

Details of Module and its structure

Module Detail	
Subject Name	Education
Course Name	Understanding the Learner,
Course Code	EDU502
Module Name/Title	<i>Individual Differences in Learner: individual differences in psycho-motor skills, personality, learning style and cognition preferences.</i>
Module Code	UTL006
Pre-requisites
Learning Outcome	<p>After going through this lesson, the learners will be able to</p> <ul style="list-style-type: none"> • Identify Individual differences among learners and can differentiate their personalities. • Analyse Cognitive preferences that different learners possess and relate their Different learning styles.
Keywords	Individual differences, personality, cognition, learning styles, psychomotor skills

2. Development Team

Role	Name	Affiliation
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1. Individual Differences in Learners: Meaning and Definition

There is endless diversity in the creatures of the world. Dissimilarity is the principal of nature. You must have observed infinite deviations and differences in the different things of the world. Let us first think about the foremost important thing of the earth; water. Do you think it tastes the same everywhere in the world? The quality and features of water vary from place to place and region to region. Also, this diversification is observed in fruits and vegetables we eat and the flowers that blossom. There are countless insects, flowers, birds and animals in the world. While there are some characteristics fall common that help us to group living and non-living things in in one class or category also known as spices that separated them from others. But you cannot say that the spices in same group are alike in every aspect. This is where individual differences lie. You are welcome to the fascinating world of individual differences!

Individual differences become more intense and remarkable when it comes to human beings. As a part of well-established practice in the field of psychology, the study of individual differences has a history for more than a century. It is often said that no two individuals are exact duplicate. They differ in size, height, color of the skin, body weight, appearance, speed of reaction strength intelligence, interests, learning habits motor abilities, achievement, attitude, aptitude and so on. The list is never-ending. Therefore, the job of psychology is to identify and understand the uniqueness of individuals and job of educational psychology is to provide appropriate education to all the individuals according to their divergency.

All the children are different in one or the other way. Some learn quickly and others are quite slow in acquisition, some children can remember well and other forget easily. The success of learners at school depends upon numerous factors such as their background experiences, their home situations, physical health, their mental level and their learning habits. Remember, when you were a child of age 13, you made friends with different children at school. Some of your friends were always winners and few of them stood towards losers' side despite of same training, practice and exposure to games.



Picture 1.1 *How learners of same age differ uniquely!*

Try to recall that how you are different from your siblings even you are born of the same parents. Even the identical twins are not the same as their counterparts. Every one of us is unique. Think about yourself. You are not the same person as you were 5 years back. Take out your old photograph and you can see the difference clearly.

When we talk about how the children of same age often differ from one another perhaps in the ways that reflect their behavior, personality, intelligence, creativity, skills etcetera, we are talking about individual differences. It encompasses several observable and non-observable traits of learners which signifies key foundations of variations in behavior. Thus, individual differences in learners can be defined as the variations among and within children in regard to a single characteristic or number of characteristics. These differences enable them to stand out uniquely in their totality from other children. The term individual difference meant to capture the intuition that different learners may approach for the same task in different ways.

Let us take the following examples for instance

- Amit is 14 years old, always hyper active in the class never concentrates, interested in playball, have quite a few friends. He always prefers to be with friends while studying or reading or doing other activities at school.
- Vanished is also 14 years old. He always remains clam in the class and studies hard to get good scores. He always sits alone in the class and does not have friends. He does not show interest in any game. And dislikes talking to strangers. He remains close to his family only.

Now, there are several assumptions underlying the above examples. First, we observe that children of same age and gender have different interests (e.g. playing and meeting people), Secondly, the interests they possess determines their usual behavior that makes their personality. Thirdly learners are aware about what they like or dislike. Also, learners tend to act in a consistent manner and there are specific patterns of behavior.

Till now you know about the basic individual differences. In this next section we will discuss how learners differ in their personality.

2. Individual Differences in Personality

In a layman language, personality is meant by the outer appearance of an individual; how one wears clothes, how they comb their hair, the way of talking to other persons and some other factors. But according to psychology, personality is a more complex phenomenon. The scientific approach to study individual differences cannot set up without proper definition of personality. The root of the word personality is found in Latin called '*Persona*' which means '*Mask*'. It also originates from the word '*person*'. Therefore, personality may be referred to the individual's thoughts and feelings often projected by putting on the mask of behavior.

The word personality often used for several ideas. Let us take up few examples.

- One of my friends is very beautiful. She always wears nice clothes that suit her. her style of walking always impresses me. She always talks meaningful. She comes from a well settled family. I always say that she has a pleasing personality.
- Marlin, my colleague in college is very intelligent but he doesn't know how to carry himself. He doesn't have a nice body language and he always treat other

badly. He also comes from a well settled family. Everybody in the college say that he doesn't have a nice personality.

