

The Psychological Concept of Motivation in the field of Education

Motivated behaviors involve biological and psychological processes that have undergone evolution at numerous levels from individual molecules all the way to species-specific social organization and understanding them is a truly fascinating endeavor. Generally, motivation represents the yearning to accomplish a task, paired with the enthusiasm and determination to see it through. It acts as the driving force that propels an individual to take proactive steps and reach their goals and can be positive driving people to either take positive actions and make positive changes, or negative leading to negative actions or make negative changes. In the past, numerous hypotheses have been put out to try and make sense of what drives human with each theory providing insights into a certain facet of motivation leaving inevitably out others. Within the context of learning, motivation refers to the psychological factors that drive an individual to engage in the process of acquiring knowledge and skills and achieve their educational goals. Some of the motivation theories that can influence learning are the following:

The Instinct theory, which has been considered as a root for all motivation theories is a psychological theory that suggests that certain behaviors are innate or hard-wired into individuals and that these behaviors are triggered by specific stimuli or cues in the environment. The theory suggests that certain behaviors are not learned through experience but are instead pre-programmed into the individual's biology. Critics of the instinct theory argue that it is difficult to define an instinct clearly and objectively and that many behaviors that have been labeled as “instinctive” are the result of complex interactions between genes and the environment. In the academic context, the theory implies that certain behaviors may be driven by instinctual responses rather than acquired knowledge or conditioning.

The Arousal theory is a psychological theory introduced by Robert Yerkes and John Dillingham Dodson in 1908 suggesting that there is an optimal level of physiological or psychological arousal that is necessary for optimal performance on a given task. According to this theory, when an individual is too aroused (i.e., over-aroused), performance may suffer, while when the individual is not aroused enough (i.e., under-aroused), performance may also suffer. Arousal can be caused by a wide range of factors, including physiological processes such as the release of hormones, psychological factors such as stress or motivation, and environmental factors such as noise or temperature and based on an inverted-U shape relationship between performance and arousal, meaning that there is a point where high arousal levels lead to diminishing returns and that optimal performance will be achieved at moderate levels of arousal. The well-known version of this theory is the Yerkes-Dodson law, which states that as arousal level increases, performance will also increase up to a point, after which it will decrease. In learning an appropriate balance of excitement and calmness can enhance the ability to acquire and retain information.

The incentive theory, which was first proposed by a behaviorist, Clark Hull in 1943 who proposed that behavior is a function of drive, which is a physiological state that creates a need, and incentive, which is the positive or negative values of a particular situation. This theory explains how behavior is influenced by the presence or absence of incentives, or rewards suggesting that the magnitude and proximity of an incentive can influence behavior by increasing the perceived value of a particular action or outcome, which in turn increases the motivation to engage in that behavior. It further proposes that behavior is driven by an organism's attempt to maximize pleasure and minimize pain. Incentives can be positive or negative, they can be external, such as money, or internal, such as hunger or thirst. Incentive theory has been used to explain a wide range of behaviors, such as drug addiction, consumer choice, and work motivation. It has also been used to explain how rewards and punishments can influence behavior in educational and work settings.

The intrinsic theory of motivation suggests that individuals engage in certain behaviors or activities because they find them personally interesting or satisfying, rather than because of the potential external rewards or pressures. Intrinsic motivation is considered to be self-driven and is characterized by feelings of enjoyment, interest, and satisfaction in the activity itself. According to Deci, who originally put out the concept of intrinsic motivation in the 1970s, people's motivation levels are at their highest

when they can fulfill their basic psychological requirements. Human beings have a desire for autonomy, competence, and relatedness. The need for autonomy relates to the desire to direct one's own life and make decisions, the need for competence to the conviction that one possesses the skills necessary for success, and the need for relatedness to the satisfaction that comes from having meaningful relationships with others. Intrinsic motivation is considered to be a more sustainable and long-term form of motivation, as it is driven by personal interests and values, rather than external rewards that can also play a role in the process of motivation, depending on the context and the individual. In learning, the intrinsic theory of motivation suggests that people are naturally driven to learn when they find the subject matter engaging and personally meaningful urging educators find ways to enhance motivation by making the content relevant and tapping into students' inherent curiosity and interest.

The Extrinsic theory suggests that individuals engage in certain behaviors or activities because of the potential external rewards or pressures, rather than because they find them personally interesting or satisfying. Extrinsic motivation is considered to be externally driven and is characterized by the presence of external factors such as grades, money, or praise that serve as incentives to engage in a behavior or activity. It can take many forms, such as rewards, like receiving a prize for completing a task, or punishment, such as being given a penalty for not completing a task. The theory suggests that individuals engage in activities in order to earn rewards or avoid punishments. Studies suggest that while extrinsic rewards can be effective in increasing motivation and performance in the short term, they may have negative effects on motivation and performance in the long term, as they can reduce the sense of autonomy and interest in the activity. In education, this implies that students may be motivated to learn when they are offered tangible rewards or avoid negative consequences, but the challenge lies in maintaining long-term engagement and fostering genuine interest in the subject matter.

