Embracing Students' Diverse Learning Styles in English Classroom Activities

Dewi Pujiantini
Universitas Negeri Yogyakarta
dewipujiantini.2020@student.uny.ac.id

Abstract

Students are different in many respects due to their characteristics. The characteristics show that Individual Differences (IDs) are common among students. In the second language learning context, one of the key IDs is learning styles. Students' learning styles are identified from their preferred ways for acquiring information, knowledge, and skills. Students' learning styles should be recognized and taken into account by English teachers in planning the instructional design and conducting classroom activities to create meaningful and engaging learning activities to achieve effective learning outcomes. However, to my reflection and observation in my own area, most EFL teachers pay very little attention, if any at all, to matters related to learning styles. Many teachers indeed employ a 'one size fits all' teaching method. However, a large number of students and limited time allocation create an obstacle for teachers in dealing with students' different learning styles. There should be a teaching model to accommodate students' different learning styles in the instructional design and learning process. Therefore, this paper is aimed at proposing a model of teaching that presents some steps to be taken by teachers as an effort to accommodate students' different learning styles that focus on achieving successful English language learning and keeping the value of students' different learning styles.

Keywords*: language learning, students' learning styles, learning process, learning activities, teaching model*

Introduction

Every classroom consists of students who have different characteristics. These characteristics are of some significant variables that influence the success of students' language acquisition and teachers' efforts to support the acquisition process (Brown, 2007). According to Drachsler (2011), considering learners' characteristics in the learning context is one of the teachers' efforts to design and develop effective and efficient materials and classroom activities. He suggests that learners' characteristics include personal, academic, social/emotional, and cognitive. Personal characteristics cover age, gender, maturation, language, social-economics, and cultural background. Academic characteristics are related

to education and learning contexts, such as learning objectives (of an individual or a group), prior knowledge, educational type, and educational level. Meanwhile, social/emotional characteristics deal with the presence of a group or an individual in a group, for example, a group structure, an individual's position within a certain group, sociability, self-image (also feelings of self-efficacy), and mood. Lastly, cognitive characteristics include attention span, memory, mental procedures, and intellectual skills which determine the activities of humans' brain in perceiving, thinking, retaining, organizing, and representing information as well as solving problems (Drachsler, 2011). These learners' characteristics show that Individual Differences (IDs) are common among students.

Individual Differences (IDs) that deal with cognitive variables become the key in second language learning. The key variables include learning styles and learning strategies (Dörnyei, 2005). 'Learning styles' is a term used to describe that Individual Differences (IDs) take place in the learning process (Jaleel, Sajna, & Thomas, 2019). It indicates that students learn in different ways because they have their preferred ways for learning, They tend to use certain patterns of how to perceive, process, store as well as behave towards knowledge (Allen et al, 2011). In using learning styles, an individual might implement mixed ones, yet he/she usually utilizes one that is the most dominant (Allen et al, 2011). When students learn with their learning styles, it is expected they can maximize their learning process because they can apply the learning approaches best suited to achieve successful outcomes.

The fact that students have different styles in learning emphasizes the importance of comprehending the learning styles concept. Teachers should take it as one of the considerations in creating an effective learning process. It is significant for teachers to identify different learning styles of students. Accordingly, teachers are encouraged to consider students' learning styles in planning the instructional design. By doing so, according to (Edith & Rizo, 2015), teachers put their effort to relate their students' learning styles to the activities conducted in the classroom. On the one hand, when it happens, students will experience meaningful learning that might motivate them intrinsically (Edith & Rizo, 2015). On the other hand, if students find a mismatch between their learning styles and the activities given by teachers, they might find obstacles to learn a language easily, which will result in their low achievement (Edith & Rizo, 2015).

In regards to students' low achievement, recognizing students' learning styles helps teachers to do self-reflection. The low achievement could result from classroom activities which do not facilitate students' diverse learning styles. The diverse learning styles are not considered when teachers plan and deliver their lessons. Having done a self-reflection on classroom activities teachers have planned, teachers are not supposed to judge students' learning difficulties as students' weaknesses (Rosenfeld & Rosenfeld, 2003, as cited in Smith & Dalton, 2005) or relate students' learning failure to their lack of learning preparation (Yassin & Almasri, 2015).

Nonetheless, there is a worth-considering point about learning styles. It is still debatable whether in an individual, learning styles are fixed, biologically determined, and inflexible, or something dynamic, adaptable, and flexible (Moser & Zumbach, 2018). Furthermore, "a predisposition may be deep-seated, but it does imply some capacity for flexibility, and scope for adaptation of particular styles to meet the demands of particular circumstances"

(Donvyei & Skehan, 2003, p.602). It seems that one has a preference in the way of learning that is predominant than others, yet it might change in response to different contexts.

However, based on my own experience and observation during my teaching service, very few teachers, if any at all, pay attention to the presence of learning styles. Most teachers did not equip themselves with the knowledge of learning styles. My fellow teachers and I are already aware of individuals' learning styles, although still limited to types/models of learning styles. Nevertheless, we never took account of students' learning styles into our instructional design. We tried to conduct various learning activities. We sometimes used several kinds of media to support the learning process, for example, PowerPoint slides, pictures, songs, short movies, paper-based games, interactive digital games, etc. However, we did such activities without a thorough understanding of their relation to the learning styles concepts.

As a matter of fact, a great number of English teachers in Indonesia, including me frequently used the same teaching method in different classrooms. According to Smith & Dalton (2005), it is called a 'one size fits all' teaching method. What I was meaning to say is that teachers continuously taught all of their students in the same way even though they had different learning styles. They assumed that all students had the same learning style.