In above examples, both persons have different personalities and their personalities have been influenced by several factors like family background, intelligence, way of talking, interests, their upbringing and family environments even the experiences they have faced in life. Learners in a classroom come from diverse backgrounds. Their personality has initially and partially been developed when they enter into the class first time. Personality of the learner depends upon several factors. Let us discuss a few factors of personality of a learner in a classroom.



Picture 1.2 *Different personalities of learners*

Every human being seems to be same with two eyes and ears, one nose, two pairs of limbs, tongue and other internal and external organs, but still we are different from every other individual. People have similar appearance with their parents' grandparents and siblings as compared to others while they are equally different from their parents, ancestors and siblings. These similarities as well as dissimilarities are determined by heredity of an individual. A person's heredity consists of all the constructions, physical features, aptitudes and capacities derived from parents.

The atmosphere where the child lives after the birth determines most characteristics of the child's personality. In a classroom, children come from separate environments. Their socio-economic status, culture, physiological environment affects each and every aspect of child's personality. These external environmental influences are available each and every moment and are quite different in the case of each child. For instance, bad company of a child at school may influence his/her personality adversely.

There are several other types of students' personality teachers find in the classroom. Learners with extrovert personality type love to interact energetically with others. They also like to share their ideas and work with their mates. They try to engage themselves in group work because they feel that team work and bring better output.

However, introvert personalities are some how of shy types. They process information and ideas in their own minds and don't want to share with anyone. Their strength is self-sufficiency and they love that kind of work which requires individuality and independence. Some learners take more interest in theories and assumptions. They often find answers by making good guesses and learn more effectively through their deep insight.

It would be impossible to give everyone the individual attention to so many diverse personalities in the classroom. However, this does not mean the educator cannot take special interests in certain students who could benefit from being a bit more centered. The key ingredients with helping balance all personality types is encouragement, understanding, and a structure of rules.

3. Individual Differences in Learning styles

There is a close connection between a learner's personality and his/ her learning style. A learner's personality determines the ways a learner controls his/ her emotions and feelings during the learning process. The degree to which learners achieve success at school depends upon how they prefer to learn. Many researches have proved that education system is succeeding with a limited number of students and rest of them are lacking behind in their success at school. It is important to make learning and instruction more responsive to the needs of individual learners by paying attention to the preferred learning style of the student. Teachers should modify their teaching style to match students learning style because each learner have their different style of learning.



Picture 3 & 4: *Different styles of learning of children*

You must have noticed that in your childhood, one or two school subjects found to be easy and interesting as compared to others. When student's learning style gets matched with the teaching style of teacher then success rate of achievement uplifts. Every child is different in acquiring knowledge in his/her own style. Learners used different style of learning for grasping and understanding information so that they can reflect upon it later. Few learning styles are given below:

3.1. Visual

In this learning style, learners use pictures images and other spatial understanding to learn. When you see something, you can recall it for longer time. This is a unique

style of learning which learners use at different stages of education in different subjects.

3.2. Aural

In this learning style, students' preferences lean towards auditory signals and they prefer using sound and signals. I can remember when I was a student of elementary school. I used to listen to songs while doing mathematical problems. That helped me to solve the question quickly and accurately.

3.3. Linguistic (Verbal)

Here, students prefer using words both in speech and writing. They learn best by writing the task again and again or by reading for different sources.

3.4. Kinesthetic (physical)

It can also be referred to experiential learning style where learner prefer to use sense of touch, hands and body to learn.

3.5. Logical

When presentation of logic helps the most to make learning better. In this learning style, kids use logic reasoning and systems.

3.6. Social

Most of the times, extrovert personality type learners use to learn in groups or teams. When students learn while interacting with others and sharing their ideas in groups, it helps them in better understanding and retention.

3.7. Solitary

When independence is the learning style. Students use to learn in solitude with no disturbance. He/she shares ideas within. Self-study is the best suitable learning style in this context.

Your students will most likely not possess a single learning style, but they can have a pattern of different learning styles. For instance, a student, whose learning style is verbal may also be very social kind of learner but prefer to learn difficult subjects in solitaire. Therefore, your job as teacher is to use appropriate technique for teaching to cope up with the learning styles of your learners.

4. Individual Differences in Cognitive Preferences

Different level of intellect constitutes student diversity. This is another major area of educational psychology with main concern with the performance of the learners (at school, college or university). This area commonly refers to as cognition/intellectual ability. To some extent, explaining the notion of cognition may seem irrelevant since there is significant overlap between lay and expert opinions: both believe that certain mental or psychological processes account for dissimilarities in performance, and that these differences can be affected by biological as well as environmental factors. However, there is less agreement on how these differences can be measured, which abilities are more important, and whether people who score high on some ability may score low on others. Despite these unresolved issues, the idea that some individuals are brighter than others have always been debatable issue in human society and is reflected in the number of ways. There are difference types of cognitive preferences adopted by the learners in the classroom. Let us discuss.

4.1. Ability to think and learn

The ability to learn facts and skills and apply them, especially when this ability is highly developed.

