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CHAPTER II

THEORETICAL FRAMEWORK

A. Theoretical Framework

1. The Nature of Learning

a. Learning Style

Learning style is to point up to the way of student process and adapts information in different ways and preference. According to Reid (1995), learning style are individual natural, habitual, and preferred ways of absorbing, processing, and retaining new information and skills. Learning styles is from the cognitive aspect. According to Brown (2000), the way someone learns things in general and the way someone tackles the problem seem to depend on a rather shapeless link between personality and cognition; this link is referred as cognitive style. Keefe (1997) also argued about learning styles. He stated that learning styles might be thought of as cognitive, affective, and psychological traits that are relatively stable indicators of how learners perceive, interact with, and respond to learning environment.

Brown viewed learning styles as cognitive style that related to educational context, in the other hand Slavin (2006) saw learning styles from the personality aspect. He argued that learners have different personalities and also different ways in learning. Meanwhile, Oxford in Celce Murcia (2001) defined learning styles as general

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approach such as in global or analytic, auditory or visual, that students use in learning any other subject.

b. The Dimension of Learning Styles

There are many researchers have investigated learning styles, and also there are many kinds of learning styles. They saw learning styles from different aspect, such as sensory preferences, personality types, desired degree of generality and also biological differences. The following section is the explanation of the four dimensions of learning styles that are more likely associated with second language learning (Oxford in Murcia, 2000).

1) Sensory Preferences

Sensory preferences can be divided into four main areas: visual, auditory, kinesthetic (movement-oriented), and tactile (touch-oriented). Visual students like to read and obtain general deal with visual stimulation. For them, lectures, conversations, and oral instruction without visual backup can be confusing.

In clear, auditory students are comfortable without any visual input and therefore enjoy and profit unembellished lectures, conversation, and oral instructions. They enjoy classroom interaction in role plays and similar activities. However, they have difficulty in writing. Kinesthetic and tactile students are excited with movement. They enjoy working with tangible objects,

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collages, and flashcards. They also prefer to have frequent breaks and move around. They cannot sit for a long time.

2) Personality Traits

Personality traits called psychological traits. The personality traits research of Jung (1923) was revived by Myers and Briggs (1962), and the result commonly called as Myers-Briggs Type Indicator (MBTI). Personality trait is reflect people's characteristic patterns thoughts feelings and behaviors. It is important aspect for second language education that consisted of four sections bellow:

a) Extroverted versus Introverted

Extroverted gain their greatest energy from external word. They want interaction with people and have many friendships, some deep and some not. In the other hand, introverted catch their energy from the internal world, seeking solitude and tending to have just a few friendships, which are often very deep.

b) Intuitive - Random versus Sensing – Sequential

Intuitive – Random is described with more willingly rely on hunches, inspiration and imagination for perceiving reality. Intuitive – Random students think in abstract, futuristic, large – scale, and non-sequential ways. They prefer like to create theories and new possibilities, often have sudden insights, and prefer to guide their own learning. Sensing – Sequential

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learners are data – oriented and empirically inclined to stick to observable, measurable facts, and grounded in the here and now. They want guidance and specific instruction from the teacher, and look for consistency.

c) Thinking versus Feeling

Thinking versus feeling describes ways of arriving at conclusions and of storing reality in memory. Thinking learners are oriented toward the stark truth, even if it hurts some people's feeling. They are also generally cognitive, impartial, objective and logical. They want to be viewed as competent and do not tend offer praise easily – even though they might secretly desire to be praised themselves. Teacher can help thinking learners show greater overt compassion to their feeling classmates and can suggest that feeling learners might tone down their emotional expression while working with thinking learners.

d) Closure – Oriented / Judging versus Open / Perceiving

Closure – Oriented students want to reach judgments or completion quickly and want clarity as soon as possible. These students are serious, hard work learners who like to be given written information and enjoy specific tasks with deadlines. Ehrman and Oxford (1989) stated that the learners that closure

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– Oriented sometimes desire for closure slow down the development of fluency.

