



# Learning Style of MBTI Personality Types in History Learning at Higher Education

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## Abstract

This study aims to identify the dominant type of learning style in history education students at Higher Education. Types of learning styles used in this study are the learning style according to the Myers-Briggs Type Indicators (MBTI). These are Extrovert, Introvert, Sensing, Intuition, Thinking, Feeling, Judging and Perceiving. The sample of this study involving a total of 600 students at a second year (2013) and third year (2012) upon history education major from two universities of education are in Jember and Bandung, Indonesia. Statistic analyses used in this study is descriptive statistic upon SPSS (Statistical Package for the Social Science 22.0). The result showed that the dominant learning style is in judging the type of learning style aspect. Implications of this study showed that teacher should comprehend a type of learning style for evoking an effective learning.

**Keywords:** Learning Style, MBTI, History Lesson

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## 1. Introduction

Mental and morality development of students to be education development focused at the present. The objective of education is reflected through the implementation of the character curriculum. Each subject has the potential to explore the character values that have been established on the character curriculum. Some character values that becomes the objective of the curriculum are religious, tolerance, patriotism, responsibility and etc. One of the subjects that have a great potential in reflecting the values of characters is history subject. This is because the content of history subject is events in the past which have interested and moral values in terms. Throughout these historical events, educators have an opportunity to arouse patriotism and nationalism learners. These indicators have a relationship with character values on character curriculum. Taking the moral values of the past events in the history of learning as a means to understand the situation that occurred today and be considered for a decision on the future [1].

History subject is reasonably awakened citizen's character through that education. But we need to realize that historical subject had a kind of problems on learning implementation. Problems in history learning are the low motivation of students to this subject. Several studies have been done to improve interest and motivation of pupils to

history learning. Interest and motivation of pupils are the important way that should be considered in order to form an effective learning.

Lack of interesting in history learning weakness will affect to students academic achievement. Lack of interesting students towards history subject caused by some angle aspects such as teaching methods, teaching materials, pedagogical ability of educators as well as other supporting factors are less relevant. In the end, the lack of students interesting will have an impact on the low academic achievement of pupils themselves. Studies conducted by, Ahmad et al., [2] showed that the proficiency of teachers to teach history to have a significant relationship to the academic achievement of students. Through improving the quality of teachers' teaching skills, the selection of appropriate methods and strategies that teachers can establish an effective teaching history.

Selecting of the methods and learning strategies should be related to characteristics of students. The problems that arose in history learning are about the difference of students characteristic. The one manifestation of differences in student characteristics is in learning styles. Educators understanding on learning styles has indirectly brought them to understand the student's characteristics and purposes of what they need. Identification of learning styles expected to provide reference materials to educators in determining the methods, strategies and approaches are appropriate for students in applying history learning. Jones [3] in his study showed that teachers support the notes that

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students will get an effective learning and meaningful if they learn followed their individual learning styles.

There are several models of instruments that can be used in identify of learning styles. Identify of learning styles in this study according to the Myers Briggs Type Indicator (MBTI) models. This model has eight aspects of learning style that are Extrovert, Introvert, Sensing, Intuition, Thinking, Feeling, Judging and Perceiving. Identify the characteristics of these learning styles adopted from psychological theories of Carl Gustav Jung. Understanding of psychological students is very important on educational aspect. This is a necessary for evoking educators understanding the mental processes involved in cognitive functions of students. More than that teachers also can comprehend the distinction of each individual intelligence [4]. Throughout the psychological analyze leads educators to identify cognitive structures in depth and much more it can increase affective and psychomotor skills of students.

Based on the description above, this study is considered to have great potential for improving the quality of learning through early identification of the level of learning style models followed the Myers Briggs Type Indicator (MBTI) psychological aspects. This study has the objectives to determine of dominant learning style tendency possessed by students of history education based on demographics and student profiles.

## 2. Literature Review

Fralick [5] argued that learning style is one way and the individual tendency for choosing the way which one they like in study. Nasution [6] mentions learning style is a consistent way that conducted by students in grasping the stimulus or information, remembering, thinking and resolving a problem. Student's selection of learning styles depends on the psychological condition, mental condition, personality and characteristics of students itself. Each individual has a difference to determining of their learning style. Thus, students should be aware of the differences in learning styles so that they can optimize their potential as well.

