Review Article

A Glimpse at Student Motivation

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Abstract

Motivation is a psychological force that moves a person toward some kind of action. Implicit in motivation is movement in the direction of meeting a need or toward reaching a goal. It is described in two broad categories. Extrinsic motivation is the motivation to engage in an activity as a means to an end, whereas intrinsic motivation is the motivation to be involved in an activity for its own sake. Motivation has been viewed differently in the learning theories, and many theories attempted to explain motivation, namely self-efficacy, attribution, self-determination, and achievement goal, among many other theories. Learning and motivation were described to be so interdependent that a person cannot fully understand learning without considering motivation. In order to play an effective role in student motivation, curriculum planners and teachers have to work on many aspects of the curriculum; choice of educational strategy, maximizing the educational environment, involving students in goal setting, building sound teacher-student relation-ships, encouragement of reflection and self-regulation, provision of feedback, and guaranteeing fair and objective student assessment.

Keywords: learning theories, self-efficacy, achievement goal, adult learning, self-regulation, feedback

Introduction

Motivation is defined as a psychological force that moves a person toward some kind of action⁽¹⁾. It is derived from the Latin word *movere*, which means to set into motion. It is considered as the most important factor that educators can target in order to improve learning⁽²⁾. It is thought that learning and motivation are so interdependent that a person cannot fully understand learning without considering motivation⁽³⁾. With regard to students, very little if any learning can occur unless students are motivated on a consistent basis⁽²⁾. Learning is a relatively permanent change in mental processing, emotional functioning, and/or

behavior as a result of experience. It is a lifelong, dynamic process by which individuals acquire new knowledge or skills and alter their thoughts, feelings, attitudes, and actions⁽⁴⁾. Motivation is what urges students to learn and it may be viewed in relation to learning in many ways⁽⁵⁾. Motivation to learn is a more meaningful concept. It is the student's tendency to find academic activities meaningful and worthwhile and to try to get the intended learning benefits from them⁽⁶⁾.

Intrinsic and extrinsic motivation

Motivation is usually described in two categories. Intrinsic motivation refers to purposive behavior (including learning) wherein the goal is the action itself. Examples of intrinsically motivated actions are pursuing curiosity, searching for meanings, developing competence, making choices, and serving others without the promise of external rewards or the threat of punishment⁽⁷⁾. For intrinsically motivated behaviors, satisfaction is inherent in being fully engaged in the activity; the activity is both the means and end for involvement. Extrinsic motivation refers to purposive behavior (including learning) wherein the activity is instrumental for reaching a goal (reward) that goes beyond the activity itself. Some examples of extrinsically motivated actions are studying to get a high grade, completing a certain project to get a salary increase, and obtaining an advanced degree to get a better job or earn more money. For extrinsically motivated behavior, satisfaction can result from the instrumental outcomes of an activity but not necessarily from engaging in the activity per se. Although extrinsic and intrinsic motivation are thought to be two ends of a continuum (meaning the higher the extrinsic motivation, the lower the intrinsic motivation and vice versa), they are actually on separate continua(8). For example, students might study hard both because a topic is interesting to them and because they want good grades in exams. Others might study only to receive the good grades. The first group is high in both extrinsic and intrinsic motivation; the second is high in extrinsic motivation and low in intrinsic motivation. Research indicates that intrinsically motivated students achieve higher than those who are only extrinsically motivated⁽⁹⁾.

Motivation based on learning theories

Behavioral learning theories

Based on the work of B.F. Skinner, behavioral theories describe the processes of increasing the desired behavior by using either positive consequences or avoidance of negative stimuli as extrinsic forms of motivation⁽¹⁰⁾. Focusing mainly on what is directly observable, behaviorists view learning as the product of the stimulus conditions and the responses that follows the contact with the stimulus. Generally ignoring what goes on inside the individual; behaviorists closely observe responses and then manipulate elements in the environment to bring about the intended chan $ge^{(4)}$.

