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MOTIVATING YOUR STUDENTS

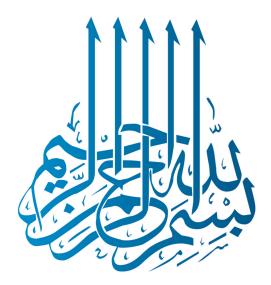
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عمادة تطوير المهارات

إنجاز متميز .. والتزام بالتطوير





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How do you motivate students to study and learn? Not all students have a burning desire to master the material faculty teach. Some students do not want to go to college to learn, but go because they are either forced to by their families, or otherwise feel that they have to. Students who are getting less than satisfactory grades frequently say they study hard and can often describe a variety of time consuming study activities that are not working well for them. These students then ask their instructors what they can do to improve their grades. What is motivation? What are the best ways to increase motivation? In this booklet, I will answer these questions. I will first briefly describe motivation and summarize major theories of motivation. I will then briefly overview what is known about learning-if we better understand how students learn, we can better develop ways to motivate them to learn. Finally, I shall describe strategies to increase student motivation in the form of explicit tips and suggestions. Specifically, I shall cover the following objectives:

- To Identify Contextual Variables that May Improve Student Motivation for Learning.
- To Examine the Context in Which Teaching and Learning Take Place.
- To Review Student Data on Motivation and Learning.

- To offer specific tips on how to increase student motivation.
- To Stimulate thinking on how one might increase student motivation for learning.

After reading this booklet, you will better understand the variables that determine student motivation to study and learn, and be able to incorporate this understanding into the design of classroom lessons that help motivate students to achieve academic success.

Why Motivation Is Important

There are three commonly used measures of motivation: choice, effort, and persistence (Svinicki & McKeachie, 2011). Students who are motivated to learn choose activities that enhance their learning, they then work hard, and continue to do so even when there are obstacles to learning. There are many psychological variables linked to motivation. Some students are driven by a high need for achievement, some students are said to be extrinsically motivated (those who study primarily for grades or approval of others), other students are intrinsically motivated (those who study for the value of the learning in its own right). Students are generally focused on activities that they value and in which they expect to succeed (expectancy-value theory). Motivation is also said to be directed towards goals. Some students adopt mastery goals where the primary desire is to understand and master the material. Other students adopt performance goals where they focus on their learning outcomes in relation to the learning outcomes of others. Perhaps most well known is the work of Carol Dweck (2006) who showed that students who believe intelligence is fixed show different levels of motivation and effort than students who believe that intelligence is malleable (what is called a growth mindset). Each of these different variables relate to motivation and learning (McKeachie & Hofer, 2001; Olson, & Hergenhahan, 2009; Svinicki & McKeachie, 2011) and the five motivational theories that relate to educational success (with key points on each) are summarized below:

1. Autonomy and Self Determination

- People have a need for control over their lives.
- Control helps people feel that they have choices.

2. Intrinsic and Extrinsic Motivation

 People are motivated by both internal (enjoyable and interesting) and external rewards (social recognition, professional development, money).

- Teachers tap intrinsic motivation when they arouse student curiosity, provide appropriate challenges, and give students some control in the class.
- Teachers tap extrinsic motivation when they provide useful and constructive feedback.

3. Expectancy-Value Theory

- Students direct their energies toward activities they value and in which they believe they can be successful.
- Thus, teachers best promote learning when:
 - They show course content to have value to students.
 - They foster student expectations of success in the course.

4. Mastery /Performance Goal Theory

- Mastery Orientation.

Primary desire is to learn and master subject matter.

- Performance Goal Orientation.

Primary desire is to achieve relative to others (compete).

- Mastery believed to promote deeper learning.

Teachers foster mastery by having strong rapport with their students and encourage intellectual risk-taking.

5. Social Goals/Motivation Theory

- Students have social as well as academic goals.
- Students wish to be socially responsible and connected to other people.
- Teachers facilitate social accomplishment when they:
- Provide opportunities for peer discussion or group work.

This is very helpful in also fostering student learning.

As seen above, there are many different theories of motivation in the psychological literature. To help consolidate the different ideas, Svinicki, (2004) presented an Amalgamated Model of Motivation, which suggests motivation is influenced by two major factors:

- 1. Value of the Goal: There are many factors that influence how valuable a student will perceive a course or study topic to be. The main factors are
 - The perceived need for the knowledge or information.
 - Intrinsic quality of goal (does the student value the goal itself?).
 - Utility of goal (what use will achieving the goal have?).
 - Control and choice (how much control and choice does the student have?).
 - Influence of others (are the students' peers or family important factors?).

