

Characteristics of Learners and Their Implications in Learning

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ABSTRACT

The purpose of this article was to provide an informative description of the various characteristics of learning people. The method in this study used a literature study using a qualitative approach through collecting relevant references regarding the diversity of people who learn. This research was a type of literature review research with a qualitative approach. The research procedure consists of: (1) the preparation stage in determining the topic, (2) the implementation stage of searching for relevant reference sources, and (3) the stage of writing down the findings from various reference sources. Reference sources traced in this study come from books and articles that have been published by online journals at 2000-2020. The data analysis stage used in this study was a qualitative approach which includes: data reduction, data presentation, and conclusion. Characteristics of learners can be defined as individual mental factors that can affect learning activities. Multiple intelligence is provided a special category of intelligence directly for each individual. The conclusion obtained is that every individual who learns is unique in understanding material and information, therefore a teacher or educator needs to provide the right model and method to optimize the ability of students to improve their competencies.

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1. INTRODUCTION

Many factors cause the low quality of education, including learning activities that are less responsive to the plurality of individuals and the environment in which students are located. Such learning is less useful for students. Learning is a process for individuals to change in terms of cognitive, psychomotor, and affective as a result of training and experience that is relatively permanent (Mustafa, 2021). To obtain meaningful learning needs to be designed and developed based on the condition of students as learning subjects and the cultural community in which students live. Students are humans who have a history, creatures with unique characteristics (individualism) (Budiningih, 2011). It concluded that an understanding of the subject of learning must be possessed

by teachers or other education personnel to be used as a foothold in developing theories or praxis of education and learning.

Characteristics come from the word character which means character traits, or habits possessed by relatively fixed individuals (Polansky, 2017). Characteristics refer to a person's character and lifestyle as well as values that develop regularly so that behaviour becomes consistent and easy to notice (Djamarah, 2000). People who learn or other examples are students, namely everyone who receives influence from a person or group of people who carry out education. In the learning process, the character of students must also influence it. The influence is related to the way students learn, the way students understand a theory, and the way students learn.

The concept of learner characteristics is used in the science of learning and cognition to designate the target group of students and determine aspects of their personal, academic, social or cognitive personality that can influence how and what they learn (Drachsler & Kirschner, 2014). Learner characteristics are very important for instructional designers because they enable them to design and create customized learning for the target group (İşman, 2011). Literacy ability in the learning process is an important aspect to absorb the information properly and correctly for learners (Hakim, 2021). In general, the characteristics of students that need attention in learning planning include (1) characteristics related to initial abilities, such as intellectual abilities, thinking skills, and movement abilities; (2) characteristics related to socio-cultural background and status; and (3) characteristics related to personality differences, such as traits, attitudes, feelings, interests, and talents (Sitanggang & Saragih, 2013). The learning modalities possessed by students can be the basis for determining the type of learning model carried out by educators both in groups and independent assignments (Syamsussabri & Sueb, 2018). It concluded that by taking into account the characteristics of students, more efficient, effective and motivating teaching materials can be designed and developed.

Regarding learner characteristics, there are often large differences between the characteristics of learners and different groups of learners such as children, learners, professionals, adults, the elderly and the disabled. This group differed in their motivation, prior knowledge, skill level, study time, and physical ability. Differences in the characteristics of students have an impact on the structure of instruction and the level of support and guidance for the learning process. An educator's creativity is needed in determining learning strategies so that the diversity of learner characteristics can receive material according to the expected goals (Khusniyah, 2020). Multiple Intelligence Theory on the type of linguistic intelligence has a positive impact on learning motivation (Tauhidi, Jurnal, Guru, Dasar, & Pradana, 2018). The results of study showed that there was a moderate intercorrelation between verbal/linguistic and logic/mathematical intelligence. So students' multiple intelligence is very important (Kanwal, Basit, Professor, & Assistant Professor, 2020). Exploring the learning styles and types of students' multiple intelligences can enable students to identify their strengths and weaknesses and learn from them (Şener & Çokçalışkan, 2018). With this understanding, it is hoped that every teacher will be able to serve students appropriately according to the conditions they have. Various kinds of activities in the educational process require an understanding of students, including educational planning, selection of learning tools and resources, selection of materials, teaching and learning interactions, providing motivation, counselling guidance services and various other factors.