Motivation is explained as the desire to reduce some drive; hence, satisfied, complacent, or satiated individuals have little motivation to learn and change. Getting behavior to transfer from the initial learning situation to other settings is largely a matter of practice and a similarity in the stimuli and responses between the learning situation and future situations where the response is to be performed. Behaviorists' perspectives on motivation assumed that teachers could manipulate students' engagement with learning through the introduction of controls and rewards. However, it has been proved that people expecting to receive a reward for completing a task do not perform as well as those who expect nothing⁽¹⁰⁾.

Cognitive learning theories

• Self-efficacy theory

Developed from a social-cognitive perspective, self-efficacy is a construct synonymous with confidence and refers to a person's judgment about his/her capability to perform a task at a specified level of performance ⁽¹¹⁾. It is a predictive theory in the sense that it deals with the conviction that one can accomplish a specific behavior. The belief of competency and capability relative to certain behaviors is a precursor to expected outcomes⁽⁴⁾. Self-efficacy is correlated with achievement related behaviors, including cognitive processing, achievement performance, motivation, self-worth and choice of activities⁽¹¹⁾. The belief of competency and capability relative to certain behaviors is a precursor to expected outcomes. Students who are efficacious (perceive themselves as capable) are more likely to be self-regulating, strategic and metacognitive than students who do not feel efficacious. Students who are not confident or perceive themselves incapable may avoid tasks that are seen as challenging or difficult, while those who are highly efficacious will be more willing to face difficult or challenging problems and learning situations⁽¹²⁾.

• Attribution theory

An attribution refers to the perceived cause of an outcome; it is a person's explanation of why a particular event turned out as it did. In an academic setting, typical attributions might include effort, skills and knowledge, strategies, ability, luck, or the teacher's mood⁽¹¹⁾. According to Weiner⁽¹³⁾, attributions give rise to emotions, which, in turn, have consequences for future behaviors (motivation).

Attributions occur on three dimensions. The first is called locus (the location of the cause); it is either within or outside the learner. The second is stability, whether or not the cause can change. The third is control, the extent to which the students accept responsibility for their successes or failures, or are in control of the learning situation⁽⁹⁾. Bandura⁽¹²⁾ has noted that selfefficacy may influence the attribution formed. Highly efficacious people will ascribe the outcome to their own abilities, while less confident individuals will attribute the outcome to inability. While students may cite specific factors as attributions (e.g. Ability or effort), it is the students' perceptions of the characteristics of those attributions which actually influence motivation through emotions. That is, attributions possess characteristics and those characteristics affect motivation⁽¹¹⁾.

• Self-determination theory

Self-determination theory is one of the most comprehensive cognitive motivation theories. It examines both extrinsic and intrinsic motivation and describes a continuum of increasing self-determination that proceeds through stages of extrinsic motivation and ends in intrinsic motivation. Self-determination is the process of deciding how to act on one's environments⁽¹⁴⁾.

According to self-determination theory, having choices and making decisions is intrinsically motivating, and people wouldn't be content if all their needs were satisfied and they could not make decisions about those choices. Self-determination theory assumes that people have three innate psychological needs; competence, control, and relatedness⁽⁹⁾. The need for competence might help explaining the motivating effects of both challenge and curiosity. Meeting challenges provides evidence that competence is increasing, whereas accomplishing trivial tasks provides little information about competence⁽¹⁵⁾. As with selfefficacy, the most important factor influencing students' perception of competence is evidence and feedback indicating that their understanding and skills are improving.

• Achievement goal theory

The achievement goal theory posits that students' academic motivation can be understood as attempts to achieve goals⁽¹¹⁾. The premise of goal theory is that students' behaviors are a function of drives to achieve particular goals, and two dominant goals of learning were describes; *mastery* and *performance*. Students pursuing mastery goals (also called task goals) have

been described as self-regulating and selfdetermining⁽¹⁶⁾ and their dispositions foster cognitive development. They believe that effort or some internal, controllable factor is the cause of success or failure and intelligence is malleable. They also indicate a greater preference for challenge, engage in more strategy use, especially deep strategy processing make more positive self statements, report more positive affect and less negative affect, and are more likely to take responsibility for success and less likely to deny responsibility for failure⁽¹¹⁾.

