview.

Through the questionnaire, it was obtained that there are only 4 students whose P-value are lower than 0.005 (<0.005). It indicates that there are only 4 students whose styles can be categorized and directed to one type of styles. In fact, only 1 student is categorized as visual and 1 student is categorized as audio. Then, there are 2 students who are categorized as verbal. The other 28 students cannot be categorized as having certain types of style because their P-value is higher than critical value of variance (0.005). Thus, they are regarded as having the four styles as their preferred styles.

Then, through the interview, it is seen that among the 32 students, 8 students prefer visual. Besides, 1 student is categorized as a verbal learner. Then, 8 students are regarded as audio. Moreover, 15 students are regarded as kinesthetic learners because they learn faster by practicing, and like to do experiment.

Therefore, by combining the data found from questionnaire and interview, students' choices on types of learning styles can be validated and seen clearly. Briefly, the differences of students' learning styles are illustrated in table 1.

2. Teacher's Teaching Styles

This part presents two main results of teacher's teaching styles derived from observation and interview. In order to know types of teacher's teaching styles which are

applied, indicators of teaching styles were adapted from Grasha's teaching styles. They are expert, personal model, facilitator, and delegator.

The observation result displays that related to the expert; teacher's teaching styles are mostly directed to spoken and written explanations. Then, regarding the second teaching styles i.e. personal model; the teacher often provides written examples and demonstrates how to do something, she usually gives audio examples, and she sometimes provides visual examples in teaching. Thus, related to personal model, the observation finding implies that teacher's teaching styles in giving examples or models of teaching give advantages to verbal and kinesthetic more than the other two styles; visual and audio.

Table 1. Students' learning styles categorization seen from the interview

NO	Learning Styles	Total of students	Description
1.	Visual	8	Learning by watching, preferring visual media (pictures, tables, etc), and enjoying watching in leisure time.
2.	Verbal	1	Learning by reading written explanations, preferring books as learning media, and enjoying reading in leisure time.
3.	Audio	8	Learning by listening to spoken explanations, preferring audio media (sounds and spoken texts), and enjoying listening to songs and music.
4.	Kinesthetic	15	Learning by practicing, preferring to do experiment, and enjoying playing games, and doing experiment in leisure time.

Moreover, related to facilitator; developing students' activities in learning as well as facilitating and providing them with interesting and effective learning media, it was obtained that the media which are used by the teacher in teaching is power point presentation and sometimes printed texts. Thus, it is assumed that teacher's teaching styles in facilitating students' learning are more likely to give more advantages to verbal learners in which she designs power point presentation and provides texts and pointers to be read by students.

Finally, related to delegator; developing students' ability to learn independently and helps them to become autonomous learners, most of the teaching styles are matched to kinesthetic learners who enjoy learning through practicing, which in this case, they

enjoy to practice writing some kinds of texts such as descriptive, recount, and procedure texts. In addition, audio learners also take advantages from the teacher's teaching styles, in which they enjoy having pair and group discussions to share ideas orally with their friends.

3. Match and Mismatch between Students' Learning Styles and Teacher's Teaching Styles

The match and mismatch between students' learning styles and teacher's teaching styles are derived from two sources i.e. from questionnaire and observation. Through the questionnaire, it is found that teacher's teaching styles match kinesthetic learning styles more often than other learning styles. Therefore, it is concluded there is a match between them. It is because most of the students have kinesthetic learning styles and teacher's teaching styles are also more matched to kinesthetic learning styles.

Different from the interview result, the mismatch between students' learning styles and teacher's teaching styles was seen from the observation. The observation to teacher's teaching styles was done for about seven meetings. Observation notes and transcription were analyzed to know the frequency of teacher's teaching styles in matching students' learning styles. Briefly, the result of observation analysis is presented in table 2.

Table 2: Frequency of matching teaching styles and learning styles

No	Learning Styles	Total of Students	Frequency of Teaching Styles in Matching Learning Styles							Total
			1 st	2 nd	3 rd	4 th	5 th	6 th	7 th	
1.	Visual	8	0	0	3	1	1	1	3	9
2.	Verbal	1	5	1	3	4	4	3	1	21
3.	Audio	8	1	2	2	3	3	2	1	14
4.	Kinesthetic	15	1	2	1	3	2	2	2	13

Table 2 tells that from the 1st through the 7th observation, it is counted from the four indicators of teaching styles that teacher's teaching styles match and facilitate verbal learning styles (21 times) more often than the other three styles; audio learning styles (14 times), kinesthetic learning styles (13 times), and visual learning styles (9 times). In contrast to the finding derived from the previous questionnaire, from the observation, it is found that among the four learning styles (visual, verbal, audio, and

kinesthetic), verbal learning styles gets more match to teacher's teaching styles. It means that teacher's real teaching styles in the classroom tend to facilitate verbal learning styles more than other styles. Unfortunately, in fact, there is only one student who is categorized as verbal learner. Thus, it seems that there is a contradiction between the number of students and the frequency of matching to the learning styles.