The purpose of this article was to present: learner characteristics, multiple intelligences, intelligence, thinking styles, learning styles, the benefits of analyzing learner characteristics, learning, and the implications of learner characteristics in learning.

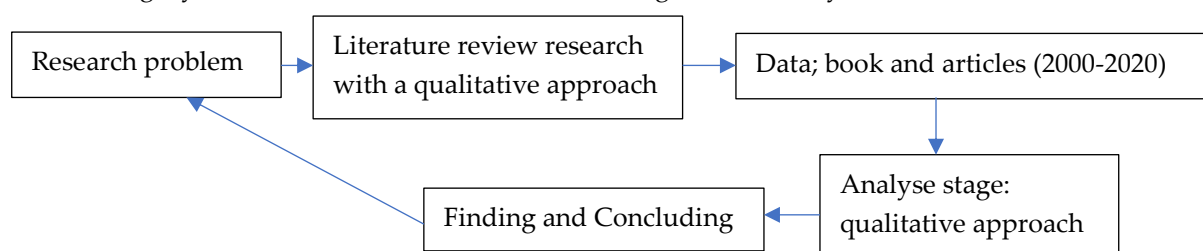
2. METHODS

This research was a type of literature review research with a qualitative approach. The literature study, namely reviewing various references from books and research results that have occurred to be analyzed to find concepts that can be used in the future as new references (Budiwanto, 2017). The research procedure consists of: (1) the preparation stage in determining the topic, (2) the implementation stage of searching for relevant reference sources, and (3) the stage of writing down

the findings from various reference sources (Creswell, 2012). At the preparatory stage in this research was the selection of topics about the concepts of various characteristics of people who learnt which consisted of multiple intelligences, intelligence, thinking styles and learning styles as a basis for tracing relevant reference sources. Then at the implementation stage was to look for relevant sources related to the understanding and various characteristics possessed by people who learn in terms of multiple intelligences, intelligence, thinking styles and learning styles.

Reference sources traced in this study come from books and articles that have been published by online journals at 2000-2020. This study only presented concepts and studied regarding the characteristics of people who learnt and the implications that occur in learning. So in other words, there are only four major concepts, namely multiple intelligences, intelligence levels, thinking styles and learning styles which are then linked to their implications in learning. The last step is to write down the results of the reference search in a concise description to conclude.

The data analysis stage used in this study was a qualitative approach which includes: data reduction, data presentation, and conclusion (Sugiyono, 2015). At the data reduction stage, it was carried out from the findings of statements by experts consisting of book authors and researchers from scientific publications presented in theory. Furthermore, it was described with the presentation of short sentences that were easily understood by the reader. At the final stage, conclusions can be drawn about the patterns that occurred in multiple intelligences, intelligence levels, thinking styles, and learning styles which are then linked to the learning carried out by educators.



Picture 1. The Framework of Study

3. FINDINGS AND DISCUSSION

3.1 Learner Characteristics

Characteristics of learners or learners can be defined as individual mental factors that can affect learning activities (Minoru Nakayama, Mutsuura, & Yamamoto, 2021). Learner characteristics can be personal, academic, social/emotional and cognitive. Personal characteristics are often associated with demographic information such as age, gender, maturation, language, socioeconomic status, cultural background, and special needs of learner groups such as specific skills and disabilities for learning disorders (Drachsler & Kirschner, 2014). Academic characteristics showed education and related learning such as learning objectives (individual or group), prior knowledge, type of education, and level of education. Social/emotional characteristics relate to groups or individuals about groups. Examples of social/emotional characteristics are group structure, individual place in the group, friendliness, self-image (also feelings of self-confidence), mood, and so on. Cognitive characteristics relate to things like attention span, memory, mental procedures, and intellectual skills that determine how a learner perceives, remembers, thinks, solves problems, organizes and represents information in his brain.

In classifying the characteristics of students, they are divided into two, namely characters that are formed from the personal environment and characters related to the psyche of students. The character that is formed from the person and the environment is influenced by several things, namely age, gender, parents' economic circumstances, pre-school abilities, and living environment. Then the

character of students is affected by their psychology of students, it is formed by several aspects, namely the level of intelligence, the development of the child's soul, learning modalities, motivation, talents, and interests of students.