Humanistic learning theories

The humanistic learning theory has modified the approach to education and changing behavior by focusing primarily on the subjective needs and feelings of the learner and by redefining the role of the educator⁽⁴⁾. From a humanistic perspective, motivation is derived from each person's needs, subjective feelings about the self, and the desire to grow. The transfer of learning is facilitated by curiosity, a positive self-concept, and open situations where people respect individuality and promote freedom of choice. Under such conditions, transfer is likely to be widespread, enhancing flexibility and creativity⁽¹⁷⁾.

• Hierarchy of needs

The humanistic view is based on Abraham Maslow's⁽¹⁸⁾ work on "Motivation and Personality", which aimed at describing how people (including students) seek to attain five different levels of hierarchical needs⁽¹⁰⁾, which he says play an important role in human motivation. He published his theory of "human motivation", in which there are five classes of need arranged in hierarchial order (figure 1), from the most basic up to the highest level⁽¹⁷⁾. Each class of need is stronger than the one above it in the hierarchy, in that it motivates the individual more powerfully when both needs are lacking. Gratification of needs is a key concept in this theory; when a need is gratified at one particular level, the next higher need emerges.



Figure 1: Maslow's hierarchy of needs.

At the bottom of the hierarchy are physiological needs (food, warmth, sleep); then come safety needs; then the need for belonging and love; followed by self-esteem. At the top of the hierarchy are selfactualization needs (maximizing one's potential)⁽⁹⁾. Maslow's work, while attractive to many people, has been strongly criticized. One of the most common criticisms is the lack of research evidence to support his description of needs⁽¹⁹⁾. A second is the inconsistency and lack of predictive ability in his hierarchy. For instance, people with serious illnesses or disabling conditions (threats to their physical or emotional wellbeing) are sometimes able to accomplish significant intellectual achievements and still seek order, truth, and beauty. Maslow's hierarchy would predict that this could not happen⁽⁹⁾.

• Adult learning theory

Andragogy has become the preferred term in the literature for describing the teaching and training of adults⁽¹⁷⁾. One of the foremost contributors to this area is the Ameri-

can educationalist Malcolm S. Knowles⁽²⁰⁾. The term andragogy is used in the literature as a contrast to pedagogy, literally a leader of children, and Knowles' approach is based upon the differences he perceived between the teaching of adults and children. Andragogy encourages a proactive approach to learning in which enquiry and autonomy feature predominantly. However, pedagogy and andragogy should be seen as parallel, rather than as opposing, models and Knowles acknowledges that both may be appropriate for children and depending upon adults the given circumstances⁽¹⁷⁾.

Knowles stated that adult learners differ from child learners in six respects (as shown in table 1); the need to know, the learners' self-concept, the role of learners' experiences, readiness to learn, orientation to learning, and motivation.

Table 1: The different assumptions of pedagogy and andragogy

Assumptions	Pedagogy	Andragogy
Learner's need to know	Students must learn what they are taught in order to pass their tests	Adults need to know why they must learn something
Learner's self- concept	Dependency: decisions about learning are controlled by the teacher	Self-direction: adults show re- sponsibility for their own learning
Role of learner's ex- perience	It is the teacher's experience that is seen as important. The learner's expe- rience is seen as of little use as a learn- ing resource	Adults have greater and more varied experiences which serves as a rich resource for learning
Learner's readiness to learn	Learner's readiness is dependent upon what the teacher wants them to learn	Adult's readiness relates to the things he or she needs to know and do in real life
Student's orientation to learning	Learning equates with the subject matter content of the curriculum	Adults have a life-centered orientation to learning involv- ing problem solving and task- centered approaches
Student's motivation	Student's motivation is from external sources such as teacher approval, grades and parental pressures	Adult's motivation is largely internal such as self-esteem, quality of life and job satisfac- tion

Student Motivation: How to ...?

Educational strategies and instructional methods

Mastering the information and facts is not the central purpose of learning. Instead, fostering curiosity, enthusiasm, initiative, and responsibility for learning is much more important and enduring and should be the primary goal of any educator⁽⁴⁾. Curricula, which are subject-based, depend on extrinsic forms of motivation such as examinations and competition. On the other hand, interactive learning stimulates interest by emphasizing the application of theory by encouraging student participation and by providing opportunities for cooperation as a form of learning. The emphasis of integrated learning is on the dynamic process in which the learners take responsibility for their own learning. The surge of curricula adopting problem-based learning to varying extents favors the deep approach to learning, in contrast to subjectbased curricula which emphasize surface and strategic learning $^{(21)}$.