2. Learner's Expectation that the goal can be achieved

- Difficulty (is the topic, course, or subject very challenging?).
- Prior experience (how much experience or knowledge does the student have on the topic?).
- Match with learner skills (is the level of the challenge suitable?).
- Encouragement/examples of others (what support or modeling is provided?).
- Self-efficacy (does the student think they can achieve the goal?).
- Attributions of success/failure (what does the student believe success or failure is caused by?).
- Beliefs/attitudes about learning (what does the student see as the role of learning?).

One of the easiest things an instructor can do to motivate students is to help increase the value of a learning outcome for them. If instructors see students lacking motivation, assessing the extent they value what they are trying to get them to learn is the first critical step to take.

It seems obvious that motivation is an important component of learning, but what exactly is the connection? There have been many different ideas on this topic (e.g., Svinicki, 2004). Motivation:

- Directs the learners' attention to the task at hand and makes them less distractible. Anything that focuses learners' attention helps learning,
- Changes what the learner pays attention to,

- Helps the learner persist when they encounter obstacles,
- Helps the learner set goals which then serve as benchmarks that the learner can use to monitor their learning and recognize when they are making progress and when they are finished a task.

It is also important to place learning and motivation in the context of teaching and learning. Motivation comes from and is influenced by many different sources. The instructor is also a key player in determining student motivation. Lowman (1995) suggested two key dimensions are important in understanding the interplay between teaching, learning and motivation:

Dimension 1: Intellectual Excitement

This factor can be influenced by the clarity of presentations (in particular, what is presented) and the emotional impact on the students (or the way material is presented)

Dimension 2: Interpersonal Rapport

This factor hinges on the awareness of the interpersonal nature of the classroom and suggests a focus on communication skills that enhance motivation and enjoyment of learning and that foster independent learning.

Similarly, and perhaps more comprehensively, St. Clair and Groccia (2009) presented a model that focuses on seven variables that must be investigated to develop a full perspective of college and university teaching and learning. The main variables to keep in mind with a brief description of them are:

Teacher: Understanding who individual teachers are and what they bring to the learning situation can affect the quality of that experience.

Learner: Learners differ in the same ways that teachers differ. Students' backgrounds, preparation, and individual characteristics influence how, when, and why they learn.

Learning Process: Improved teaching should be grounded in an understanding of the research on the mechanics and transfer of learning.

Learning Context: Learning does not occur in a vacuum: Where and when teaching takes place influences teaching and learning.

Course Content: Analysis of the accuracy, difficulty level, organization and meaningfulness of what is taught can improve teaching.

Instructional Processes: The most obvious variable in this model describes what faculty as teachers and learners actually do in the instructional environment, which is what draws most the attention (often to the exclusion of other factors), including teaching strategies (competitive, cooperative, individual teaching techniques, computer-aided instruction, etc.), teacher behaviors (such as oral and written communication skills, enthusiasm, organization, time management) and student learning responses (note-taking, class participation, student engagement and interaction, etc.).

Learning Outcomes: The desired results of teaching, in terms of short- and longterm learning outcomes should be identified during the course design process, before teaching, and assessed on a regular basis throughout the instructional process.

What Do We Know About How Students Learn?

Learning involves changing the long-term memory of learners through helping them form new connections with the content you are teaching them (Svinicki, 2004). Students must focus on the key aspects of new information in order to learn it and then encode that information into long-term memory. Often a learner's prior knowledge or understanding hurts motivation to learn more in the case of when that prior understanding is wrong or incomplete. Four conditions must be present for learners to abandon previously held wrong beliefs (Posner, Strike, Hewson, & Gertzog, 1982):

- 1. Learners have to be confronted with information that makes them dissatisfied with their previous beliefs.
- 2. Any new explanation being offered to replace the old beliefs must be easily understandable.
- 3. The alternative must be believable, and.
- 4. The new ideas must be able to both predict new ideas as well as explain old ones.