Open learners are spontaneous, flexible and more comfortable with open – ended context. They want to stay available for continuously new perceptions and are therefore sometimes called as perceiving. They also take learning less seriously, treating it like a game to be enjoyed than a set of tasks to be completed. As a result, they dislike deadlines; they want to have a good time and seem to soak up the second language information by osmosis rather than hard effort.

3) Desired Degree of Generality

There are two types of personality dealing with desired degree of generality. The first is global or holistic students. They tend to socially interactive, communicative events in which they can emphasize the main idea and avoid analysis of grammatical minor details. They are comfortable even when not having all the information and they feel free to guess from the context.

The second is analytic students. They like to concentrate on the grammatical details and often avoid more free-flowing communicative activities. Because of their concern for precision, analytic learners typically do not take the risk necessary for guessing from the context unless they are fairly sure of the accuracy of their guesses. The global students and analytic student

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have much to learn each other. A balance between generality and specificity is very useful for second language learning.

4) Biological Differences

Learning second language related to biological factors, such as biorhythms, sustenance, and location. Biorhythms reveal the times of day when students feel good and perform their best. Some learners are morning people, while others do not start learning until the afternoon, and still other are creature of the evening, happily “pulling an all-nighter” when necessary. Substance refers to the need for food and drink while learning such as a candy bar, a cup of coffee, or soda, but others are distracted from study by food and drink. Location involves the nature of the environment, such as temperature, lighting, sound and even the nature of the chairs. Second language learners differ widely regard to these environmental factors.

c. Learning Styles Preferences

There are different learning styles. Three of the most popular ones are visual, auditory, and kinesthetic in which students take in information. In addition, multiple intelligence that has been filtrated by the education community into a focus on three types of psychological learning styles, they are visual, auditory, and kinesthetic (Gardner’s, 1993).

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Cohen, Oxford and Chi's (2001) stated that Learning Style Survey was adapted for purpose of the study the focus on the sensory style preferences (visual, auditory, and kinesthetic) of learners, the other section in the original survey were excluded. Many learners have different ways in learning information. Learners use all of their senses to take information. They seem to have preferences in how they learn best. Learning style that they prefer will integrate the process of learning, thus they will learn more easily and fast and will successful.

Table II.1
VAK Learning styles

No.	Learning Styles	Students learn	Media
1.	Visual	Seeing and Reading	Diagram, Graphics, Model, Picture, Video
2.	Audio	Listening and Talking	Radio, Music, Discussion
3.	Kinesthetic	Touching and Doing	Games

1) Visual Learning Styles

Visual learners think in pictures and learn best in visual images. David P. Ausubel (1978) stated that verbal learners usually focused on learning through verbal or textual material by using map, timeline, or metaphor in the beginning of the lesson, but they are not overviews or summaries. The learners integrate new concepts and propositions with relevant concept and propositions already known, and they try to integrate new knowledge with relevant existing knowledge. They depend on the teacher's or facilitator's non-verbal cues such as body language to help with

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understanding. Sometimes, visual learners favor sitting in the front of the classroom. They also take descriptive notes over the material being presented (Pride, N. D., 2009).

De Porter (in Menikkurnia, 2016) stated that visual student access visual images nor remembered color, spatial relation, mental portraits and images stand out in the learning. According to Leonard Enid (2005), students were visual possibly characterized as follows:

- a) Students learn by mind maps, flow charts, and diagram using bright colors.
- b) Students practice building their visual memory.
- c) Students usually rewrite the note using different colors.
- d) Students have strong visualization skill and can remember object, shapes, and picture.
- e) Students learn through reading.
- f) Students learn by watching film, video and demonstrations.
- g) Students can see picture in their mind.