The attribution theory of motivation examines the effects of people's beliefs about the nature of causation on their motivation. Attribution theory suggests that people tend to attribute the cause of an event to either internal or external factors and that these attributions can influence their motivation to engage in similar behaviors in the future. To attribute an event to internal variables, like one's own abilities or the amount of work put in, is called an internal attribution, for example, when someone excels in a sports competition, they may attribute their success to their own skills, dedication, or hard work. Similarly, attributing an event to external elements, like chance or the actions of others, is called an external attribution for example, if a learner performs poorly on a test, they might attribute it to the difficulty of the questions rather than their own lack of preparation (Graham, 1991; Graham, 2020; Weiner, 2010). The theory is also closely related to self-esteem and self-concept as it helps to understand how people evaluate themselves and how that evaluation affects their motivation. In learning, when learners attribute their successes to their efforts or strategies and view failures as opportunities for growth, they are more likely to remain motivated and persist in their educational pursuits.

According to the **expectancy theory of motivation**, people are prompted to act, if they think doing so will bring about positive results. The theory suggests that expectancy, instrumentality, and valence are the three most important components of expectancy motivation. The expectancy is that hard work will provide positive results. The idea that one's efforts should be rewarded with the best possible results is known as "instrumentality." The term "valence" is used to describe the significance of an outcome to a person (Chopra, 2019; Fudge et al., 1999; Isaac et al., 2013). Expectancy theory was developed by Victor Vroom in the 1960s, and it suggests that motivation is a function of expectancy, instrumentality, and valence (Parijat & Bagga, 2014). Based on the theory, an individual will be motivated to engage in a behavior if they believe that: i). their effort will lead to high performance (expectancy), ii). high performance will lead to the desired outcomes (instrumentality), and iii). the desired outcomes are valuable or important to them (valence). The theory also proposes that people may be motivated to engage in different behaviors depending on the strength of their expectancies, the perceived instrumentality, and the valence of the outcomes. Expectancy theory in the context of learning posits that learners are motivated when they believe that their efforts will lead to successful outcomes and that these outcomes are personally valuable. Learners who expect their hard work will

result in positive educational achievements are more likely to remain engaged and committed to their learning goals.

The ARCS Model of Motivation is a framework for designing and evaluating instructional materials, which stands for Attention, Relevance, Confidence, and Satisfaction. The model was developed by John Keller in the 1980s and is based on the idea that motivation is a key factor in learning and that instructional materials should be designed to meet the motivational needs of learners (Keller, 1987). The model consists of the following four components:

- ✓ **Relevance:** The materials must be relevant to the learners' needs, interests, and goals, and must be presented in a way that connects to the learners' previous knowledge and experiences.
- ✓ **Confidence:** The materials must provide the learners with a sense of confidence and self-efficacy by providing clear instructions, the appropriate level of difficulty, and feedback.
- ✓ **Satisfaction:** The materials must provide the learners with a sense of satisfaction and achievement by providing opportunities for success, problem-solving, and creativity. The model is considered as a problem-solving tool that can help educators and designers to assess the motivational appeal of the materials they are using or planning to use and make improvements if necessary.

The **self-determination theory (SDT) of motivation** explains how human behavior is influenced by the degree to which the behavior is autonomous or self-determined. The theory proposes that behavior that is autonomous or self-determined is more likely to be sustained over time and to lead to greater well-being and personal growth than behavior that is controlled by external factors or the individual's perceived lack of choice. SDT was developed by Deci and Ryan in the 1980s as an extension of Deci's earlier work on intrinsic motivation. The simplified version of SDT, consists of its three major elements namely intrinsic, extrinsic, and amotivation suggesting that people have three innate psychological needs: autonomy, competence, and relatedness, that must be met in order to maintain optimal motivation. According to SDT, the level of autonomy in behavior is influenced by the degree to which the behavior is in line with an individual's values, goals, and needs. The theory distinguishes between different types of motivation namely autonomous motivation, controlled motivation, and amotivation. *Autonomous motivation* refers to behavior that is in line with an individual's values, goals, and needs and is perceived as self-determined. *Controlled motivation* refers to behavior that is performed because of external rewards or to avoid punishment. *Amotivation* refers to the absence of motivation. It happens when an individual does not have a reason or belief that behavior or activity will lead to the desired outcome or goal. The theory also suggests that when people feel autonomous and competent in their behavior, they are more likely to experience positive outcomes such as personal growth, well-being, and optimal performance. Research suggests that promoting autonomy-supportive environments and behaviors can lead to better outcomes, such as improved performance and satisfaction.