In everyday life at school, teachers can only observe the character of students who are influenced by their psychological state of students. This becomes easy to analyze because the teacher is directly connected to the students. However, to analyze the character of students who are formed from personal influences with their environment, teachers will find it difficult to analyze them. Because teachers are not directly connected to the environment of all students, such as teachers, it is impossible to immediately know all the economic conditions of the parents of students and the environment in which all students live. For this reason, this study will discuss analyzing the characteristics of students related to their psychology of students.

3.2 Multiple Intelligences

Intelligence is defined as the ability to understand complex ideas, be able to adapt effectively to the environment, be able to learn from experience, be able to carry out tasks in various situations, be able to overcome obstacles using his mind (Suarca, Soetjningsih, & Ardjana, 2005). Gardner put forward his theory called Multiple Intelligences (MI) or multiple intelligences in 1983 to provide a special category of intelligence directly for each individual who has several different intellectual potentials and talents (Tung, 2015). Multiple intelligences are grouped into seven bits of intelligence, namely linguistic, logical-mathematical, bodily-kinesthetic, spatial, musical, interpersonal, and intrapersonal (Tung, 2015). The explanation of the seven aspects of intelligence in multiple intelligences is as follows.

Linguistics, intelligence of Language science with the ability to be sensitive to sound, structure, meaning and function of words and language that involves intelligence and abilities in writing, reading poetry, and telling stories (Suarca et al., 2005). Possible careers of people with this ability are writers or orators, such as Virginia Woolf, and Martin Luther King, Jr.

Logical-Mathematical logic and mathematical intelligence: is the ability to digest numerical patterns, logical operation rules, the ability to handle long chains of reasoning involving the ability to understand patterns, categories, relationships, and solving mathematical problems (Suarca et al., 2005), strategy games, experimental proof of propositions. Possible careers for people with this ability are scientists or mathematicians, such as Madame Curie, and Blaise Pascal.

Bodily-kinesthetic, body kinesthetic intelligence: is the ability to control movement and handle motion in a smooth and detailed manner, which involves intelligence and abilities in athletics, dancing, and handicrafts (sewing, carpentry) (Suarca et al., 2005). Possible careers of people with this ability are athletics, dancers, and sculptors, such as Jesse Owens, Martha Graham, and Auguste Rodin.

Spatial, spatial intelligence: is the ability to perceive and understand visual space accurately and in detail and can transform into spatial perception which involves solving chaotic paths, intricate and complex carvings, images and spatial imagination (Suarca et al., 2005). Possible careers for people with this ability are artists or architects, such as Fida Kahlo, LM. Pei.

Musical, musical intelligence: is the ability to generate and appreciate the rhythm, pitch, and colour of sound to perform musical expressions involving the ability to sing, and make musical arrangements; the ability to distinguish musical notes (Suarca et al., 2005). Possible careers for people with this ability are composers or performers, such as Stevie Wonder, and Midori.

Interpersonal, intelligence related to interpersonal relationships: is the ability to digest and understand, and respond to moods, temperaments, motivations, and desires of others involving leadership skills, communication, understanding the feelings of others (Suarca et al., 2005). Possible careers for people with this ability are counsellors or political leaders, such as Nelson Mandela and Carl Rogers.

Intrapersonal, mental self-management intelligence: is the ability to control, reflect on personal feelings and emotions, and understand one's strengths and weaknesses involving self-understanding and motivation (Suarca et al., 2005). Possible careers for people with this ability are psychotherapists or spiritual leaders, such as Sigmund Freud, and Billy Graham.

In 2000, a new category of intelligence was added (the eighth intelligence): Naturalist, intelligence and awareness involving understanding, observation, and environmental organization. This ability involves sensitivity to the existence of nature, plants and animals, and observations of natural phenomena such as Sacagewa, environmental activists, and nature lovers (Suarca et al., 2005). And more recently, other intelligence groups have also been added, namely: Existential, (existential intelligence) intelligence about understanding the meaning of life and after life, and abilities in the fields of religion, philosophy, and art. And finally Gustatory/Olfactory intelligence, intelligence that involves sensitivity to chemicals related to taste and smell. The ability of this field is beneficial for cooks, and olfactory experts. So, it can be concluded that teachers must pay attention to the concept of multiple intelligences possessed by students, so that linguistic, logical-mathematical, kinesthetic-physical, spatial, musical, interpersonal, and intrapersonal intelligence can be a guide for educators in improving student skills.