Teachers' lack of knowledge of learning styles results in their poor understanding of the significance of addressing students' diverse learning styles and integrating them into effective materials and classroom activities. Nevertheless, understanding and dealing with each student's learning style is not easy. Most schools in Indonesia have a large number of students in each classroom and allocate a limited time for the English subject, as ruled in the government policy. This has posed a big challenge for teachers.

Therefore, this paper is written to answer the question "how should a teacher deal with students' diverse learning styles in planning the instructional design and conducting classroom activities? This paper will discuss Individual Differences, definitions of learning styles, types of learning styles, models, and assessments of learning styles, previous studies, and the proposed model of teaching in the following sections and subsections.

Individual Differences

No individuals in the world are alike, even twins. They differ in many respects concerning physical and psychological factors or cognitive, affective, and social factors. The differences take place across all individuals and distinguish one from another, which constitutes the essence of IDs. IDs mostly deal with the psychological area compared to others, such as physical appearance (height, hair type, etc). Dornyei (2005, p.4) says "ID constructs refer to dimensions of enduring personal characteristics that are assumed to apply to everybody and on which people differ by degree." Furthermore, he adds that variables of IDs play a significant role in applied linguistic and thus contribute to the most relevant procedures that underlie the second language learning process. IDs should be taken into account in making the learning environment educationally appropriate, interesting, and relevant (Sullivan, 2009, as cited in Williamson, 2018).

As a matter of fact, in the second language acquisition field, theorists and researchers propose taxonomies of IDs which present different compositions of variables. However,

some taxonomies have a slight limit in the categories/divisions, or even name similar concepts in numerous ways (Pawlak, 2012). As cited in Dornyei (2005), Cooper (2002) covers four main branches of IDs, abilities, personality, mood, and motivation. Meanwhile, Brown (2007) in his book Principles of Language Learning and Teaching distinguishes styles-strategies and personality factors-sociocultural aspects. In turns, he devotes a chapter to human learning that discusses age, aptitude, and intelligence. De Raad (2000, p.41) in Encyclopedia of Psychology, cited in Dornyei (2005) offers broad specifications, with possible characteristics including "attitudes, values, ideologies, interests, emotions, capacities, skills, socioeconomic status, gender, height, and so forth". Unlike the comprehensive taxonomy, Cook (2008) as cited in Pawlak (2012) highlights only four variables, i.e. motivation, attitudes, aptitude, and age, but there is still yet a brief talk on the contribution of cognitive styles, personality factors, intelligence, gender, first language level, and empathy.

The taxonomies above have covered many kinds of variables. However, none of them discusses categorizations and variables that are related to the learning process. Meanwhile, Cohen and Dörnyei (2002) as cited in Pawlak (2012) categorize IDs into two, learners' characteristics that are beyond teachers' control, i.e. age, gender, and aptitude, and those which are likely to be adaptive to increase the effectiveness of instruction, such as motivation, learning styles, and learning strategies. It is also reinforced by Dornyei (2005) that learning styles and language learning strategies are the key IDs.

In my opinion, the taxonomy of IDs suggested by Cohen and Dörnyei (2002) as cited in Pawlak (2012) seems to be the most appropriate classification in the context of this paper, in which they group IDs variables into ones that can change or not related to teachers' contribution during the learning process. The classification emphasizes that learning styles constitute a variable that can be influenced by the way teachers manage classroom activities to achieve an effective result of English language learning. The taxonomy of IDs by Cohen and Dörnyei (2002) is very relevant in tackling an issue, as mentioned previously, about whether learning styles are stable or dynamic. So, what is meant by the term "learning style"?

Definitions of Learning Styles

We are exposed to extensive literature that discusses learning styles. Along with it, various definitions of learning styles emerge. They are generated by researchers of which some are quite similar, while the others compare with another term. Awla (2014) states other ways to address learning styles are cognitive style, sensory preference, and personality types, which are, on some occasions used interchangeably.

On other occasions, learning styles take different parts during the learning process. Cognitive styles deal with one's characteristics in perceiving, remembering, and problem-solving. Meanwhile, learning styles can be used to find out the role of cognitive styles in a learning context. Hence, cognitive styles are more general than learning styles (Cassidy & Cassidy, 2010). According to Brown (2007), cognitive styles are an obscure relation between personality and cognition when an individual learns things in general and the way he approaches a problem. Once cognitive styles enter the educational context, where affective and physiological factors are combined, it is referred to as learning styles.

Other researchers also make a distinction between cognitive style and learning style. According to Riding & Rayner (2013), cognitive style is broad, worth-discussing in a separate chapter from learning styles. A cognitive style is an innate and prompt way of an individual in responding to information and situations. It is supposed to be present at birth which is fixed as early age as possible and considered strongly persistent. In the learning context, cognitive style deals with learning performance and learning situations in which, in an individual, it is considerably fixed and influences the achievement respectively. Meanwhile, learning styles refer to an individual set of differences covering not only a personal preference for instruction or certain learning activities but also an IDs issue.

Further to some researchers who view cognitive style and learning styles as similar and those who make contrary between cognitive style and learning styles, Smith & Dalton (2005) present differences between learning style and learning preference, and learning strategies. Learning style refers to the individual's distinctive and habitual manner of perceiving knowledge, skills, or attitudes through study or experience. Meanwhile, learning preference is the favouring of one particular teaching method over another. Learning strategies are approaches that learners adopt in the acquisition of knowledge, skills, or attitudes through study or experience.

Various theories on the definitions of learning styles are given by some researchers above in which they define learning styles as well as comparing with the other terms. I have concluded them in the following table. It shows some experts' different views on learning styles. However, the point of the definition is similar, which talks about individuals' ways or preferences for certain activities in the undertaking learning process, as is depicted in Table 1.