Theories of learning styles give us information about two things. The first information about learning styles election consistently will be selected on every study condition. For example, students who have auditory learning style, then he will be able to learn quickly through auditory learning materials rather than study used learning materials in other forms. It is also described that their learning style is to be consistent. If he is an auditory it is unlikely he will be a visual person at another time. The second information of learning style is about the effectiveness of cognitive function that it will be better if students using the learning style preference according to their personality type. For example, a student who has an extrovert personality type of learning style will be able to remember and understand the content as well if they were

studying in an open condition, such as listening music and learning at noisy condition [7].

Identifying about learning styles is one important subject of the lesson study. If individuals understand their own learning style, then he can adapt to every learning conditions. In addition, individuals who can understand their own learning style, then they will get easiness in any learning process. The implications will be accepted by the students themselves is that he will get the brightness and will also prevail in the learning process [8].

Learning styles identify can be seen through an analysis based on various models of learning styles. There are experts at education classified some identify models of learning styles. Some types of learning style are type Kolb learning style models, perceptual learning styles and Myers Briggs Type Indicators learning style. Analysis of personality types of learning styles models in this study used the Myers Briggs Types Indicator (MBTI). This learning style model identification election was chosen because Myers Briggs Types Indicator (MBTI) learning styles models is appropriate to identify learning style based on their psychological as intern factors to determine learning style tendency were chosen itself.

Myers Briggs Types Indicator (MBTI) learning styles adapted the psychological theories of Carl Jung. Psychological theory has contributed to the educational development as much. One of it is for learning styles analyze [7]. Myers Briggs Types Indicator (MBTI) learning styles is divided into eight type personality traits. The eighth aspect of learning style personality has a pair in each other, so there are four learning style dimensional dichotomy antipodes one each other. Personality types of learning styles are Extrovert (E) opposite to the Introvert (I), Sensing (S) opposite to Intuition (N), Thinking (T) opposite to the Feeling (F), Judging (J) opposite to the Perceiving (P).

Personality types of Myers Briggs Types Indicator (MBTI) learning styles is also often used for work necessary. MBTI instrument has been used for more than 2 billion copies to evaluate individual personalities [9]. Many companies were using these personality types to analyze workers psychological before these company recruiting new workers. In the learning aspect, MBTI models used to analyze the psychological condition of students in determining trends in the way of learning desired by every individual. The election tendency will help students learn how to identify strengths and weaknesses in themselves.

Each personality type of Myers Briggs Types Indicator (MBTI) models has a same position with the other personality traits. Myers Briggs Types Indicator (MBTI) aims to identify personality type surely which one is more dominant compared to other personality traits. In another sense, every personality traits have the same position, just only the tendency of each individual that is different. Myers Briggs Types Indicator (MBTI) Personality traits do not provide information about the capabilities, the nature of the individual and individual character. However, through the analysis of these personality traits, then students will find

various tendencies in order to optimize the abilities they already have [10].

Each individual has a different characteristic and psychological types with the others. This is also evidenced by the different learning styles in the education perspective. Studied by Sywelem et al., [11] indicates that there is a significant difference between students learning styles based on cultural elements. Ru et al., [12] were using the MBTI personality analysis showed that sensing as the dominant personality types of learning style was used by students. It has a significant influence on academic achievement.

Studied by Kamarulzaman, [13] indicate that each individual personality gives effect upon learning the style. This study used a five-factor of personality types. These are extraversion, neuroticism, openness, agreeableness and carefully. The result of these study mentioned that the five factors as mentioned in above had an influence on learning styles. For example, someone who has an extraversion personality types so they have a learning style tends to be active and have skills in communicating with the social environment. Moreover, someone who has an extraversion personality types also more creative to find strategies in learning based on their learning style.

Another study which used the MBTI analysis is Mi Ran and Su Jeong [14]. This study also conducted in order to determine the personality types of Myers Briggs Types Indicator (MBTI) learning style. This study showed that the dominant type of students is in Extrovert, Sensing, Feeling and Judging (ESFJ) dimensions. A study conducted by Hogan [15] showed that the dominant personality dimensions are owned by students is in the Extrovert, Sensing, Thinking and Judging (ESTJ) dimensions. This study acquired almost the same as the Mi Ran and Su Jeong [14] on student's dominance inventory.