Going beyond the motivational impediments brought on by incorrect prior learning, motivation to learn is often decreased by students not being able to accurately predict their own knowledge or understanding level. Cognitive psychologists refer to this phenomenon as the illusion of comprehension (Druckman & Bjork, 1994). One problem is that students confuse being familiar with a concept with actually knowing the concept. If they recognize a term or theory, they often then go on to believe they know the concept. This problem sometimes take place when students are taught by skilled instructors who

make a concept so clear in a lecture that the student then goes on to believe that they understand the material well, which is especially the case when physics or math problems are worked out in class. The professor may go through small steps towards solving the problem and the student understands it at that point but then has problems reproducing the steps when solving the problem individually. Professors exacerbate the problem by listing items on a test in the same order that the information was presented in class, wording test items in the same manner as the material was presented in class, and allowing the student to answer questions with overly vague answers that even remotely resemble the actual answer (Bereiter &Scardamalia, 1985).

To prevent the illusion of comprehension, faculty need to not make these mistakes and also present students with many opportunities to test their own learning. The more students are tested on material, the better sense they will have about what they know and do not know. Students need to be made more aware of different ways to study, and made more aware of the natural ways humans assume they know more than they actually do. Svinicki (2004) suggested that students study using a GAMES model. Students should:

- Use Goal-oriented study where they first plan their studying,
- Active studying where they do more than just read the book.
- **Meaningful** studying where they create their own examples and make connections between units.
- **Explain** the material to someone else, and.
- **Self-monitor** where they pay close attention to their understanding and make corrections when they identifying personal shortcomings.

Another important factor in teaching and learning is the concept of learning styles. There has been a considerable volume of research on the notion of learning styles and many instructors and even some introductory textbooks scramble to discuss learning styles. The term "learning styles" refers to the concept that individuals differ in regard to what mode of instruction or study is most effective for them (Pashler, McDaniel, Rohrer, & Bjork, 2008). Proponents of learning-style assessment contend that optimal instruction requires diagnosing individuals' learning style and tailoring instruction accordingly. Assessments of learning style typically ask people to evaluate what sort of information presentation they prefer (e.g., words versus pictures versus speech) and/or what kind of mental activity they find most engaging or congenial (e.g., analysis versus listening). Instructors often feel that if they their teaching does not match the students' learning style the students will not be motivated to

learn. Learning styles are correspondingly presumed by many educators to be very important for student success. Investigators use learning style inventories to explore differences among students, explore educators' opinions of learning styles, and suggest connections between learning styles and other constructs. In one of the most comprehensive and recent reviews on the topic, Pashler et al. (2008) showed that there is little empirical evidence in support of the strongest learning style claims, such as that a person with a particular learning style is unable to learn in an "incompatible" teaching style. The bottom line is clear. Instructors need not worry about matching their teaching style to student learning styles but should use a variety of teaching styles in general.

Beyond learning styles, there are broad differences in the ways that people want to learn (or in how they approach knowing). Tweed and Lehman (2002) organized a wide body of findings and compared the Socratic method of learning, exemplified by the questioning of one's own and others' beliefs, the evaluation of others' knowledge, having high esteem for self-generated knowledge, and focusing on error to evoke doubt, with the Confucian method of learning, exemplified by effortful, pragmatic, and respectful learning, behavioral reform, and the acquisition of essential knowledge. The Confucian and Socratic models can easily be conceptualized as representing two ends of the learning continuum within all individuals. The consideration of individual differences in ways of knowing merging educational theory with this new cultural dichotomy in learning makes for a more powerful heuristic tool for educational reform.

Most students engage in and feel pressure to memorize the material and illustrate an extremely pragmatic approach to learning. They are concerned with whether their coursework will help them get a good job, and are often turned off by courses (e.g., general education requirements) designed for the broadening of intellectual horizons. Student efforts to memorize material for the test and to be pragmatic are both major aspects of the Confucian style. The recent initiatives to make learning more active and the established need for instructors to modify their techniques to increase student engagement with the material testify to a need for more Socratic learning. Pedagogical writings urging educators to utilize multiple instructional styles suggest that more often than not, methods like the traditional lecture should be modified with other instructional styles that will engage different styles of learning and knowing.

A substantial body of pedagogical writing on the ways that people learn and acquire knowledge bears on the Socratic-Confucian framework. For example, Bloom and colleagues (see Anderson & Krathwohl, 2001 for a review) initiated the examination

of learning by proposing that optimal learning is achieved by having students analyze, evaluate, synthesize, and apply knowledge beyond just remembering and comprehending it. Perry (1970) discussed different types of students and distinguished "dualistic students" for whom knowledge is certain, and right or wrong is acquired from authority, from "uncertain students" who are uncertain (replacing the right or wrong dichotomy by separating knowledge into what is known versus unknown), and "relativistic students" who use relativistic thinking, for whom some knowledge claims are better than others, and for whom knowledge is validated by evidence relevant to context. If students' approach to learning in general is philosophically different from their instructor's philosophy of teaching, it is possible that motivation may suffer as students may feel a lack of connection and even frustration. They are a number of ways that motivation can be increased.