Table 1 Definitions of learning styles according to several experts

No	Terms	Awla (2014)	(Cassidy & Cassidy, 2010)	Brown (2007)	(Riding & Rayner, 2013)	Smith & Dalton (2005)
1	Cognitive style	According to some experts, cognitive style and learning styles are used interchangeably	Individuals' way in approaching a problem in a general context.		Individuals' way in dealing with learning performance and learning situations	-
2	Learning styles		the role of cognitive styles in a learning context.		a personal preference for instruction or certain learning activities considering an IDs issue	individual's distinctive and habitual manner of perceiving knowledge, skills or attitudes through study or experience

3	Learning preferences	-	-		-	is the favouring of one particular teaching method over another
4	Learning strategies	-	-		-	approaches that learners adopt in the acquisition of knowledge, skills, or attitudes through study or experience.

In addition to the definitions of learning styles, a very critical point is brought up by Kolb & Kolb (2013) who propose that learning style is not a fixed psychological trait but a dynamic state resulting from patterned transactions between the person and the environment. It is further described in:

> The stability and endurance of these states in individuals come not solely from fixed genetic qualities or characteristics of human beings: nor, for that matter, does it come from the stable fixed demands of environmental circumstances. Rather, stable and enduring patterns of human individuality arise from consistent patterns of a transaction between the individual and his or her environment (p.9).

Following this, Williamson (2018) states that in general learning styles are also influenced by consistency in a subject field or profession because expertise somehow refers to certain learning styles. For instance, an engineering student who usually deals with technical problems will try to solve them by applying abstract principles. This way, he or she will be exposed to the learning style corresponding to Abstract Conceptualization and Active Experimentation in Kolb's framework.

The related view has been mentioned in the previous section stating that the learning style variable is an ID factor that likely to be adaptive to increase the effectiveness of instruction (Cohen and Dörnyei, 2002, as cited in Pawlak, 2012). Responding in the same way to this issue, Sullivan (2009) in *The Sage Glossary of the Social and Behavioral Sciences,* as cited in Williamson (2018) proposes that some individual traits may be more adaptive, whereas others are stable and less malleable, such as gender, culture, and race, even education, and age are considered as stable traits. Meanwhile, the effort and attributions of success and failure are some examples of the more malleable or adaptive traits. In this case, the success and failure of second language learning.

Experts in the area of *psychology* and education have given their views on the issue of whether learning styles are stable or dynamic. The following is the view on the issue which is given from the areas of Biology and Neuroscience, that cannot be separated from the complex process of human learning (Dantas & Cunha, 2020). Knowledge an enrichment

for the issue of "stable-unstable" "learning styles. In Biology, the human brain is divided into overlapping layers with different functions of which are topped by the cerebral cortex. In turns, it is divided into large areas of which function is processing the external stimuli that are received by the sense organs and then produce an output. The areas of the cerebral cortex are visual, auditory, sensory, and motor specific cortexes. In spite of their distinct processing functions, they are intensely interconnected in changing the information received by the sense organs into knowledge (Dantas & Cunha, 2020).

The process that takes place in the human brain described above is supported by a Neuroscience study. With the help of technological development, we can observe through an image of a living brain the *activities* in the brain structures, neurons, and interconnection between various parts of the brain (Rees, Booth, & Jones, 2016 as cited in Dantas & Cunha, 2020). An image shows interconnected activities between the various parts of the brain in the process of information. Accordingly, this activity integrates broader areas of the brain then allows it to make some adjustments and ability to learn.

The approaches viewing learning styles as a dynamic and adaptive trait oppose the traditional psychological treatment of IDs variables as stable traits responsible for individual learning and performance. Griggs (1991) as cited in Riding & Rayner (2013) defines learning styles as a combined characteristic of cognitive, affective, and physiological factors that serve as relatively stable indicators of how a learner perceives, interacts with, and responds to the learning environment. Curry (1983) and Sadler-Smith (1996) as cited in Smith & Dalton (2005) have the same point of view. They argue that learning styles have stability in every individual in the context of any learning circumstances. Meanwhile, learning preferences are less stable as an individual's characteristic. Evidence showed that an individual who encountered similar learning tasks and contexts would be likely to choose similar preferences (Sadler-Smith & Riding 1999 as cited in Smith & Dalton, 2005).

The arguments about stable learning styles are shown by some experts in this paper. In their opinion, learning styles are adaptive and dynamic as a result of their interaction with the environment, particularly in the context of how to achieve an effective learning process. Williamson (2018) adds a point that individuals' consistent responses toward the environment also influence their learning styles, in this case, in the context of a profession. Meanwhile, experts who have an opposing view suggest that learning styles are stable in any learning circumstances while learning preferences are learners' flexible characteristics.

To define learning styles, I would refer to Riding and Rayner (2013) who differentiate cognitive style and learning styles. They argue that both cognitive style and learning styles play a role in language learning but at different stages. Cognitive style is a general stage of the learning process and tends to be fixed, whereas learning styles accommodate differences in the learning process caused by individuals' preference in certain learning activities and their IDs. I can then correlate it with the point of view from Kolb & Kolb (2013) who suggest that learning styles are dynamic or unstable. Learning styles are affected by how circumstances stimulate individuals' responses. In the learning context, kinds of classroom activities might stimulate and encourage students in developing their ways of learning. The ways of learning shown by individuals are categorized into several types of learning styles, that will be discussed in the following section.

Types, Models, and Assessments of Learning Styles

Types of Learning Styles

Individuals' learning styles influence the way individuals choose learning preferences. Some individuals have more than one or mixed learning styles and others only belong to one dominant learning style when they are exposed to information, knowledge, or skills. Each learning style has its characteristics. Based on the characteristics, learning styles are grouped into a number of dimensions/types which are in turn grouped into learning style models.

