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FACTORS THAT AFFECT LEARNING - AN INTRODUCTION
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Learning is a part cognitive and part social process. It is cognitive because it involves attention, perception, reasoning, analysing, making interpretations, and eventually giving meaning to the observed phenomena. Learning is also social process because we as individual live in a society and therefore are subjected to feeling and experiences of the world we interact and therefore these experiences influence our ideas, concepts and understanding of the world.

Every individual is unique and we have differed greatly in our capacity and interest in learning. If we look at the individuals in our home, each one has unique ability. While one child is good at academics and achieve high marks/grades other child may be good at sports and winning gold medals at all sports and games. Even if we check our own abilities we are good at doing some tasks extremely well and poor at performing some other tasks.

My wife is extremely good at cooking, tailoring, coordinating, nutrition, planning and running the house and taking care of children's education. She is very poor in mathematics, and finance management. All these skills require cognitive skills, like attention, reasoning and analysing. Why is it so? What could be the reasons and why individuals differ with respect to what they learn and how they learn? Let us see some factors that affect individual learning.

Learning is influenced and mediated largely by two categories of factors: Personal and Environmental. Personal factors are such as motivation, ability, and interests. Environmental factors are like societal, economic and cultural. These two factors operate in the common system. The environment provides the context for both the personal and environmental factors to exist.

Let us understand these factors in detail:

Intelligence: There is no universally accepted definition for Intelligence. So I define Intelligence in operations terms. It is the capacity or an ability for problem solving, thinking, reasoning, relating to others dealing with emotions, developing interests, sense of right and wrong and living in consonance with our environment.

Of all the intelligence theorists Howard Gardner's theory gained wide acceptance. He defined Intelligence as the capacity to solve problems and to create products that are valued in society (Gardner & Hatch, 1989). He suggested that humans have a number of different intelligences that operate from different areas of the brain and thus the notion of a single intelligence is faulty. He also stated that different individuals have different combinations of the many intelligences. Gardner defined seven different intelligences, they are Linguistic, Logical-

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mathematical, Musical, Spatial, Bodily-kinaesthetic, Interpersonal and Intra personal Intelligence.

Aptitude: Aptitude is the natural ability of a person to do a task. Some children are good at mathematics naturally while some others must put in lot of hard work to perform well in mathematics. Some children have a natural ability to drawing and painting while some others are very good in sports and games. Aptitude test is used to understand a person's ability to do a particular job. Aptitude tests are also used to find out a child's ability to perform in number crunching, verbal reasoning, spatial skills and then decide which of these he/she will learn easily. If a child has demonstrated more aptitude in mathematics then she/he will be suitable for engineering education and similarly if a child has demonstrated high score in spatial ability then he/she may be suitable for a career in architecture, or for civil engineering.

Goals: Setting goals will give us direction. The type of goals that we set influences our motivation. If we set immediate goals like passing the examination, then our learning is temporary and we immediately forget everything after the examination. If a student sets long term goals like, becoming a doctor, or an IAS officer then it helps to reach newer heights and contributes positively to life. Goals are directly proportional to the improvement in learning and performance. It helps to direct our attention to the learning on hand, it increases our persistence at the learning on hand and helps is to adopt new different strategies when old strategies fail.

There are three types of goal orientations which will help us understand students learning and performance. They are Learning goals, performance goals and work avoidance. A person with learning goal will have an intention to understand a concept, or issue no matter what the performance is, which means that the mistakes one makes are not important, because the intention is to learn or improve.

Performance goals are primarily to appear competent in the eyes of others. Learners who set performance goals always strive to win and becoming topper and outsmart other students.

There will be student who neither want to learn nor outshine others, they want to avoid work. These student's complete studies quickly without much effort. These students are work avoidance learners.

Goals are the future vision that the student constructs himself which motivates him to learn and maintain the persistence to achieve that goal.

Interests: Interest is derived from the need structure of an individual. For example: I have a friend who has a strong social need such as affiliation. He always directs his efforts to meet friends which will enable him to meet his needs such as meeting people, friends and visit

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parties and functions. Every individual is different as everyone's need structure vary. There will be a teenager who has need for play, and may learn much through play approach. Another teenager have a need to face challenges, and mathematics may be the subject that will satisfy his need to overcome challenges.