3.3 Intelligence

Intelligence Quotient (IQ) is a comparison between Mental Age (MA) and Chronological Age (CA) and results are multiplied by 100. Mental Age (mental age) is a measure obtained from the method of measuring intellectual development by comparing children's scores on intelligence tests with the average Intelligence test scores of children his age. Chronological Age is a measure of the biological age of a child (Tung, 2015). The formula for determining the level of individual intelligence is as follows:

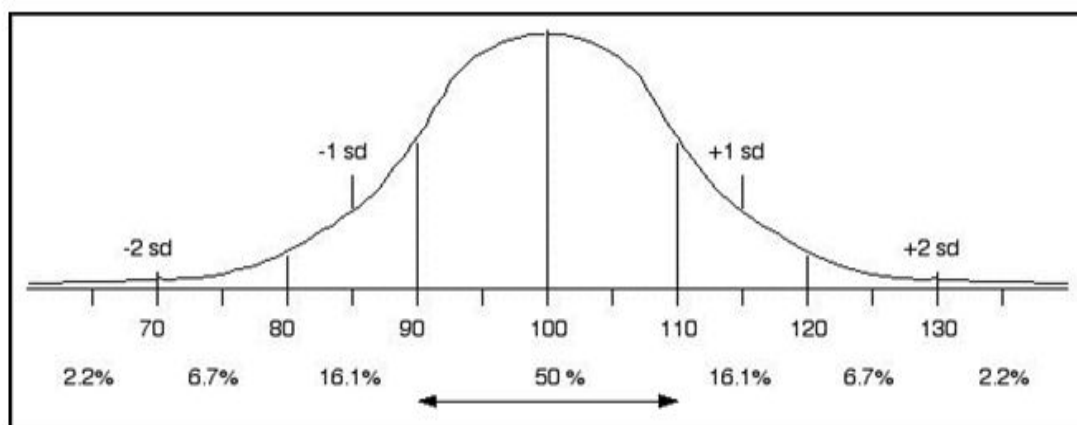
$$IQ = \frac{MA}{CA} \times 100\%$$

The reference used for the IQ measure depends on the standard version of the measurement used. In terms of measuring intelligence, Binet reminds two things: first, intelligence does not measure permanent abilities or natural intelligence, but intelligence is the result of heredity and environmental influences. Second, Intelligence tests should not be used to label certain individuals. The following IQ measures are often used, namely: idiot, imbecile, Maron, stupid, low normal, medium normal, high normal, intelligent, very intelligent, and genius (Tung, 2015).

There were the types of idiot. The first is idiots, (0-29). Idiots are the lowest group of mentally retarded individuals. They cannot speak or only say a few words. He cannot take care of himself such as bathing, dressing, eating, and so on. The idiot kid stays on bed in his whole life. The development of intelligence is similar to that of a normal 2-year-old child. Generally, his age is not long, because to low intelligence, his body is also less resistant to disease. The second is imbecile, (30-40). An imbecile is a group of children whose Intelligence is on a higher level than idiot children. He can learn the language and can take care of himself under close supervision. He can be given light exercises, but in his life, he is always dependent on others, and cannot be independent. His intelligence is the same as a normal child aged 3 to 7 years. The imbecile group cannot be educated in ordinary schools. The third is maron / mentally retarded, (50-69). Debt groups to a certain degree can still learn to read, write, and make simple calculations. can be given certain routine work that does not require planning and solving. Many of these debilitated children are educated in special schools. Thr fourth is stupid or dull/ borderline, (70-79). This group is above the retarded group and below the normal group (as a limit). With difficulty with several obstacles, the individual can carry out junior high school but it is very difficult to be able to complete the last classes in junior high school.

While the level is normal including; 1) normal low (below average), (80-89). This group includes the average or moderate normal group but at the lowest level. They are a bit slow in learning They can finish junior high school but it's a bit difficult. to be able to complete tasks at the high school level. 2) Medium normal, (90-109). This group is a group of people with normal or average intelligence.

They are the largest group in percentage of the population. 3) Normal high (above average), (110-119). The ml group represents normal but high levels of p individuals. 4) Intelligent (superior), (120-129). This group is very successful in schoolwork! academic. They are often found in ordinary classes. Class leaders usually come from this group. 5) Very intelligent (very superior/ gifted), (130-139). Very superior children are better able to read, have excellent knowledge of numbers, have an extensive vocabulary, and are quick to understand abstract meanings. In general, the factors of health, dexterity, and strength are more prominent than in normal children. 6) Genius, (IQ> 140). This group is extremely intelligent. In general, they can solve problems and find something new even though they are not in school. This group exists in all races and nations on all economic levels, both men and women.