There are numerous types of learning styles proposed by several experts. According to Brown (2007), individuals' styles result from the way they internalize their total environment of which process not only involves cognitive domain, but also physical and affective domains. He adds that plenty of learning styles types involving imaginable sensory, communicative, cultural, affective, cognitive, and intellectual factors have been proposed by experts in the areas of education and psychology. However, they can be narrowed into three big scopes, i.e. cognitive, personality (psychology), and sensory (Dörnyei, 2005; Oxford, 2016). Cognitive deals with analytical/global and field-dependent/field-independent learning styles, i.e. Kolb's model of learning styles and Ehrman and Leavers Personality construct. Personality learning styles consists of extroverted/introverted, random-intuitive/concrete sequential, and closure-oriented/ open oriented. Meanwhile, sensory learning styles have three sub-types: visual, tactile/kinaesthetic, and auditory. Considering the close association with teaching second language learning, Brown (2007) proposes five learning styles, namely field independence-dependence, left- and right-brain styles, ambiguity tolerance, impulsive vs. reflective, and visual/auditory/kinesthetic styles as illustrated in Figure1.
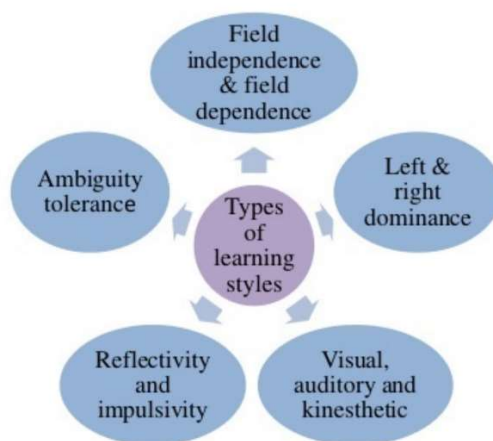
Figure 1. Five Learning Styles associate with L2 learning
(Brown, 2007)

a) Field Independence-Dependence

Field Independence (FI) style is an ability to perceive a particular, relevant item or factor in a "field" of distracting items. On the other hand, Field Dependence (FD) is the tendency to be "dependent" on the total field. A field independent style enables learners to distinguish parts from a whole, to concentrate on something, and to analyze separate variables without the contamination of neighboring variables. On the other hand, the field-dependent style enables learners to perceive the whole picture, the larger view, the general configuration of a problem or idea, or event. Two conflicting hypotheses have emerged about how these are related to second language learning. FI is related to classroom learning, whereas FD persons will be successful in learning the communicative aspects of a social language. The two hypotheses could be seen as paradoxical, but the answer to the paradox would emphasize that both styles are important. The "nature" language learning outside the classroom requires an FD style, while the classroom type of learning requires an FI style.

b) Left- and Right- Brain Dominance

The left hemisphere is associated with logical, analytical thought, with mathematical and linear processing of information. The right hemisphere perceives and remembers visual, tactile, and auditory images.

It's important to remember that left and right hemispheres operate together as a "team." Without distinction, both hemispheres are involved in most of the neurological activity for the human brain. The left-right brain construct helps to define another useful learning style continuum, with implications for second language learning and teaching. They think past methods failed because they depended too much on the left brain and ignored the importance of the right brain. Stevick (1982) as cited in Brown (2007) concluded that left-brain-dominant second language learners are better at producing separate words, gathering the specifics of language, carrying out sequences of operations, and dealing with abstraction, classification, labeling, and reorganization. On the other hand, right-brain-dominant learners act to deal better with whole images, generalizations, metaphors, and emotional reactions and artistic expressions.

c) Ambiguity Tolerance

Ambiguity tolerance concerns the degree to which learners are cognitively willing to tolerate ideas and propositions that oppose their belief system or structure of knowledge. They belong to open-minded learners. In a second language learning context, open-minded learners can accept contradictory information, such as different rules from the native language including the internal inconsistency due to certain "exceptions", etc. In their study, Chapelle and Roberts (1986) as cited in Brown (2007) found that learners with a high tolerance for ambiguity were slightly more successful in certain language tasks.

d) Reflectivity and Impulsivity

In reflectivity, people tend to make a quick guess at an answer to a problem. But in impulsivity, people tend to make a slower, more calculated decision. David Ewing (1977) as cited in Brown (2007) referred to two styles that are closely related to the reflectivity/impulsivity (R/I) dimension: systematic and intuitive styles. An intuitive style implies an approach in which a person makes a number of different gambles based on assumption or feeling. Systematic thinkers tend to venture into a solution after extensive reflection. Reflective children tend to make fewer errors in reading than impulsive children. However, impulsive persons usually tend to read faster.

A few studies have related R/I to second language learning. Doron (1973) as cited in Brown (2007) found that reflective students were slower but more accurate than impulsive students in reading. R/I highlights important considerations for the language learning process. Teachers sometimes make early judgments to mistakes made by students with an impulsive learning style who would like to gamble in answering questions or responding to tasks. On the other hand, teachers should be aware of giving some more time to students with a reflective learning style who struggle in finding answers or responses to teachers' questions or tasks.

e) Visual, Auditory, and Kinesthetic Styles

Visual learners tend to prefer reading and studying charts, drawings, and other graphic information, while auditory learners prefer listening to lectures and audiotapes. Kinesthetic learners will show a preference for demonstrations and physical activity involving bodily movement. Ideally, most successful learners are those who are bimodal learners who combine visual and auditory inputs. However, even slight preferences in one style or the other have given distinction one learner from another, which becomes an important factor for classroom instruction.