2) Auditory Learning Style

Auditory learners learn best by listening, and discover information through listening and interpreting information by the means of pitch, emphasis, and speed. These students gain knowledge from reading out load in the classroom and may not

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have a full understanding of information that is written (Pride, N. D., 2009).

Auditory learning styles through verbal interaction and listening, such as teachers' format in discussion or recording. These students will be more likely to record teacher so that they can replay them at the time for proses of study. Auditory learners that learn best by listening and can use top-down and bottom-up for pre-listening activities in the classroom. Before listening, the learners can thinking or guess some of vocabulary that related to the topic that can be convey by the teacher. In this process, the learners base their information based on their knowledge (top-down) as they generate vocabulary and sentences (bottom-up).

The audio learners are used interactive processing in learning activity that means the learners are activating their previous knowledge (Peterson, 2001). According to Jean Piaget (2008), cognitive structure, which are basic interconnected psychological system that enable people to process information by connecting it with prior knowledge and experience, finding patterns and relationship, identifying rules, and generating abstract principles relevant in different application. He believed in operative knowledge, which implies that change and transformation produce knowledge. Piaget identified four stages in cognitive development as follows:

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- a) *Sensory-motor stage*: learn by using the five senses, object permanence, and actions that are goal-directed. Baby and children do not think the way adults. Young children experience egocentrism because they fail to coordinate their point of view with other person's.
- b) *Pre-operational stage*: children are able to do one-step logic problems, develop language, continue to be egocentric, and complete operations. Children in this stage, however struggle with centering and conservation.
- c) *Concrete stage*: occur during ages seven through eleven, children develop their ability to maintain the ability of grouping, organizing, and solve something. In this stage, the children thought only focus on the real event that they see.
- d) *Formal stage*: from age twelve to adulthood, children enter the formal operations stage, which allows them to think logically and show lingering egocentrism.

De Porter (in Menikkurnia, 2016) stated that auditory students access all kinds of sounds and words that created nor remembered music, tone, rhythm, rhyme, internal dialogue and a prominent voice in this learning style. According to Leonard Enid (2005), students were visual possibly characterized as follows:

- a) Students learn through listening (can hear differences in tones and rhythm).

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- b) Students enjoy reading out loud.
- c) Students can remember the instruction from the teacher by hearing.
- d) Students like to repeat some information out loud in their own word.
- e) Students like to record and study over again the teacher's instructions through listening.
- f) Students loved to discussion and study in group.

3) Kinesthetic Learning Style

Kinesthetic learning style is learning style require whole body movement and real life experiences to absorb and to retain materials to be learned. Kinesthetic learners learning primarily by experience (Reid, 1987); they usually use the body to experience, do, and become involved with the specific learning (Dunn, 1988). Students are kinesthetic learn best with and active "hands-on" tasks (Reis, 1987). These learners favor interaction with the physical world. Most of the time kinesthetic learners have a difficult time staying on target and can become unfocused effortlessly (Pride, N. D., 2009).

The students learn most easily when they are very involved in the learning process. Kinesthetic students tend to be touch or feelers. They process information through the sense of touch, such as feeling shapes and textures while they may take a lot of note or

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doodle while attending teachers or even while simply thinking something through, often they will not refer to the notes again. Kinesthetic students are quite close, and usually have tendency to handle something or fidget with something.

De Porter (in Menikkurnia, 2016) stated that kinesthetic students access all types of motion and emotion nor remembered movement, coordination, rhythm, emotional response and physical comfort prominently in learning. According to Leonard Enid (2005), students were visual possibly characterized as follows:

- a) Students learning by doing (using games) because kinesthetic learners tend to bored very easily, pointing writing while reading, responding physical.
- b) Students have good coordination and learn by doing.
- c) Students generally have an active approach to learning.
- d) Students spend their time for exercises or other physical activities.
- e) Students memorize by walking and seeing.
- f) Students writing notes to remember information

Different learning style that prefer by the students make them unique. Acquiring and processing of information by learners occurs in various ways. Their learning styles may be influenced by their previous learning experiences, genetic make-up, and culture.