<70	Mentally retarded → 2,2%
70-80	Underdeveloped borderline → 6,7%
80-90	Low average → 16,1%
90-110	Average → 50%
110-120	Average height → 16,1
120-130	Superior → 6,7%
>130	Very Superior → 2,2%

Picture 1. Normal Curve of Intelligence Level

From this explanation, it can be concluded that the level of intelligence has a different range or level. Every student has a different level of intelligence. Therefore, educators must understand the concept of the level of intelligence in order to give different treatment to each person. The treatment given to students according to the level of intelligence can provide opportunities for dynamic skills and knowledge enhancement.

3.4 Thinking Style

In his style of thinking, Gregorc gives an organized view of how the thought process occurs through the reception of information, namely in two ways: concrete and abstract, using our five senses. Abstract uses our intuition and imagination how to organize information and organize thought processes, namely in two ways: sequential and random. sequentially, step by step. random - randomly without a special order (Tung, 2015). These two ways of receiving and managing give us four combinations of learning styles. Everyone has and uses all four, but most of us will be dominant in at least one or two. Idea of Gregorc's thinking style is a combination of how a person receives and processes information in the brain. This idea was summarized in his work *The Mind Styles Model* in 1984 (Tung, 2015). Gregorc's Model of Mind Style invented by Dr Anthoni F. Gregorc, professor of curriculum and teaching at Connecticut University, said the thinking style is divided into four thinking styles, namely Concrete Random (CR), Abstract Random (AR), Concrete Sequential (CS),

and Abstract Sequential (AS) (Ginnis, 2008). This thinking style presents an organized way to consider how the mind works, Gregorc divides the brain into two types, first perception (concrete and abstract) namely how to receive information, and second arrangement (sequential and random) namely how to use the information we perceive.

Some people may be quite thorough or have more or less the same amenities in all styles, but most have a natural inclination towards one or two styles. Gregory divides thinking styles into four groups: (1) Concrete Sequential Thinking Style (CS), (2) Abstract Sequential Thinking Style (AS), (3) Concrete Random Thinking Style (CR), (4) Abstract Random Thinking Style (AR) (Tung, 2015). The following is an explanation of the four types of thinking styles (Ginnis, 2008).

Concrete Sequential (CS) Gregorc explained that students with a dominant Concrete Sequential Mind Style (CS) learn best through structured practice. They like hands-on learning with step-by-step instructions such as following a computer program, playing a game with clear rules, making a model from a set of instructions, completing a short task list, following a prescribed route, drawing by numbers, observing and impersonating an expert, working through a manual. CS thinking style is a thinking style that always pays attention and remembers details and is easier to accept structured lessons, can't be rushed and to complete the task one must understand the information one receives one by one.

Abstract Sequential (AS), namely students with a dominant Abstract Sequential Mind Style (AS), best learn through structured academic research. They like to be guided to see the connection between ideas, the reasons why this is the case, and the theory behind the concept. Concrete sequential thinking style (AS) is a thinking style that has high reasoning ability. This child tends to be critical and analytical because he has a strong imagination. In general, it abstractly captures lessons or information and does not require concrete demonstrations. While, Abstract Random (AR), ie students with a dominant Abstract Random Mind Style (AR), learn best through unstructured group work. They like to talk, share thoughts, reflect on things, imagine, seek ideas, and make personal connections. Abstract Randomized Thinking Style (AR) is a thinking style that has the opinion that all life experiences are valuable lessons, in general, the way children learn this model is irregular and the schedule is very torturous for them, the lessons presented sequentially or systematically are not interesting for them. Concrete Random (CR), namely students with a dominant Concrete Random Mind Style (CR) that develops through practical work and open-ended. They tend to resist directions, time limits and directions. Usually, they want to work with their methods and timescales. Concrete random thinking style (CR) is a thinking style that is full of energy and fresh ideas, its ability to receive random lessons makes him a person full of new ideas. In general, these children learn more through their five senses and are not too interested in things that require abstract reasoning. Here are four combinations of thinking styles (Ginnis, 2008).