Tips for Increasing Motivation

Based on the five theories of motivation reviewed previously, McKeachie and Hofer (2001) suggested the following suggestions for improving student motivation:

1. Provide Opportunities for Student Choice

- When assigning writing give students the choice of topics and also the choice of due dates.
- On tests allow students to choose which essay questions to answer (e.g., answer 3 of the following 5 questions). Also allow students to justify and elaborate on missed questions.

2. Share Your Own Motivation for Your Subject Matter and Teaching

- Show students why you fell in love with your subject matter. Share why you enjoy teaching. Discuss the different types of personal and social satisfaction you receive in your work. Explicitly mention the value your subject matter makes to the world. Reflect with students on the sorts of autonomy you enjoy in your work.

3. Make Class Time Valuable

- Prepare interesting and relevant lectures.
- From time to time vary class formats and activities.
- Allow opportunities for student discussion and interaction.

- Provide moderate degrees of intellectual challenge.
- For example, incorporate Problem-Based Learning.
- Pose thoughtful and stimulating questions.

4. Encourage Mastery By Offering Extended Opportunities for Papers and Tests

- Allow students to revise papers before receiving a final grade on them
- Allow students to retake some quizzes/tests to improve their understanding and grades.
- Offer students chances to learn from their mistakes.

5. Use Criterion-Referenced Grading Rather than Normative Grading

- Make point value of assignments crystal clear.
- Explain grading scale in detail so that students will know what they need to do to be successful.
- Avoid grading students relative to each other.
- These strategies help students perceive that they can control their destiny in our classes.

6. Provide Immediate and Helpful Feedback

- Feedback should be constructive and informative.
- Use controlling language only if necessary.

"might consider" rather than "must" or "should".

Aim feedback at the problem and not the individual.

In addition to these tips, Svinick (2004) offered the following suggestions for how faculty can motivate their students:

- Be a good role model.
- Pick tasks with utility, challenge, & interest value.
- Encourage self-efficacy.
- Base evaluation on progress, mastery orientation.
- Provide choice and/control over goals/strategies.
- Communicate high expectations in line with capabilities .

Summary: A Classroom Example on Motivating Students

To get a good sense of what motivates students, Buskist (2010) asked 167 students what teachers could do to increase their motivation_for learning. The top three responses (and some suggestions to do it) are:

1. Make Lectures Interesting

- Provide Relevant Real-Life Examples and Stories.
- Exhibit Enthusiasm for Subject Matter.
- Don't Always Lecture-Mix Up Class Activities.
- Allow for Student-Teacher Interaction.
- Allow Student Input in Class-Questions, etc.

2. Show Concerns for Students (Social Context)

- Be Respectful Toward Students.
- Show Students You Care if they Pass or Fail.
- Let Students Know that You Want Them to do Well in Your Class.
- Look for Opportunities to Connect Your Subject Matter with Your Students' Lives.

3. Establish Class Contingencies/Policies

- Require/Take Attendance.
- Offer "Pop" Quizzes and/or Frequent Testing.
- Occasionally Offer Extra Credit .
- Make Sure Test Items Correlate Highly with Material Covered in Class.

It is important to note that many of the above suggestions for motivation depend on how class design. In conclusion, the following points summarize the effective elements of course design that influence motivation:

- Be an Interesting and Enthusiastic Teacher.
- Establish Rules of Etiquette.
- Establish Rapport with Your Students/Show Your Concern.
- Use Active Learning Techniques to Provide Meaningful (Significant) Learning Experiences.
- Establish Learning Contingencies and Tie Learning Objectives to Student
 Assessment.
- Frequently Assess Student Learning with Feedback.
- Assess Your Teaching Using a Variety of Different Methods.

Like most human attitudes and behaviors, motivation is a complex phenomenon that is predicted by many different personality characteristics. Motivation, though based in the student, can also be determined by the actions of the instructor, the design of the course, and the interaction between the student and instructor. In this booklet I reviewed a number of different theories on motivation and tips to increase motivation that corresponded to each. The annotated references provide additional information on many of the topics discussed above.

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