Those five types of learning styles suggested by Brown (2007) have some similarities among them. The right-brain dominance is similar to visual, auditory, and kinesthetic styles because the right hemisphere perceives and remembers visual, tactile, and auditory images. Meanwhile, the left-brain dominance is similar to Field Independence-Dependence, ambiguity tolerance, and reflectivity, and impulsivity because the left hemisphere deals with logical and analytical thought in which learners analyze and perceive given information and how to respond/process it.

Based on my experience during my school year, I would recommend classifying students referring to learning styles of visual, auditory, kinesthetic, reflectivity, and impulsivity.

It is because students are very evident in showing their preferred way in any of those styles during classroom activities. They show their responses to the use of different media involving, for example visual, listening, print-based/text, and hands-on materials. In addition, during teaching delivery, teachers will face some students who quickly respond to teachers' questions but tend to make mistakes, while other students take too long in giving responses. Teachers should recognize this so they will not make a false judgment on their students' competence.

Models and Assessments of Learning Styles

Some researchers/theorists group learning styles types/dimension into learning styles models. Two of them are discussed below along with the instruments to assess the models respectively and one learning style instrument from Brown.

a)   Kolb's Learning Styles Model and Assessment

It is supported by Kolb's Experiential Learning Theory (ELT), a comprehensive theory of learning and adult development. As seen in the diagram in figure 2, Kolb's experiential learning cycle shows a dynamic view of learning that integrates the two opposite forms of experiencing (reflection/action) and then transforms experiences into knowledge (feeling/thinking). The model consists of four processes of learning cycle: Concrete Experience (CE), Reflective Observation (RO), Abstract Conceptualization (AC), and Active Experimentation (AE), as depicted in Figure 2. According to (Kolb & Kolb, 2013), the most effective learning takes place when learning activities embrace all four processes. The first style is Diverging (derived from the CE/RO combination). Individuals with this style have a preference for visual stimuli, concrete situations, combined with diverse information. They feel comfortable with group work, discussion, and constant feedback. The second one is Assimilating which is characterized by the preference for visual and mental (RO/AC) stimuli. Learners with this style deal more easily with analysis, explanations, theories, texts, and all kinds of material that allow analysis and reflection. The third one is Converging which identifies with practical tasks and deductive reasoning to solve a given problem (AC/AE). These learners have a preference for direct and practical guidance and learning tasks. The last style is Accommodating which identifies with the preference for making plans, projecting the future, creating prospects for situations, from the stimuli of involving thinking and doing (AE/CE). Individuals with this style handle challenging activities easily, take risks, and solve problems intuitively (Kara, 2009 as cited in Dantas & Cunha, 2020).
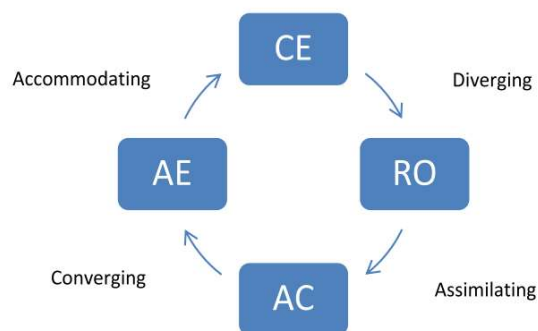
Figure 1 Kolb's experiential learning cycle

In 1971, David Kolb made 9 questions in his first questionnaire and then developed them to be 12 questions from 1985 onwards (Kolb & Kolb, 2013). To be exact, there are 7 versions of the Kolb Learning Style Inventory (KLSI), namely the LSI version 1 in 1971 and 1976, version 2 in 1985, version 2a in 1993, version 3 in 1999, the KLSI version 3.1 in 2005, version 3.2 in 2013, and version 4.0 in 2011. They are in the same format, except for the LSI version 1 and the KLSI version 4.0 which consists of 20 items; 12 items are similar to version 3.1, and 8 items about learning in different contexts. The KLSI consists of questions of individuals' preferred learning styles and stages that help questionnaire respondents measure their learning styles and learning preferences (Yassin & Almasri, 2015). The KLSI results reflect the individuals' focus on the four learning processes and measure individuals' preferences of concreteness and reflection (Raschick, Maypole, &Day, 1998 as cited in Dantas & Cunha, 2020). To be able to get access to the KLSI, we have to pay in advance (no free of charge available).

b)   Fleming's VAK/VARK model
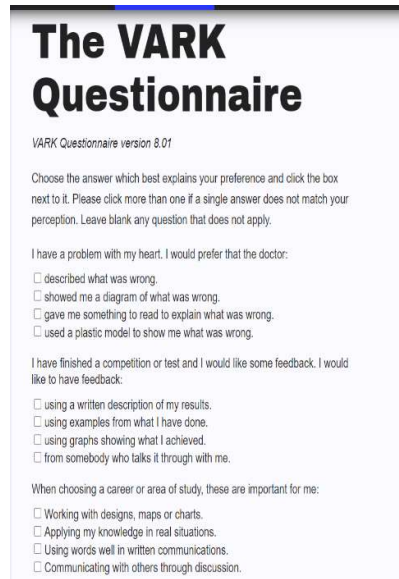
VARK stands for Visual, Aural, Read-Write, and Kinesthetic, which refer to the four modalities of the earlier Neuro-linguistic programming VARK. (Lincoln & Rademacher, 2006 as cited in Yassin & Almasri, 2015). The model corresponds to the senses used by individuals to receive and process information. They use their sight, speech, and hearing with little attention paid to taste, touch, or smell. The VARK inventory uses four modalities

Visual (V). Individuals who favour the visual aspect learn best from pictorial information and descriptions such as drawings, graphics, and images. They organize the reasoning better with the use of lists and diagrams. For these learners, the most indicated activities are lectures supported by slide presentations, diagrams, graphics, videos and images, resolution of exercises, surveys, or any other materials that contain visual information This mode does not include media such as pictures, movies, videos, and animated websites because they combine modes of senses.