Table 1. Four Combinations of Thinking Styles (Tung, 2015)

Concrete Sequential	Abstract Sequential	Random Abstract	Concrete Random
Tenacious	Analytical	Sensitive	Fast
Traditional	Objectif	Full of mercy	By heart
Very careful	Knowledgeable	Quick to understand	Always curious
Stable	Thorough	Imaginative	Realistic
Reliable	Neat	Sentimental	Have creativity
Consistent Stick to the facts	Logical Calm down and be careful	Idealist	Innovative
Regular	Systematic	Spontaneous	Instinctive
"one by one and real"	"one by one and imaginative"	"spontaneous and imaginative"	"spontaneous and real"

There are two ways we respond to something, namely concrete and abstract perceptions (Tung, 2015). Perception concrete or real. Concrete perception makes children more quickly catch real and clear information directly through the five senses, namely sight, smell, touch, taste, and hearing. Children with concrete perceptions do not seek hidden meanings or try to connect ideas or concepts. Key phrase: "Things are what they are." While perception is abstract or invisible. Abstract perception allows children to quickly grasp something abstract/invisible and understand or believe what can not be seen really. When children use these abstract perceptions, they use their intuitive, intellectual abilities, and his imagination. Key phrase: "Things are not always what they seem."

The compilation is the way a person processes the information he receives in their brain. We arrange things in two ways: Sequential and Random (Tung, 2015). It concluded that the sequential arrangement method allows the child's mind to organize information sequentially, linearly, or step by step. Children who are the sequential type usually like the method of learning one by one in sequence. People who have strong sequential control abilities may prefer to have a plan and follow it, rather than rely on impulses. The key phrase: "Just follow the step-by-step". Whereas Random or Random. The random arrangement makes our mind organize information in chunks and without a certain sequence, such as starting in the middle or starting at the end of the section and returning to the beginning. The child who has random types usually prefers a spontaneous way of learning, not necessarily sequential. It's as if they don't have a particular plan. The key phrase: "The important thing is finished!".

3.5 Learning Style

Learning style is the best and fastest way of learning for each individual which is associated with various brain abilities. A person's ability to understand and absorb lessons is definitely at different levels. Some are fast and medium and some are very slow. Therefore, they often have to take different ways to understand the same information or lesson. Learning style is a typical way for students to learn (Winkel, 2005). Learning style is a way to use one's abilities. This is not an ability but a preference, then a learning style as an individual character and a consistent approach to organizing and processing information (Ginnis, 2008). The characteristics of the brain's abilities include: (1) how the learner stores and retrieves information quickly, thoroughly and efficiently; (2) how learners use it to solve problems; and (3) how learners use it to create ideas. Each individual has a unique learning and work style and each individual learning style is a combination of the three factors above (Dryden & Vos, 2001). In general, there are three learning styles, namely visual, auditory, and kinesthetic learning styles (Tung, 2015). Here is the description.

Learn by seeing (learn through seeing). This type of student prefers to learn through expressions and body language to fully understand the content of a particular lesson. It is easier for students to learn visually: see pictures and diagrams. This learning style is called the visual learning style (Dryden & Vos, 2001). They tend to sit in the centre of attention or at the front of the class to avoid visual obstructions (from the obstacles of other students). They get an idea and think more from Visual displays which include: diagrams, graphics, animated images, transparencies, videos, or information presentation tools. During class, visual learners better absorb information with a visual display. Characteristics of visual learners that can be seen, namely: (1) neat and orderly, (2) speaking quickly, (3) attaching importance to appearance, both in clothes and presentation, (4) usually not bothered by noise, (5) preferring reading rather than being read, (6) scribbling meaninglessly while talking on the phone or while studying, (7) preferring demonstrations to speeches, (8) often answering questions with short answers such as yes and no, (9) having trouble remembering verbal instructions unless they are written down, and often ask people to repeat them, and (10) remembers what is seen rather than what is heard (Stern, 2013).

Learn by listening (learn through listening). This type of student prefers to learn through lectures, oral lectures, discussions, talking about various things through question and answer, and listening to people about something. Auditory learners like to listen. This learning style is called the

auditory learning style. Learners with autistic styles usually do not like to read books or manuals, they prefer to ask questions to get information (Dryden & Vos, 2001). These students use the sense of hearing to interpret the meaning of the information obtained by paying attention to the intonation, tone of voice, speaking speed, and the nuances of the speaker's heart. Learners with a listening style will enjoy learning by reading texts, which are sounded aloud or using a recording device. Characteristics of auditory students that can be seen, namely (1) talking to themselves while working, (2) being easily distracted by noise, (3) moving their lips and saying what is written in a book while reading, (4) finding it difficult to write, but great in telling stories, (5) prefers oral jokes to comics, (6) speaks in a patterned rhythm, (7) learn by listening and remembering what is discussed rather than what is seen, (8) likes to talk, likes to discuss and explain things at length, and (9) can imitate colour, rhythm and tone of voice (Schopenhauer, 2012).