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Some learners are more comfortable with data and facts, while others prefer mathematical models and theories.

2. Benefit of Understanding the Learning Styles

It is importance to remember that students are unique learners. They unique in the way they dress, behave, think and learn. The process of learning is not the same; some are faster than others or vice versa. There are many advantages to understanding the way in which the learners are able to process information more efficiency. According to Ldpride (2008) some these benefits include:

a. Academic Advantages

- a. Maximizing the learning process
- b. Succeed on all educational levels
- c. Understand how to best study and score better on exams and test
- d. Overcome limitation and stress level
- e. Expand your existing learning strategies

b. Personal Advantages

- a. Improve the self-confidence and self-esteem
- b. Learn how to best use the brain
- c. Gain insight into the own strengths as well as weaknesses
- d. Learn how to enjoy learning more
- e. Develop a motivation for learning
- f. How maximizing your natural abilities and skills

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c. Professional Advantages

- a. Stay up to date in professional topics
- b. Gain an edge over the competition
- c. Manage teams in a more effective manner
- d. Learn how to deliver more effective presentations
- e. Improve the sales skills
- f. Increasing the earning power

Keep in mind that there is really not right or even no wrong way to learn. Everyone is unique and earn learning styles offer advantages as we;; disadvantages. Understanding your own learning styles can help you to learn as well as work in a more efficient manner.

B. Relevant Research

1. AlmasaMulalicet *al* conducted in his research entitled “*Learning - Style Preference of ESL Students*”. This research present the result about determine the students learning style of the students, and the differences in their learning style according to gender and ethnicity. In this research the ESL students was assessed using the PLSPQ research instrument, which Peacock (2001) reported to be of high reliability. There are (N160) students from UNITEN were selected as respondents using the stratified random sampling techniques. 74 female students (46.3%) and 86 male students (53.8%) participated in the research. The racial composition of the sample was 56 Malays (35.0%), 52 Chinese (32.5%), and 52 Indian (32.5%). Result revealed that the dominant learning styles of ESL students

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yielded the following results. In general, students preferred the kinesthetic learning style and expressed minor preference for Visual, Auditory, and Group Learning.

2. Joy M. Reid conducted in his research entitled “*The Learning Style Preferences of ESL Students*” by Colorado State University for both native speakers (NSS) and nonnative speakers (NNSS) of English. This research presents the results of a questionnaire that asked 1,388 students to identify their perceptual learning style preferences. Statistical analyses of the questionnaires indicated that NNS learning style preferences often differ significantly from those of NSS; that ESL students from different language backgrounds sometimes differ from one another in their learning style preferences; that other variables such as sex, length of time in the United States, length of time studying English in the U. S., field of study, level of education, TOEFL score, and age are related to differences in learning styles; and that modifications and extensions of ESL student learning styles may occur with changes in academic environment and experience.
3. AbbassPourhosseinGilakjaniconducted in his research entitled “*Visual, Auditory, Kinesthetic Learning Styles and Their Impacts on English Language Teaching*” by Islamic Azad University, Lahijan Iran. This research present the result of the students learning styles preferences. Three of the most popular ones are visual, auditory, and kineasthetic in which students take in information. This study as an analysis of learning styles for Iranian EFL university students. Over 100 students complete a

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questionnaire to determine of their learning styles are auditory, visual, or kineasthetic. The finding showed that Iranian EFL university students preferred learning style was visual. From that we can determine how learning styles affect the teaching process.