4.2. Creativity

The ability to think in a divergent way especially choosing a different way to find the solution of the problem.

4.3. Problem Solving

Making tireless efforts to reach at a solution of a problem by using logical connotations and assumptions.

4.4. Ability to Analyze

When learner breaks up the information into smaller parts for better understanding of each part to find solution.

4.5. Ability to Evaluate

When a learner reaches at level where he possesses the ability to judge the value of information and ideas.

If a pupil has a cognitive style that is similar to that of his/her teacher, the chances are improved that the pupil will have an enhanced learning experience. In the same manner, team members who possess similar cognitive styles likely feel more positive about their participation with the team. While matching cognitive styles may make participants feel more comfortable when working with one another, this alone cannot guarantee the success of the outcome.

5. Individual Differences in Psycho-Motor Skills

Psychomotor skills and learning motivate some of the most important human activities, contributing to the full spectrum of work, play, creativity, love, and the survival of the individuals. the relationship between cognitive functions and physical movement. Psychomotor learning is demonstrated by physical skills such as movement, coordination, manipulation, strength, speed and actions which demonstrate the fine motor skills, such as use of precision instruments or tools. Behavioral examples include driving a car, throwing and catching a ball, and playing on a musical instrument. In psychomotor learning research, attention is given to the learning of coordinated activity involving the arms, hands, fingers, and feet, while verbal processes are not emphasized.

Learners in educational settings use different psychomotor skills and therefore each one is different from other. Some students have beautiful handwriting as there are few with disastrous hand writing skills. Even the science and mathematical laboratories, learner learn at various speed using different tools. Few students can precisely and easily handle all the equipment and can work on them accurately and other always need help. Therefore, each and every child has dissimilar psychomotor abilities and teaching should be planned accordingly. There are several factors that influence psychomotor skills of individual which includes amount of practice they do with a particular equipment or tool, complexity of the task, distribution of work, motive-incentive conditions and last but not the least the environmental factors.

Now, you must understand as a teacher that providing instruction according to the differential psychomotor abilities is extremely essential in a classroom for the holistic

development of the child so that he/she can acquire the skills and education at optimum level.

6. Summary

Students in any classroom will be divergent in many ways mainly in their personalities, intelligence, home environment, gender, learning styles, study habits, reaction times, creativity, thinking, skills and the list is never ending. It is responsibility of the teacher to cope up with this diversification by providing the best suitable learning environment for each and every child. You should remember that it is a difficult task to address such a big number of divergent learners with a single teaching method. But you must give your best as a teacher to provide individualized learning to each learner in your classroom.

EDU502

UTL002

Quadrant-III

**Learn More / Web Resources / Supplementary
Materials**

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EDU502

Understanding Learner

UTL002

Quadrant-IV

Self-Assessment

Description: In self-assessment Question No. 01 to 08 consist of multiple choice questions in which learners are required to select the correct one out of the four alternatives and Question No. 09 to 13 has five statements in which learner has to identify about true/false statements

1. To cope up with the diverse learners in the classroom, teacher should prefer to do which of the following things
 - a) Amend Pedagogy According to different needs
 - b) Ask learner to go to library for independent learning
 - c) Ask other classmates to teach
 - d) All of the above
2. Which of the following is not one of the major contributors in individual differences in classroom?
 - a) Aspects of Personality
 - b) Cognitive Style
 - c) Teaching style
 - d) Learning style
3. A child in the classroom wants individuality and independence in his/her work. What type of personality does he/she have?
 - a) Extroversion type
 - b) Introversion type
 - c) Neuroticism type
 - d) Stable type
4. In your classroom, you noticed that a child is performing better than ever before because you started teaching him using pictures. Which learning style is he following?
 - a) Aural
 - b) Kinesthetic
 - c) Visual
 - d) Verbal
5. In which of the following learning style, a child's achievement improves when he/she studies while listening to music?

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- a) Aural
 - b) Kinesthetic
 - c) Logical
 - d) Social
- 6.** Which type of learners prefer to learn in a team or group while interacting with others and sharing ideas?
- a) Introverts
 - b) Extroverts
 - c) Optimists
 - d) Anxious
- 7.** Breaking up the information into tiny bits for a better understanding, learner applies which cognitive ability?
- a) Creativity
 - b) Problem solving
 - c) Evaluation
 - d) Analysis
- 8.** In psychomotor learning research, which of the following has been given emphasis?
- a) Verbal Processes
 - b) Cognitive Preference
 - c) Personality Style
 - d) Co-ordinated Activities
- 9.** Every aspect of child's personality is affected by their socio-economic status, culture and physiological environment. ()
- 10.** During learning process, the controls over emotions and feelings is independent of personality of the learner. ()
- 11.** Each and every learner possesses a single learning style. ()
- 12.** Mental and psychological dissimilarities solely affected by biological factors. ()
- 13.** To have an enhanced learning experience, it is beneficial to have a learning style matched with the style of teaching. ()