 Aural (A). This model involves individuals' hearing and speech. Individuals who prefer this mode learn best from lectures, group discussions, or seminars. Fleming (1998) as cited in Yassin & Almasri (2015) argued that learners who tend to this learning style learn best from traditional lectures, group discussions, tutorials, and seminars in which they can speak up and communicate with other students.

 Read/Write(R). Learners of this style will read and/or write information as a means of learning. They usually count on notes, charts, and any kind of written form to learn better. Other activities of processing new information preferred by this type of learners involve reading and producing texts like essays, articles, comments, or any other types of written forms. Most teachers have a strong preference for using this modality when teaching.

Kinesthetic (K). Activities related to experience and practice are the most meaningful ways to learn for learners belong to this type. The key is the connection to reality. The learners need movement, sensory touch, and interaction with the environment to acquire information or knowledge. Some sample activities are hands-on activities, problem-solving, case studies, demonstrations or physical activities (Dantas & Cunha, 2020; Yassin & Almasri, 2015).

Figure 2. The "VARK questionnaire

The VARK Learning Style Assessment questionnaire was made in 1983. There are three components of VARK questionnaire (Allen, Kelly; Scheve, Jeanna; Nieter, 2011): (1)The standard "VARK" questionnaire, version 7.0 for high school, college, and adult learners (available in a pencil-and-paper version and an online version) in 25 different languages; (2) the "VARK questionnaire for younger people" is a 16-item questionnaire addressed for younger people aged 12–18 years old that actually parallels the adult version but with some adjustment of questions that are more suitable to the age group; and (3) an "Athletes VARK questionnaire", to be administered by coaches and educators working with high schools college, and adult athletes. VARK can be conducted to assess a class, group, or team as well as a one-to-one training or counseling situation. The "VARK questionnaire for younger people" containing16 items is presented in Figure 3 below.

c)   Recognizing learning styles through a survey by Brown (2007)

Other than The Learning Style Inventory (LSI) by Kolb and The VARK Learning Style Assessment, a number of learning styles assessment instruments are available to assist students to identify their learning style(s). Some of them are Oxford (1995) with Style Analysis Survey and Wintergerst, DeCapua and Verna (2002) as cited in Brown (2007) who propose Learning Styles Indicator

offering classic examples of guiding learners to investigate and draw a conclusion of their learning style. Those instruments contain a self-check questionnaire which is the most widely used procedure in examining learning styles. In that way, learners must give their responses to provide questions accompanied by a scale of points of agreement and disagreement. Similarly, Brown's (2002) Strategies for Success as cited in Brown (2007) offers a self-help guide for English language learners. It is conducted after one fills out a questionnaire. The questionnaire is presented in figure 4. It is an easy and helpful way for teachers to help their students find out their learning styles. The questions assess the students' psychological factor when learning a second language.

Teachers can choose and administer any questionnaire most suitable to their classroom characteristics considering age group, a number of questions, and the dimensions of learning styles assessed.

Figure 4. Brown's Strategies for Success

Having compared Kolb's Learning Styles and Fleming's VAK/VARK models and assessments, I found some similarities. Learners with Diverging and Assimilating learning styles have a preference for visual stimuli, which is similar to the preference of Visual learners. However, in addition to visual stimuli, learners with Diverging and Assimilating learning styles also enjoy learning concrete situations combined with diverse information and mental stimuli. Furthermore, learners with Converging learning styles prefer direct and practical guidance, which are similar to Kinesthetic learners.

Regarding learning styles assessments, both the Learning Style Inventory (LSI) by Kolb (in order to assess, users must pay in advance) and the VARK Learning Style Assessment by Fleming is available paper-based and online, whereas the questionnaire by Brown should be paper-based. The similarity is those three instruments can be administered by teachers or even students themselves to identify their learning styles.

Align with the learning styles types that I previously recommended to attribute students, I prefer Fleming's VAK/VARK model as a reference to group students. The preferred ways of learning in this model are the activities that teachers usually and supposedly apply in their teaching methods, such as using a slide presentation, images, and videos; lecturing and conducting group discussion; reading and writing any forms of texts; or hands-on and physical activities. Along with that, the VARK Learning Style Assessment questionnaire offers teachers with options in which they can choose the most suitable instrument considering age group, whether students belong to adult or young/adolescent learners, or considering a special group of students who are adult athletes. Some studies were conducted to investigate students' learning styles in English classrooms by referring to certain learning styles models as well as employing the instrument.

As an example of categorizing students into three types of learning styles, namely visual, auditory, and kinesthetic, a research was conducted by Shanti Manipuspika (2020) who investigated the learning styles of the first-year students at English Department Brawijaya University in Malang as well as the influence of Indonesian culture on the students' learning. The researcher employed a descriptive qualitative approach. To collect the data, she distributed Barsch Learning Styles Inventory (BLSI) questionnaire to 73 participants. The result showed that the freshmen of English Department Brawijaya University Malang belonged to three types of learning styles, visual, auditory, and kinesthetic. Further, it highlighted that most of the participants were visual learners followed by auditory and kinesthetic learners. Some students were also identified as bimodal learners since they combined two learning styles, visual and auditory. It then revealed the relationship between learning and Indonesian culture which mostly relied on reading and listening modes of learning instead of giving spaces to practice knowledge. The researcher recommended students to identify their learning styles, which should be also recognized by teachers. By doing so, students would be able to find the most suitable strategies in learning related to their learning styles regardless of any teaching methods and any learning environment they face. Teachers were encouraged to create effective teaching methods.