Originating from self-determination theory, early clinical contact that is both stimulating and relevant to the desired learning outcomes will be beneficial and will help motivating medical students⁽²²⁾. No matter what educational strategy is used, it is important to maintain students' natural curiosity about how the human body works and about how to provide medical care to patients⁽²³⁾. Teaching as telling is not an effective strategy if the intent is to actively engage adult students in understanding complex problems and solving non-routine problems. Meaningful learning experiences involve subject matter that is worth knowing.

A major purpose of any educational program is the transfer of learning that is, applying what is learned in one role or task to a new role or task, or from a role or task learned in one setting to another setting. Whether in subject matter or environment, or both, a degree of similarity between the learning context and the application context is necessary to enable the effective use of knowledge and skills that are learned⁽⁷⁾.

Goals and objectives

No one rises to low expectations; most adult students will strive to attain high expectations if they are within reasonable (but beyond their immediate reach (7) grasp)⁽⁷⁾. The task the learners are required to do should have learning outcomes which are aligned with the curriculum as a whole and which are specific enough to be reasonably achievable within the allocated time⁽²²⁾. Clarity of expectations is enhanced through transparency and alignment. Adults learn best, and educators are most effective, when the alignment is transparent among course goals and objectives, content, learning activities, and formative and summative assessments of learning performance (such as tests and grades, but also written and verbal feedback). The course syllabus or the course plan must meet the requirements for transparency and alignment by clearly conveying the instructional design of the course and should be used regularly and reinforced through ongoing communication with students⁽⁷⁾.

Adult learning success is enhanced by emphasizing appropriately challenging objectives and activities while providing adequate support that is responsive to individual needs, interests, and expectations. In addition to stimulating discussions and demonstrations, adult students often can be inspired through a variety of "hands-on" activities that are clearly linked to the learning objectives.

Learning environment

When the learning environment is physically, mentally, or emotionally unsafe, it will be hard for the students to put all of their

attention on learning. The teacher who always criticizes students will lead to the students not feeling accepted or belonging to the institution. Low self-esteem and ego will make the student feel unappreciated and unrecognized. Therefore, the educator must do what is necessary to support the students to a higher level of need satisfaction so that they can focus their attention mainly on learning. Even at the level of selfactualization, the educator may need to provide encouragement or opportunities⁽¹⁸⁾.

The term "learner-centered" refers to learning environments that pay careful attention to the knowledge, skills, attitudes, and beliefs learners bring to the educational setting⁽²⁴⁾. The environment of the medical school is notable, not only because it derives from and is a manifestation of the curriculum, but because the environment is a determinant, of pre-eminent, salient significance, of the behavior of the medical school's students and teachers⁽²⁵⁾. The environment can have a profound effect on learning. The physical environment has to be arranged so that students have easy access to study space, the schedule should be organized to maximize student learning, the services such as tutoring or study groups should be available for students who need them. The learning environment should also be permissive; in the preclinical years it should help minimize unnecessary competition, the faculty members should set realistic standards for what students are expected to achieve. During the clinical years, faculty members and residents should serve as role models in the compassionate and ethical treatment of patients⁽²³⁾.

Overall, the environment needs to be accessible, safe, positive, personalized as much as possible, and empowering. Teachers should be producers of environments that allow students to learn as much as possible. Institutions should become learning habitats wherein relationships are fostered between people and students develop their own individual instruction plan, and a variety of investigating system options that replace the passive receipt of information⁽²⁾.

Teacher-student relationship

The role of teachers seems to be shifting from preprogrammed knowledge dispensers to managers of student learning and the learning environment. Therefore, teachers must be empowered to exercise professional judgment in the classroom to attain clearly expressed goals. Professional educators should be given latitude to test individual approaches based on strategic goals and incentive systems. Also, teachers should be provided with faculty development programs to support them in this expanded role including more time for peer interaction to share views on what is effective⁽²⁾.