Finally, **social cognitive theory (SCT) of motivation** suggests that behavior is influenced by the interaction between personal, behavioral, and environmental factors. Being an extension of Bandura's earlier work on social learning theory (SLT), which proposed that individuals learn from observing and imitating the behaviors of others, SCT suggests that motivation is influenced by the interaction between personal, behavioral, and environmental factors. According to SCT, motivation is driven by the individual's goals and expectations and is influenced by the perceived outcomes of the behavior, the individual's self-efficacy (i.e., the belief in one's ability to perform the behavior), and the individual's perceived control over the situation. The theory also suggests that people are more likely to engage in behavior that they perceive as leading to desired outcomes when they: i). have a high level of self-efficacy, ii). perceive that the behavior is under their control, and iii). perceive that the behavior is consistent with their goals and values. In the classroom, teachers can foster both intrinsic and extrinsic motivation by providing stimulating learning activities, allowing learners to pursue their interests, and offering clear goals and expectations.

(Source: Acta Psychologica, 244)

Exercise 1: Read the text and answer the following questions:

1. According to the arousal theory, what happens to performance when arousal levels are either too low or too high?

Performance decreases when arousal is too low or too high; optimal performance occurs at moderate arousal levels.

2. What are the three basic psychological needs identified in intrinsic motivation (and later expanded in Self-Determination Theory)?

Autonomy, competence, and relatedness.

3. How does attribution theory explain the impact of internal vs. external attributions on a learner's motivation?

Internal attributions (e.g., effort or ability) increase motivation by encouraging responsibility and growth, while external attributions (e.g., luck or task difficulty) can reduce motivation by shifting responsibility away from the learner.

4. In expectancy theory, what are the three components that determine whether a person will be motivated to perform a task?

Expectancy (effort leads to performance), instrumentality (performance leads to outcomes), and valence (value of the outcome).

5. What does the ARCS model propose educators should design for in instructional materials to enhance learner motivation?

Attention, relevance, confidence, and satisfaction.

Exercise 2: Choose the correct answer:

1. Which of the following best defines motivation as described in the passage?

- A. A biological process that only relates to instinctive behavior
- B. The desire and effort to accomplish a goal or task**
- C. The process of eliminating negative emotions
- D. A psychological state independent of external stimuli

2. According to the Instinct Theory, behavior is primarily driven by:

- A. Learned experiences and conditioning
- B. Individual preferences shaped by environment
- C. Innate, hard-wired tendencies triggered by stimuli**
- D. External rewards and punishments

3. The Arousal Theory suggests that optimal performance occurs when:

- A. Arousal levels are as high as possible
- B. Arousal levels are at a moderate, balanced point**
- C. The individual is under minimal stress
- D. The person is highly motivated regardless of arousal level

4. The Incentive Theory explains behavior as a result of:

- A. Internal instincts and drives alone
- B. Attempts to maximize pleasure and minimize pain**
- C. The internal satisfaction of curiosity
- D. Social interactions and observation

5. According to the Intrinsic Theory, individuals are motivated to learn when:

- A. They expect rewards such as grades or praise
- B. They are forced by external pressures
- C. The subject matter is personally meaningful and interesting**
- D. They are rewarded materially

6. The Extrinsic Theory of motivation is characterized by:

- A. Self-driven behavior based on curiosity
- B. Behavior influenced by external rewards or punishments**
- C. Complete independence from environmental factors
- D. A desire for self-fulfillment and autonomy

7. In Attribution Theory, when a learner attributes success to personal effort, it is called:

- A. External attribution
- B. Situational attribution
- C. Chance-based attribution
- D. Internal attribution**

8. Expectancy Theory proposes that motivation depends on:

- A. Genetics and evolutionary tendencies
- B. The strength of habits formed through reinforcement
- C. Expectancy, instrumentality, and valence**
- D. Levels of arousal and stress management

9. In the ARCS model, the “Confidence” component refers to:

- A. Connecting learning materials to students’ interests
- B. Providing feedback and an appropriate level of challenge**
- C. Ensuring lessons are entertaining
- D. Giving students autonomy in all tasks

10. According to Social Cognitive Theory (SCT), motivation is influenced by:

- A. Only individual goals
- B. The interaction of personal, behavioral, and environmental factors**
- C. Purely external reinforcements
- D. The absence of social influence

Exercise 3: Sort the following words into the correct motivation theory category.

reward, stress, curiosity, self-efficacy, punishment, autonomy, biological drive, feedback,
 competence, over-arousal, goal value, modeling

Arousal Theory	Incentive Theory	SDT	SCT	Expectancy Theory	Instinct Theory	Intrinsic Motivation
stress over-arousal	reward punishment	autonomy competence	self-efficacy modeling	goal value	biological drive	curiosity feedback

Exercise 4: Match the following words with their definitions.

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| 1. Arousal E | A. A person’s belief in their ability to successfully perform a task |
| 2. Intrinsic motivation C | B. An external or internal reward or stimulus that motivates behavior |
| 3. Attribution F | C. The internal desire to engage in an activity because it is interesting or enjoyable |
| 4. Valence D | D. The emotional value or importance a person places on an expected outcome |
| 5. Self-efficacy A | E. The level of physical or psychological alertness or activation |
| 6. Autonomy G | F. The explanations people make about the causes of behavior or events |
| 7. Incentive B | G. The need to feel in control of one’s choices and actions |