### 3. Methodology

This study is surveys research. The sample was selected by simple random sampling techniques. The sample used in this study is students who take the history undergraduate degree (S1) program at two universities of education in Indonesia. The samples are located in the university district of Jember, East Java and Bandung, West Java, Indonesia. The sample is students from the third year (2012) batch and second year (2013) batch. The samples total were 600 students. 300 students were taken from the education university located in Jember. Then 300 students also were taken from the education university located in Bandung.

This study used a questionnaire instrument and document analysis for collecting data. The instrument is a measuring instrument to get the data and information resulting from the study that we do. The questionnaire used in this study is learning style questionnaire developed by Dr. R. Craig Hogan and Dr. David W Champagne. MBTI questionnaire is a questionnaire that has been widely used to identify personality and characteristics [12]. The questionnaire used in this study has a two parts. The first as part "A" represents the demographic of students. This section is used for getting information and data of gender and also batch students. While in the second part of part "B" is learning style identification. A number of items are 20 items using a set of 40 antipodes pairs. Item 'a' and 'b' is antipodes pairs in every number of questions. The questionnaire used Lickert scale on five points. Lickert scale is an accurate instrument for collecting data because it is using a simply words and leads respondent to be understood to the questions [16]. One point means exactly it is not me, two point means it is not me, three point means it's probably me, four point means it's me and five point means exactly It is me.

Table 1 Personality Types Instrument

| Introvert (I) | Ekstrovert (E) | Intuition (N)   | Sensing (S) |
|---------------|----------------|-----------------|-------------|
| 1b            | 1a             | 2a              | 2b          |
| 5a            | 5b             | 6a              | 6b          |
| 9a            | 9b             | 10a             | 10b         |
| 12a           | 12b            | 15a             | 15b         |
| 14b           | 14a            | 18b             | 18a         |
| SUM (I)       | SUM (E)        | SUM (N)         | SUM (S)     |
| Thinking (T)  | Feeling (F)    | (Perceiving (P) | Judging (J) |
| 3a            | 3b             | 4a              | 4b          |
| 7a            | 7b             | 8a              | 8b          |
| 11b           | 11a            | 13b             | 13a         |
| 16a           | 16b            | 17b             | 17a         |
| 20b           | 20a            | 19a             | 19b         |
| SUM (T)       | SUM (F)        | SUM (P)         | SUM (J)     |

Every track on the pair dimensions (ex: extrovert and introvert) showed the relationship strength and balance between the two conflicting dimensions. Here will be described on the guide marks of dimension lines.

a. 12-13 means there is a balance between the two traits

- b. 14-15 means there is little correlation in imbalance, this means there is one personality trait that is much more powerful than others
- c. 16-19 means there is a strong imbalance between the two traits

- d. 20-25 means there is a huge imbalance between the two traits

In this section will be elaborated about personality characteristics and students learning styles in the history education at university level using Myers Briggs Type Indicator (MBTI) identification. Dimensions of this study were totalled four dimensions based on eight personality type. To get more information, see Table 2 on the below.

#### 4. Findings

Table 2 Myers Briggs Type Indicator (MBTI) Learning Styles

| Personality types | N   | Score | Standard Deviation | Interpretation |
|-------------------|-----|-------|--------------------|----------------|
| Extrovert         | 600 | 13.29 | 4.12               | Balance        |
| Introvert         | 600 | 11.70 | 4.11               |                |
| Thinking          | 600 | 12.67 | 2.98               | Balance        |
| Feeling           | 600 | 12.43 | 2.99               |                |
| Intuition         | 600 | 13.23 | 3.50               | Balance        |
| Sensing           | 600 | 11.79 | 3.51               |                |
| Judging           | 600 | 14.09 | 3.97               | Less balance   |
| Perceiving        | 600 | 10.93 | 3.93               |                |

According to the findings in the table above, it showed that the whole personality traits are at a balanced and a fewer balance categories. Its point out that students who have an introvert and extrovert personality traits had also balance at each other. This results same as students personality types of thinking, feeling and intuition, sensing. This three pairs of traits have the same power. While on

Judging and perceiving personality traits have little power balance. This means that one of the traits were higher compared with other personality characteristics. The results showed that Judging personality type (Mean = 14.09 and SD = 3.97) had a higher number compared to perceiving personality characteristics (Mean = 10.93 and SD = 3.93).