4. MunirShuib conducted in his research entitled “*Learning Style Preferences Among Male and Female ESL Students in Universiti – Sains Malaysia*”. This research presented the differences in learning style preferences between male and female students who undertook ESL courses in the UniversitiSains Malaysia. The result indicated that, there is a strong representation of visual learners from both male and female respondents. On the other hand, the respondents, irrespective of the gender difference, are well-balanced in the dimensions of sensing/intuitive, active/reflective, and sequential/global. In addressing the gender difference, it was found in this study that there is no significant difference between male and female ESL students in their preferred learning style on each of the FSLSM dimension. Thus, this study revealed that, gender does not help differentiate students’ learning preferences.
5. AkhsanulIn’am conducted in his research entitled “*Learning Geometry through Discovery Learning Using a Scientific Approach*”. This research presented the implementation of learning geometry through a scientific learning consisting of three aspects: 1) teacher’s activities, 2) student’s activities and, 3) the achievement result. This research used the descriptive-quantitative. The result showed that the teachers were able to

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implement the preplanned learning activities and their learning activities may be able to improve the students' learning activities. The mean value of students' learning result in groups was found to be 96; meanwhile their individual learning result was found to be 95. This condition showed that the students' learning were under a very good category.

6. Ibrahim Bilgin et al conducted in his research entitled "*The effect of Problem-Based Learning Instruction on University Student's Performance of Conceptual and Quantitative Problems in Gas Concepts*". The subjects of this study were 78 second year undergraduates from two different classes. The subject will give the pretest-posttest and the experimental group (40) took PBL instruction, and control group (38) took traditional instruction. Pretest-Posttest measured by Conceptual Problem Gases Test (CPGT) and Quantitative Problems Gases Test (QPGT). The result showed the experimental group had better performance in conceptual problems while there was no difference in students' performances of quantitative problems.
7. Ilhan Ilter conducted in his research entitled "*A Study on the efficacy of project-based learning approach on Social Studies Education: Conceptual achievement and academic motivation*". This research was quasi-experimental research design that there are experimental (took Project based learning) and control group of students (took Direct instruction method). The result showed that the PBL improved student's understanding regarding social studies concepts and helped them achieve

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the behaviors which were aimed academically. The experimental group's intended behaviors in academic motivation at the beginning of the experimental treatment turned into performed behaviors at the end.

Operational Concept

In Carrying this research, it is necessary to clarify the variable used in analyzing the data. There is one variable in this research. Variable (Y) is learning styles preferences.

The indicator of variable Y is present bellow:

1. Visual Learning styles

To indicates the visual students, the researcher is used the question number 1, 4, 9, 10, 13, 16, 19, 24, 25, 28. According to Leonard Enid (2005), students were visual possibly characterized as follows:

- a) Students learn by mind maps, flow charts, and diagram using bright colors.
- b) Students practice building their visual memory.
- c) Students usually rewrite the note using different colors.
- d) Students have strong visualization skill and can remember object, shapes, and picture.
- e) Students learn through reading.
- f) Students learn by watching film, video and demonstrations.
- g) Students can see picture in their mind.

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2. Audio Learning styles

To indicates the audio students, the researcher is used the question number 2, 5, 8, 11, 14, 18, 20, 23, 26, 29. According to Leonard Enid (2005), students were visual possibly characterized as follows:

- a) Students learn through listening (can hear differences in tones and rhythm).
- b) Students enjoy reading out loud.
- c) Students can remember the instruction from the teacher by hearing.
- d) Students like to repeat some information out loud in their own word.
- e) Students like to record and study over again the teacher's instructions through listening.
- f) Students loved to discussion and study in group.

3. Kinesthetic Learning styles

To indicates the kinesthetic students, the researcher is used the question number 3, 6, 7, 12, 15, 17, 21, 22, 27, 30. According to Leonard Enid (2005), students were visual possibly characterized as follows:

- a) Students learning by doing because kinesthetic learners tend to bored very easily, pointing writing while reading, responding physical.
- b) Students have good coordination and learn by doing.
- c) Students generally have an active approach to learning.
- d) Students spend their time for exercises or other physical activities.
- e) Students memorize by walking and seeing.
- f) Students writing notes to remember information.