Learning by using motion (learn through tactile/kinesthetic). This type of learner prefers to learn through moving, doing, and touching (moving, doing, and touching). Tactile/kinesthetic learners: use the sense of taste (learners tactile) or move the body (kinesthetic). This learning style is called the haptic/kinesthetic learning style. They need to handle materials, write, draw, and engage in real experiences. They learn best by physical action—engaging in real experiences that can be applied directly in their lives (Dryden & Vos, 2001). Tactile/kinesthetic style learners prefer to learn through a direct motion approach, which is in contact with the physical world around them. They need motion as an activity for their learning exploration. Characteristics of kinesthetic learners that can be known, namely (1) speaking slowly, (2) responding to physical attention, (3) touching people to get their attention, (4) standing close when talking to people, (5) always physically oriented and moves a lot, (6) memorizes by walking and looking, (7) uses fingers as a guide when reading, (8) uses a lot of body cues, (9) has early development of large muscles, (10) has difficulty remembering maps unless he has been there, (11) his writing is probably bad, and (12) he cannot sit still for long (Locke, 2012).

Table 2. Various Learning Styles

Learning Style	Characteristics	Tips in Teaching
Visual	Seeing, reading	Teach with diagrams, graphics, animated images, transparencies, videos, or information presentation tools.
Auditory	Listening, talking	Questions and answers, teaching by paying attention to the intonation, tone of voice, speed of speech, and the mood of the speaker
Kinesthetic or tactical	move, work	Approaches with direct motion, in touch with the physical world around them

It concluded that learning style has the role important to influence students' learning. The implication for teachers is that teachers must analyze and serve the learning styles of each student. The teacher must be sure that each style is served regularly during the lesson. In preparing for learning, it is very important for teachers to always remember and pay attention to the individual learning styles of their students. Teachers need to be creative in developing learning models, especially the development of group work models for students who have similar learning styles. As a consequence, teachers need to prepare various types of tasks that are relevant to children's learning styles. Thus, learning will appear easier, especially for every child to learn.

3.6 Benefits of Learner Characteristic Analysis

It is so important to know the learning characteristics of students. Because the problem of recognizing the character of students is complex. So teachers need to understand this. Of course, professional teachers should analyze the characteristics of students. Because analyzing the character of students has several benefits, such as the following: (1) teachers can obtain information about the initial abilities of students as a basis for providing new and advanced material, (2) teachers can find out about the extent and types of student's learning experiences, this affects the ability of students to

learn. absorb students to the new material to be delivered, (3) the teacher can find out the social and family background of students. Covers the level of parental education, socioeconomic, emotional and mental so that teachers can present materials and methods more harmoniously and efficiently, (4) teachers can find out the level of growth and development and aspirations and needs of students, (5) know the level of mastery that has been obtained previous students (Lewiss, 2015).

So, it can be concluded that the introduction of student characteristics is very important for teachers. This can help them in providing treatment during the teaching and learning process. Teachers can make teaching plans according to the characteristics of students. Moreover, the teaching method must not only be in accordance with the learning objectives, but also must be adapted to the characteristics of the students.

3.7 Learning

In the Law of the Republic of Indonesia Number 20 of 2003 concerning the National Education System article 1 paragraph 20 it is stated that learning is a process of interaction between students and educators and learning resources in a learning environment. Learning is a human effort carried out to help facilitate the learning of others (Setyosari, 2001). Learning can also be interpreted as a series of external events that are designed to influence learning processes so that they can improve learning (Setyosari, 2001). Some state that learning is a process organized by teachers to teach students how to learn, how to learn to acquire and process knowledge, skills, and attitudes (Dimiyati & Mudjiono, 2009). Learning is a structured combination that includes human elements, materials, facilities, equipment, and procedures that influence each other to achieve learning objectives (Hamalik, 2007).