Table 3 Personality characteristic of Myers Briggs Type Indicator (MBTI) Learning Styles based on gender

| Personality Types | Gender | N   | Score | Standard Deviation |
|-------------------|--------|-----|-------|--------------------|
| <i>Extrovert</i>  | Male   | 279 | 13.23 | 3.98               |
|                   | Female | 321 | 13.35 | 4.23               |
| <i>Introvert</i>  | Male   | 279 | 11.78 | 3.98               |
|                   | Female | 321 | 11.63 | 4.21               |
| <i>Thinking</i>   | Male   | 279 | 12.71 | 3.02               |
|                   | Female | 321 | 12.63 | 2.95               |
| <i>Feeling</i>    | Male   | 279 | 12.38 | 3.04               |
|                   | Female | 321 | 12.49 | 2.94               |
| <i>Intuition</i>  | Male   | 279 | 13.10 | 3.65               |
|                   | Female | 321 | 13.35 | 3.36               |
| <i>Sensing</i>    | Male   | 279 | 11.90 | 3.63               |
|                   | Female | 321 | 11.70 | 3.41               |
| <i>Judging</i>    | Male   | 279 | 13.85 | 3.61               |
|                   | Female | 321 | 14.31 | 4.24               |
| <i>Perceiving</i> | Male   | 279 | 11.21 | 3.57               |
|                   | Female | 321 | 10.68 | 4.21               |

Students prefer to have Extrovert personality traits learning styles between Extrovert and Introvert dimension.

While in the dimensions of thinking and feeling, students tend to have thinking personality types. Based on the mean,

sensing personality types lower than intuition personality types of learning styles. But a difference of three dimensions above does not have a big huge in others. Judging personality types had a higher mean number compared with perceiving personality traits but in this case, there is a less imbalance. It means that judging students total is rather than perceiving personality types .In addition, the overall judging personality traits dominant position compared with other personality traits eighth.

In the next section of this findings will describe that student's personality types of learning styles in history education students based on gender. For further information about personality characteristics, data based on gender see the table 3.

According to table 3 above, it can be concluded that the number of respondents is 279 male students and the number of female students is 321. Female students prefer to have extrovert personality types compared with male

students. While male students prefer to have introvert personality types compared extrovert personality types. The male has more dominant proportionate compared with a female on thinking personality types. This result is different with feeling personality types finding. The male is more tend to have this personality types compared with female. On intuition's personality characteristic female tends more dominant proportionate than a male. While male students tend to have sensing personality types compared with female students. Female has a dominant proportionate compared with male on judging personality types. While on perceiving personality type is male more dominant.

In the next section of this findings will describe student's personality types of learning styles in history education students based on the batch. For further information about personality characteristics, data based on batch see the table below.

Table 4 Personality characteristic of Myers Briggs Type Indicator (MBTI) Learning Styles based on batch

| Personality Types | Batch       | N   | Score | Standard Deviation |
|-------------------|-------------|-----|-------|--------------------|
| Extrovert         | Second year | 300 | 13.24 | 4.03               |
|                   | third year  | 300 | 13.35 | 4.21               |
| Introvert         | Second year | 300 | 11.76 | 4.01               |
|                   | third year  | 300 | 11.64 | 4.20               |
| Thinking          | Second year | 300 | 12.90 | 3.33               |
|                   | third year  | 300 | 12.70 | 2.96               |
| Feeling           | Second year | 300 | 12.14 | 3.34               |
|                   | third year  | 300 | 12.48 | 2.97               |
| Intuition         | Second year | 300 | 13.26 | 3.42               |
|                   | third year  | 300 | 13.21 | 3.59               |
| Sensing           | Second year | 300 | 11.78 | 3.40               |
|                   | third year  | 300 | 11.80 | 3.63               |
| Judging           | Second year | 300 | 14.11 | 3.96               |
|                   | third year  | 300 | 14.08 | 3.98               |
| Perceiving        | Second year | 300 | 10.92 | 3.92               |
|                   | third year  | 300 | 10.93 | 3.95               |