Because the uniqueness of the individual is fundamental to the humanistic perspective, much of the learning experience requires a direct relationship between the educator and the learner, with instruction tailored to the needs, self-esteem, and positive growth of each learner. Learners, not educators, choose what is to be learned, and within this framework educators serve as resource persons whose job is to help guide learners to make wise choices⁽⁴⁾. Relationships are at the heart of teaching since it is an activity based on communication. Some of the necessary elements that build and maintain constructive relationship include trust, being on the students' side, treating students with respect all of the time, being in charge and leading them to achievement, collaboration, and showing listening skills and acceptance of what the students says. Empathy can help to build a trusting relationship⁽²⁶⁾. Teacher skills that motivate students to learn also include staying calm, eliminating negative

thoughts or feelings, disengaging stress, remembering that students have their own realities and are doing their best, not taking students' actions personally, remembering that students are not bad rather just in the process of development, and maintaining a sense of humor⁽²⁷⁾.

Feedback

Feedback informs students about their performance in relation to the learning situation. It can come in various forms; end-ofterm grades, a verbal reprimand, a praise for an essay, or a formal or informal discussion between trainer and trainee. Feedback should concentrate on both the good aspects of a performance and the not so good. Feedback from the teacher should concentrate on improving learning and students should experience a gain in motivation and in information if it is carried out effectively⁽²¹⁾.

Learners who do not receive adequate, timely and relevant feedback can rapidly become disheartened. Regular feedback is important for maintaining a learner's motivation by reinforcing good performance. It can also reduce anxiety by encouraging learners to understand and reflect constructively on areas for improvement and growth. A good course ensures that regular feedback opportunities are planned for and built in, so that both teachers and learners come to expect them⁽²⁸⁾.

Test scores or grades by themselves are not sufficient feedback to help guide students in their learning activities. Learners need feedback on their learning, early and often, to learn well; to become independent, they need to learn how to give themselves feedback (also called reflection)⁽²⁹⁾. Clear, timely, and substantive feedback that adults understand and can use helps them to assess their accomplishments and to diagnose where and how they can improve their performance. Student feedback on teaching skills is also very important, as it contributes to both teacher professional development and the scholarship of teaching and learning⁽⁷⁾.

Assessment

The ways in which learners are assessed and evaluated powerfully affect the ways they study and learn⁽²⁹⁾. Assessment is an essential part of the learning-teaching process. Assessments that students view as punitive or controlling push students away from intrinsic motivation, whereas assessments that provide information about increasing competence can enhance intrinsic motivation⁽⁹⁾. Teachers need to know how to give tests that are motivating to the students. Tests need to have thematic relevance, that is, they need to aim at checking what students have learned and whether they can apply it to real-life tasks. In addition, tests that are more demanding or challenging than anything practiced in class will have negative effects on student motivation. Also, tests should be based on course objectives and should not involve surprise or novelty⁽²⁾. The goal of assessment should be to establish a climate that gives students perceptions of control and emphasizes learning and increased competence. Clear expectations and alignment make assessments predictable, which increases perceptions of control⁽⁹⁾. Test questions should be as easy as possible for test takers to process and answer, even when the content is very challenging. In general, test-taking instructions, terminology, layout, and item choices need to not be ambiguous, confusing, illogical, unclear, imprecise, or poorly designed⁽³⁰⁾.

Reflection and self-regulation

The continuing development of knowledge and skills, both personal and professional, is aided by adult students' reflections on their use of particular learning strategies and skills as well as their self-regulation of learning goals, activities, assessments, and resources⁽⁷⁾. Self-regulation is the process of accepting responsibility and control for one's own learning. It always begins with goals. Because self-regulation is developmental, teachers need to initially scaffold students' efforts and then gradually turn more and more responsibility over them⁽⁹⁾. It is largely considered to be a process by which an individual seeks to accomplish goals through the self-directed use and modification of highly specific strategies⁽³¹⁾. If experience in the natural environment is to result in learning which promotes enquiry, critical thinking, and understanding, the experience must be interrogated, and reflected on in the light of theory.

This means that experience is not, on its own, enough to support learning. Rather, deliberate and conscious reflection is a requirement for effective experiential learning to take place. Teachers, therefore, need to work alongside students in supporting this reflection and critical appraisal of experience in order that students learn from it⁽³²⁾.

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