Readiness to learn and maturation: There is always an appropriate time for every individual to learn a specific skill with efficiency. This appropriate time comes only when the physical and intellectual aspects of development have advanced enough to enable one to perceive the problem and solve it. Example: If a teenager is taught project management skills he may not be able to understand the subject as the neural aspects of development have not advanced enough. Maturation is described as relative permanent change in an individual – be it cognitive, emotional or physical that happens through biological ageing. Example: If we teach a child decision making skills at the age of 10 the attempt becomes futile as the child does not have the adequate level of readiness. Some children who does not score well in exams are probably not adequately matured and lack the readiness to learn.

Motivation: Motivation is an internal state that arouses and maintains behaviour. There are two types of motivation, Intrinsic and Extrinsic motivation. Motivating a teenager means trying to encourage a teenager to use his/her inner resources, their sense of competence, self esteem and autonomy.

Self-Concept: (Includes self-esteem, self-image and self-efficacy): Self Esteem means a person's overall subjective evaluation of his own worth. The value a person places on himself.

Self Image: This refers to ones own perceptions about onself – what ones strengths and capabilities are and what ones weaknesses and limitations are. Example: "I am good at mathematics or English and awful at geography". This is a judgement that a person makes about himself after engaging with the subject over time.

Self Efficacy:This refers to a persons belief to get things done. This is about an individuals belief in his ability to succeed or accomplish a task.

Locus of Control: Locus of control refers to a persons belief about the cause of good or bad results in their life. Example: A student with high internal locus of control believes that their grades are determined by their efforts and abilities. These students change their study strategies as they find out their deficiencies. A student with high external locus of control believe that fate or chance primarily determine the results in their exams.

Level of Aspiration: Lever of aspiration refer to how far and where individuals set their goals and targets for achievement. It is determined by our past failures and success. Example: if success or failure is attributed to internal factors, success will lead to pride and high level of

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aspiration and learning. Failure will lead to setting low level of aspiration and learning. If an individual has a feeling that he has control over his own learning then he will be said to have a high level of aspiration, choosing to do more difficult tasks and putting more effort.

Learning Styles: Every Individual learns in a different way that is unique to him/her. Learning style is also sometimes called learning preferences. Learning style (preference) is also the way an individual processed information. Some students take deep processing approach, that is understand the deeper meaning and some other students take the surface processing approach, that is focus on memorizing.

Learning style (or preferences) can also be an individual's preference to use his/her senses. Example: Visual learner, Auditory learner or Kinaesthetic learner.

Another pattern of learning style is the field dependence versus filed independence. Field independent learner tend to separate details from the surrounding context whereas the field dependence learners have the inability to separate the detail from the information surrounding it. Field independent learner do not depend on teachers for support.

Attitudes: One may think that rural India is where you find the true traditional dressing and behaviour. This is a preconceived notion which we have and may be termed as attitude.

Attitudes are also born out of socialization. Our attitudes can be positive, negative or neutral. Example: When students have a positive attitude towards a subject, it implies that they like the subject and also try to do well in that subject and also to be liked by teachers.

Prejudice and stereotypes are closed related to attitudes which influence learning. Prejudice is a negative attitude towards anything and stereotype is a mindset which is readiness to react in a particular way to a stimulus.

Socio Cultural Factors: The social cultural environment in which the child grows has a high impact on the child's learning. For easy understanding we divide the socio-cultural factors into (A) Family (B) Neighbourhood and Community (C) Class, caste, religion and ethnicity.

Family is the first and most fundamental influence in the socialization process of the individual. It is the family that a child undergoes conscious, sub conscious and subliminal learning. It is within the family that the individual learns behaviours patterns for survival, social skills, attitudes, interpersonal skills, social norms, the do's and don'ts of his culture, acquires value orientation.

Neighbourhood and community: Many attitudes, beliefs, perceptions, habits, social roles are shaped directly or indirectly by our experiences with the persons in our neighbourhood.

Similarly, caste and religion also play a role in shaping our identity, attitudes, value orientation and achievement patterns.

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