The total of respondents used on each batch is 300 students. The second year students have a dominant proportionate on extrovert personality types compared with third year students .Thus, this result means that students in the second year tend to have an introvert learning style. At dimensional thinking and feeling, the second year students tend to have thinking personality type while students in the third year had a more dominant on feeling personality types of learning style. Students second year in higher education had a dominant intuition personality trait of learning style while third-year students in higher education tend to have sensed. Judging personality type of learning style is had by the third year compared with second year students who have to perceive.

## 5. Discussion

Student learning styles level in history education are analyzed through a descriptive analysis process using a view of the mean score on each dimension learning styles. The results showed that history of education students at higher education has a predominant tendency to use learning style on judging personality types. Extrovert, Intuition, Thinking, and Judging (ENTJ) is a four-dimensional dominant of learning styles based on 16 characteristics of Myers Briggs Type Indicator (MBTI) instrument model. These findings have in common with almost the findings made by Mi Ran and Su Jeong [14],

which found that the dominant learning styles are on Extrovert, Sensing, Feeling and Judging (ESFJ). This different result because of differences on sample respondent

According to the result of this study, the dominant personality traits of learning style is in judging. Students are more likely to have judging learning style. Judging students prefer to use autonomous learning method [17]. Therefore, teachers have to use student-centered learning strategies. Judging students are disciplined individual. Usually, they will make a study plan at the first of the study before their starting. In this case, at least the teachers who have students with judging learning style expected to provide an introduction of content and clear objectives before starting the learning process. This action will help students to provide a guidance as instruction or mechanism of learning. Judging type personality want to know what will be done and what is the purpose of learning so that he can follow a clearly learning mechanism [18].

Judging personality traits have brains that are more organized than other personality characteristics. They are not so interested in the facts that have no direct relationship with the community, social environment and real life. They have excelled in expressing what the advantage of themselves is but they also have good ability in group supportive developing [10]. In the history teaching context, teachers should relate historical events to current issues, political conditions, social conditions and even better if the teacher can correlate history subjects with another discipline as such sociologist, geography, economic, political etc.

The findings showed that female is more likely to have extrovert personality traits of learning styles. While male is more likely to have on thinking, sensing and judging personality traits. This is because male students are more likely to think with logic compared to sentiment. In addition, male students have a higher on excellence level in the field of numerical and science than female students [19]. While the findings on learning styles based on batch showed that students in the second year tend to have introvert, thinking. While the third year students tend to have a sensing and perceiving personality traits of learning styles. This is because they were getting a different learning experience.

According to the findings of this learning style study, the educators should choose a method that suits with students learning style types. Learning style is also used as a reference in selecting and learning strategies according to the characteristics of [20]. Some research and studies have proven that the practice of learning by applying the student learning style given effect on effective learning compared with traditional or conventional learning. Studied by Bostrom [21] found that there is a significant distinction between conventional or traditional learning and learning using personality types of students.

The identification of learning styles is crucial done by a teacher. Understanding of learning styles is a way to understand the real learning and developing existing skills [22]. One kind of strategies learning are supported by

learning style to improving student's competence and their skills have students centered learning. Through this student's centred learning strategies so, then the students will discover their own learning experience as well. More from it, students will find meaningfulness in learning process because he can create knowledge and skills themselves.

## Suggestions

Willingham et al., [7] argued that learning style theory should be directed for preparing a learning instruction purpose. Therefore, teachers should organize learning instruction based on the student's personality types of learning style has been identified. Through the identification of these personality traits, so educators have a reference to set the conditional learning according to characteristics of student learning style. An effective conditional learning will lead to getting optimal learning outcomes. The implication of this study to conduct further study is to investigate the various constructs completely, in terms as adding a demography or adding a various demography context. Utilized others learning styles identification model such as cognitive domain identification more diverse skills can be a new construct in the study continued.

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