Therefore, from the observation data, it is assumed that there is a mismatch between students' learning styles and teacher's teaching styles. It is because most of the students' learning styles are kinesthetic but teacher's teaching styles are more matched to verbal learning styles. This finding is in line with other finding which finds that there is no match between students' learning styles and teacher's teaching styles.

In conclusion, regarding the result obtained from questionnaire and observation, it is found that there is a different finding related to the match and mismatch between teacher's teaching styles and students' learning styles. The questionnaire data show that teacher's teaching styles is more matched to kinesthetic learning styles, while the data derived from observations show that teaching styles are more matched to verbal learning styles.

4. The Effect of Match and Mismatch between Students' Learning Styles and Teacher's Teaching Styles toward Students' Language Proficiency

Regarding the relationship between students' learning style preferences and their language proficiency, the correlation coefficient formula (r) proves that there is a positive correlation between students' learning styles and their English scores, in which the correlation coefficients are: visual; 0.186, verbal; 0.259, audio; 0.410, and kinesthetic; 0.175. However, the value of correlation is not really strong, because the value of correlation for the four learning styles is below the critical value; 0,599.

Thus, among the four learning styles, the correlation coefficient (r -value) between audio learning styles and students' English scores is the highest correlation, and then followed by verbal, visual, and kinesthetic learning styles. In other words, the more audio students in learning, the higher the English scores they have. Due to the positive correlation between students' learning styles and their scores, it can be assumed that students' learning styles preferences have significant effect toward their

achievement. This finding is in line with what other findings arguing that participants' preferred learning styles have significant influence on students' achievement.

In relation to the effect of the match and mismatch between students' learning styles and teacher's teaching styles toward students' language proficiency, the previous section has reported that there is a mismatch between students' learning and teacher's teaching styles. However, statistical calculation using one way Anova proves that there is no significant difference on students' mean scores. It is indicated by the value of p (0.8064) which are higher than 0.05. This can be seen in table 3.

Table 3: The comparison of students' scores

No	Learning styles	Mean	F count	P-value	Remarks
1.	Visual	7	0.0326	0.8064	Significantly not different
2.	Kinesthetic	7.57			
3.	Audio	7.25			
4.	Verbal	7			
There is a significant difference if $p < 0.05$					

The calculation result indicates that types of learning styles do not differentiate the students' scores in learning. Thus, it can be implied that the mismatch between teacher's teaching styles and students' learning styles in this research doesn't affect students' proficiency which is in this case directed to English scores.

Therefore, what has been found in this study is in line with some other research findings which say that matching and mismatching between teaching and learning styles is not an effective determinant of the best achievement or success among learners. It is because learning style may differ according to age and situational factors such as the type of class or subject being studied.²³ In fact, it is because this study is conducted in a context of adult learners who tend to be more flexible in adapting different teaching styles.²⁴ Then, the finding of this study is different with others' finding arguing that mismatch gives negative impact on students' motivation²⁵ and students' achievement.²⁶

²³ Spoon, J.C & Schell, J.W. Aligning Students' Learning Styles with Instructor Teaching Styles. *Journal of Industrial Teacher Education*, Volume 35, Number 2, 1998, p. 41-56.

²⁴ *Ibid.*, h. 55

²⁵ Jurriss, *Op.cit.*,

²⁶ Ghada, *Op.cit.*,

D. CONCLUSION

There are some conclusions obtained from this study. First, it is concluded that kinesthetic learning styles are the most favorite styles preferred by students, but teacher's teaching styles are more directed to verbal learning styles. Therefore, it is presumed that there is a mismatch between students' learning styles and teacher's teaching styles. Then, statistical calculations using correlation coefficient formula concludes that there is a positive relationship as well as an effect of students' learning style preferences toward their achievement, English scores. However, it is also concluded that the mismatch between students' learning and teacher's teaching styles in this study does not contribute any effects to students' English proficiency. Finally, based on the findings, it was recommended to future researchers to provide more related theories and to conduct this type of research with a great number of participants.

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