From the various opinions above, it can be concluded that learning is a deliberate effort to regulate one's environment which causes changes in behaviour. In addition, learning is a process of interaction that occurs between educators and students in a learning environment to achieve learning goals. Learning must be well supported by all elements of learning which include educators, students, and also the learning environment. Learning can also be interpreted that learning is external which is deliberately planned by a supervisor in his field.

3.8 Implications of Variety of Learner Characteristics in Learning

The initial abilities of students must also be considered in the learning process (Felder & Brent, 2005). Initial ability is strongly influenced by individual experiences in interacting with their environment. Therefore, environmental differences may result in differences in initial abilities. Differences in initial abilities result in differences in the ability to elaborate new information to build cognitive structures (Williams, Myerson, & Hale, 2008). The teacher's learning design that will be applied learning should be able to take advantage of today's technology so that the learning process carried out becomes effective (Maimun & Hakim, 2021). Blended learning is a form of learning that mixes face-to-face, offline, and online in delivering material (Masgumelar & Mustafa, 2021). In addition, the material presented in the learning that has been made by the teacher must have implications for changes in noble attitudes in addition to the purpose of increasing knowledge and skills (Syamsussabri, Suhadi, & Sueb, 2019). In increasing the learning time of students who have a unique variety, educators need to provide learning services outside of school hours by giving students access to online material that is not limited by space and time, so that learning becomes effective, efficient, innovative and fun (Khusniyah & Hakim, 2019).

Apart from educators, as students, they also need to detect their strengths and weaknesses in learning through their modalities. This can function to optimize the abilities possessed and can minimize weaknesses and anticipate things that become obstacles to the learner himself (Şener & Çokçalışkan, 2018). Learning is not only oriented toward academic ability but also toward multiple intelligences accompanied by a positive attitude that needs to be the target of learning outcomes (Winarti, Yuanita, & Nur, 2019). The results of the study reveal that appropriate and meaningful learning experiences influence the formation of multiple intelligences for learners (Hajhashemi,

Caltabiano, Anderson, & Tabibzadeh, 2018). Each individual tends to the type of plural intelligence, which gives each learner their uniqueness in absorbing information material in the learning.

In this case, the teacher must be able to create a learning model that can accommodate the diversity of student learning characteristics (Montgomery & Groat, 1998). Because without this, it is a big problem for students who do not get educational services that are on their learning characteristics. Because psychology with its various branches has identified so many variables that indicate individual differences and affect the learning process such as intelligence, giftedness, cognitive style, thinking style, adoption power, and initial ability.

4. CONCLUSION

The conclusion of this article is as follows. Characteristics of learners can be defined as individual mental factors that can affect learning activities. Multiple intelligence is provide a special category of intelligence directly for each individual who has several different intellectual potentials and talents which include linguistic, logical-mathematical, bodily-kinesthetic, spatial, musical, interpersonal, intrapersonal, Naturalist, Existential, and Gustatory/Olfactory Intelligence. . Intelligence contains the same elements as those intended in the term intellect, which describes a person's ability to think and/or act which is classified, namely: idiot, imbecile, Maron, stupid, low normal, medium normal, high normal, intelligent, very intelligent, and geniuses. This thinking style presents an organized way to consider how the mind works which divides the brain into two kinds, firstly concrete and abstract perception, a secondly sequential and random arrangement so that a combination of thinking styles emerges which include: (1) concrete sequential thinking style, (2) abstract sequential thinking, concrete random thinking style, (4) abstract random thinking style. Learning style is a typical way for students to learn which consists of: visual, auditory, and kinesthetic. The benefits of analyzing the character of students include: (1) the basis for compiling material based on initial abilities, (2) knowing the absorption capacity of students, (3) knowing the social and family backgrounds of students, (4) knowing the level of growth and development, (5) knowing the level of previous mastery. Learning is a process of interaction that occurs between educators and students in a learning environment to achieve learning objectives. The implication of learner characteristics in learning can create learning models that can accommodate the diversity of student learning characteristics.

Suggestions for teachers or educators, it is necessary to look at the various kinds of learning characteristics and the level of intelligence of students who are so diverse, it shows that a teacher it very difficult to convey material to students. Because the different characteristics of students affect their level of understanding and how to receive material from the teacher. Here a teacher must be able to create a learning model that can accommodate all types of student characteristics. To create a learning atmosphere in effective and efficient learning and achieve all learning objectives. Further researchers can use the results of this study to conduct further research related to student achievement.

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