Prystiananta (2018) also conducted a study on the learning styles of the students at Accounting Program of AAK PGRI Jember. As the sample, the researcher took 41 students from three different academic years who were in EFL classroom. The research implemented non-experimental research with a survey research design. The data collection

was administered through the Perceptual Learning Style Preference Questionnaire (PLSPQ) by Joy Reid (1984, p. 110) and open-ended interviews. The questionnaire consisted of 30 items of statements about 6 learning styles, namely visual, auditory, kinesthetic, tactile, group learning, and individual learning. From the data analysis, it was found out that visual learning style became the most preferred style, followed by kinesthetic style, group style, auditory style, tactile style and individual learning style fell as the least preferred style. It indicated that most EFL classroom students of Accounting Program of AAK PGRI Jember preferred learning English supported by visual media such as pictures, charts, and videos. Meanwhile, they did not enjoy learning English individually. Similar to the previous research, this study suggested students to identify their learning styles to find their best way of learning English that would be resulted in an enjoyable learning process.

Besides those researches conducted in Indonesia, it is worth-knowing to learn an experience shared by a teacher called Joe Ruhl. In his talk given at a TEDx event (available on TEDx Talks YouTube channel which released the premier on May 27, 2015), he delivered his presentation entitled "Teaching methods for inspiring the students of the future". At that time, he taught Biology, Genetics, and Science Research courses at Jefferson High School in Lafayette, Indiana, America. He acknowledged the presence of students' different learning styles and accordingly took account of them then in turn, incorporated them in his teaching method. The basic idea was to provide students with choices. Students were allowed to choose any activities they preferred to do during the learning process. In the beginning of the academic year, he designed learning materials complemented by various learning activities in regards to different learning styles. When he was teaching, he allowed his students to choose from the "menu" of activities. There were groups of 2-4 students who listened to tutorials on the computers, watched and answered questions in the video, played an educational game, worked on hands-on/minds-on simulation, and filled out a reflection sheet of effort self-evaluation. The students loved doing so and it made learning process fun and meaningful. This teaching method at once best showed the practice of students-centered approach.

Considering the theoretical framework related to learning styles and some studies that previously conducted researches dealing with students' learning styles in English classroom activities, the following section is to propose a teaching model as one of the efforts to accommodate different learning styles of students in English classroom activities.

Accommodating students' diverse learning styles in English classroom activities

The process of teaching never refers merely to delivering learning materials to students. Along with it, IDs of students present and play an important role in their second language acquisition. A learning style is one of the IDs that English teachers should identify and accordingly make some adjustments in learning activities to achieve successful second language acquisition.

However, dealing with the diverse learning styles of students is not easy. Moreover, based on government policy, most schools in Indonesia set a large number of students in one classroom. Time allocation is another factor that should be paid attention to. In turn, they become challenges for teachers to be able to accommodate multiple learning styles across students. In addition, time allocation for each meeting becomes another issue. Yet, it should

not cause teachers to let students' learning styles remain only to the extent of teachers' knowledge.

Thus, the following steps can be undertaken to accommodate students' diverse learning styles:

- **Step 1**. identifying students' learning styles in the first meeting. Teachers conduct it by distributing a learning style instrument, normally, in the form of a self-check questionnaire. Why recognizing students' learning styles should be done as earliest as possible? The result gives a significant contribution to both teachers and students. For students, finding out their learning styles will help them to choose their learning preferences in which they perceive, store, and retain new knowledge or skills (Yassin & Almasri, 2015). Thus, the learning activities will be more meaningful to them because they experience the easier, more enjoyable, and effective process. Having gained knowledge of their students' learning styles, teachers are able to make some adjustments in response to it. The suggested actions are presented in the following steps.

- **Step 2**. designing lesson plans that give a clear overview of the instructional objectives required and accordingly socialize them with students. It will help students to be more prepared because they have complete information on the class and then determine the ways to achieve the objectives (Yassin & Almasri, 2015). In creating lesson plans, teachers are supposed to complement them with various resources involving different kinds of media, such as printable and visual (with or without auditory) resources or computer-based materials (Smith & Dalton, 2005).

- **Step 3**. Matching teaching styles with different students' learning styles. It deals with how teachers determine their teaching methods and then make them connected to their students' learning preferences. Nevertheless, teachers are not supposed to pay attention to certain learning styles excessively, rather they should reinforce balanced teaching styles to accommodate different learning styles (Yassin & Almasri, 2015). This balanced teaching method is also applied to the given tasks. When students are offered a range of tasks, they will tend to choose one that suits their learning styles best. However, in regards to broadening the students' ways of learning and responding, teachers might sometimes assign their students randomly. Some examples of task variations are independent research, working in a group, hands-on activities, and so on (Smith & Dalton, 2005).

  The balanced method mentioned earlier can be interpreted as various teaching methods applied in the classroom. By applying combinations of teaching methods, supposedly the weakness of students can be camouflaged. Diverse learning styles would also be covered without excessive portion to one or some learning styles (Yassin & Almasri, 2015). Furthermore, since learning styles are dynamic and adaptive in an individual's IDs, exposing students only to their learning styles stimulus will box them and restrict their potential for developing other learning styles (Dantas & Cunha, 2020; Smith & Dalton, 2005). The most suitable methodology for effective learning activities would be to supply students with various learning styles instead of focusing on their single/mixed learning styles (Dantas & Cunha, 2020).

- **Step 4**. Being sensible to students' different pace in perceiving new information during the learning process. The different pace across students might result from the order of how they process new knowledge or skills with their learning styles. For example, some students need to listen to teachers' explanation before they can understand a chart. Meanwhile, hands-on activities will be much helpful for some students before they can make sense of teachers' explanation (Smith & Dalton, 2005).

The stages mentioned above highlight two main points that are initiated from teachers' awareness of their students' learning styles. Firstly, the knowledge of students' different learning styles encourages teachers to implement various teaching methods as a way to accommodate different learning styles of students. Secondly, the sensitiveness of teachers will develop teachers' understanding of students' psychological factors and then establish good communication with their students. It can involve a kind of guidance in which teachers can monitor students' progress (Smith & Dalton, 2005). Some students might need intensive guidance, while others would like to give themselves time for reflection where they can find any obstacles that may appear and then find out solutions to achieve learning objectives.

The main underlying focuses of taking account of students' learning styles into classroom activities are the effectiveness of second language learning and students as individuals who become the centre of the learning process. Teaching methods that acknowledge students' learning styles will generate students-centered activities where students can control or manage their learning process and teachers act as the facilitators (Smith & Dalton, 2005). This activity will raise students' awareness and confidence to be autonomous and responsible for the effectiveness of the learning process (Yassin & Almasri, 2015).

Various teaching methods create an encouraging classroom atmosphere where students will experience learning activities that are enjoyable and satisfying. Thus, English learning will be more meaningful and engaged with students. Embracing diverse learning styles methods by applying various teaching methods will make students feel special since their "individual difference' is channeled. By doing so, it can elevate students' comprehension of learning materials. It is then expected to result in the improvement of students' learning outcomes.

Conclusion

Students are unique and distinctive from one another due to their IDs. One of the IDs that plays a key role in second language learning is learning styles, which refer to students' preferred ways for learning. Knowledge of learning styles will help teachers to engage students in the meaningful learning process by incorporating students' diverse learning styles into the instructional design and the activities delivery in classrooms.

To do so, there are some steps that teachers can take. First, identifying students' learning styles at the very first meeting usually by delivering questionnaires. Second, designing and socializing lesson plans for students. Lesson plans should include various learning media. Third, matching teaching style with students' learning styles without excessive focus on certain learning styles. In this case, the balanced teaching method is recommended. Last,

being sensible toward different paces of students' responses to the given materials and tasks during the learning process due to students' different learning styles.

Teachers should focus on achieving an effective English learning process as well as value their students who have different styles of learning. As has been presented in the previous sections, referring to psychology, biology, and neuroscience factors, learning styles are dynamic and adaptive. Therefore, boxing students only to their learning styles stimulus seems to be unwise since it will hinder them to develop other ways of learning. Rather, conducting various teaching methods in classroom activities is more encouraged to accommodate students' different learning styles in regards to successful second language learning.

References

Awla, H. A. (2014). Learning styles and their relation to teaching styles. *International Journal of Language and Linguistics*, *2*(3), 241-245. DOI: 10.11648/j.ijll.20140203.23

Sheve, J., Allen, K., & Nieter, V. (2011). *Understanding learning styles: Making a difference for diverse learners*. Teacher Created Materials.

Brown, H. D. (2007). Principles of language learning and teaching . White Plains. *NY: Pearson Education*.

Cassidy, S. (2004). Learning styles: An overview of theories, models, and measures. *Educational psychology*, *24*(4), 419-444. DOI: 10.1080/0144341042000228834

Dantas, L. A., & Cunha, A. (2020). An integrative debate on learning styles and the learning process. *Social Sciences & Humanities Open*, *2(1*), 100017. DOI: 10.1016/j.ssaho.2020.100017

Dörnyei, Z. (2005). *The psychology of the language learner: Individual differences in second language acquisition.* Lawrence Erlbaum Associates, Inc.

Drachsler, H. (2011). Learner Characteristics. In Seel, N. M (Eds.), *Encyclopedia of the Sciences of Learning* (pp.2). Springer

Kolb, D. A., & Kolb, A. Y. (2013). *The Kolb Learning Style Inventory 4.0: A comprehensive guide to the theory, psychometrics, research on validity and educational applications.* Hay Group.

Yassin, B. M., & Almasri, M. A. (2015). How to accommodate different learning styles in the same classroom: Analysis of theories and methods of learning styles. *Canadian Social Science*, *11*(3), 26-33. DOI:10.3968/6434

Oxford, R. L. (2003). Language Learning Styles and Strategies: An Overview. GALA, 1-25.

Pawlak, M. (2012). *New Perspectives on Individual Differences in Language Learning and Teaching*. Springer.

Prystiananta, N. C. (2018). Indonesian EFL Students' Learning Styles. *Linguistic, English Education and Art (LEEA) Journal*, *2*(1), 30–42. DOI: 10.31539/leea.v2i1.344

Riding, R., & Rayner, S. (2013). *Cognitive styles and learning strategies: Understanding style differences in learning and behavior*. David Fulton Publishers.

Manipuspika, Y.S. (2020). Learning Styles of Indonesian EFL Students: Culture and Learning. *Arab World English Journal*, *11*(1), 91–102. DOI: 10.24093/awej/vol11no1.8

Smith, P., & Dalton, J. (2005). Accommodating learning styles: relevance and good practice in VET. *Teacher*, (159), 26-27.

Williamson, J. M. (2018). *Teaching to individual differences in science and engineering librarianship: Adapting library instruction to learning styles and personality characteristics*. Chandos Publishing.

Yassin, B. M., & Almasri, M. A. (2015). How to Accommodate Different Learning Styles in the Same Classroom : Analysis of Theories and Methods of Learning Styles. *Canadian Social Science*, *11*(3), 26–33. https://doi.org/10.3968/6434

Ruhl, J. (2015, May 27). *Teaching Methods for Inspiring the Students of the Future* [Video file]. Youtube. https://www.youtube.com/watch?v=UCFg9bcW7Bk

The VARK Questionnaire for Younger People. (n.d). VARK. Retrieved January 01, 2021 from https://vark-learn.com/the varkquestionnaire/