The Theory and Practice of Student Motivation

Lessons from the 2020 – 2021 Student Motivation FLC at the University of Georgia

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What is motivation?

Our FLC's working definition for motivation was "An impetus to initiate and sustain engagement with something." The "something" in that definition can refer to a wide variety of things, including a task/activity, major, career, hobby, routine, relationship, etc. Our motivation for engaging with the "something" depends greatly on what that "something" is.

Why are there so many motivation theories?

Different things motivate us in different contexts. For example, the reasons we choose to pursue our careers are likely different from the reasons we pursue hobbies in our free time, and both may be different still from the reasons we choose to exercise or eat healthy. Different motivation theories are applicable to explain human motivation in different contexts, and each can have important implications for motivating our students.

Having a broad understanding of many motivation theories can help you pinpoint how to motivate different students based on their habits, goals, and reasons for being in your class. That said, if you are interested in a single theory that can help you design your course to be broadly motivating, we recommend focusing on the MUSIC Model of Motivation.

The structure of this handout

Each page of this handout outlines one of the seven theories we covered over the course of the FLC, including:

1. The context in which the theory is applicable
2. A brief overview of the theory
3. A few ways the theory can inform teaching and learning practice
4. A list of related material for further reading

Using this handout

While some of our members had experience as motivation researchers, we do not intend for this document to make authoritative statements on the field of motivation or any particular theory. Rather, this document should be interpreted as a condensed version of the collective knowledge of FLC participants resulting from a year of surveying motivation literature and discussed among ourselves. It is meant to provide a brief, instructor-friendly description of each theory and offer ways that theory can inform instructional practice.

We recommend against trying to digest every theory here at once and make sweeping changes to your instruction. Rather, we find it is most helpful to identify a theory that resonates with you and try to implement one change at a time. Small victories can be important components of motivation, after all!

The MUSIC Model of Motivation

Applicable Contexts:
Designing course material and activities to be motivating for a broad range of students; assessing student motivation for a course or activity.

About This Theory:
Dr. Brett Jones created the MUSIC Model in 2009, motivated by his observation that the landscape of motivation theory was impenetrable for most instructors who just wanted to know how they could motivate their students. Accordingly, he looked across many theories of motivation and came up with **five components of student motivation** instructors could design their courses to address:

eMpowerment	Students believe they **have meaningful control** over some aspect of their learning.
Usefulness	Students believe the content will be **useful to them in the present or future**.
Success	Students are **challenged** and believe they **can succeed if they put forth effort**.
Interest	Students find course activities **enjoyable** or find the content **intrinsically interesting**.
Caring	Students believe the instructor & other students **care about them** and **want them to succeed**.

Strategies in the Classroom:
Each of the MUSIC Model components has direct implications for how instructors can motivate their students. For example:

Component	Example strategies
eMpowerment	(1) Provide students with alternative methods of demonstrating their learning; (2) Allow students flexibility in the order they complete assignments
Usefulness	(1) Conduct activities that demonstrate usefulness of material to the real world; (2) Relate content to students' everyday lives
Success	(1) Provide rubrics with clearly defined criteria for excellence; (2) Divide complex learning activities into simpler chunks
Interest	(1) Use novelty, food, games, controversy, etc. to attract students' attention; (2) Allow students to select topics of interest for as the focus of course projects
Caring	(1) Show concern for students' successes and failures; (2) Make reasonable accommodations when students encounter personal setbacks

Dr. Jones' MUSIC website and book (in Further Reading below) contain many other examples.

Further Reading

Jones, B. D. (2021). MUSIC model of motivation. Retrieved from www.themusicmodel.com.

Jones, B. D. (2018). *Motivating students by design: Practical strategies for professors* (2nd ed.). Charleston, SC: CreateSpace. Available free via https://vtechworks.lib.vt.edu/handle/10919/102728.

Jones, B. D. (2021). User guide for assessing the components of the MUSIC model for academic motivation. Retrieved from https://www.themusicmodel.com/questionnaires/. Archived at https://perma.cc/2UUT-RPRC.

Self-Determination Theory

Applicable Contexts:
Finding ways to motivate students intrinsically instead of extrinsically.

About This Theory:
Self-determination theory (SDT)—advanced primarily by Dr. Edward Deci & Richard Ryan in the early 2000s—explains the activities we freely choose (i.e., self-determine) to engage in based largely on two sub-theories. The first sub-theory is **Cognitive Evaluation Theory**, which asserts that we are intrinsically motivated do activities that satisfy three basic psychosocial needs – competence, autonomy, and relatedness. The second sub-theory is **Organismic Integration Theory**, which argues that there are different extents to which we self-regulate extrinsically motivated activities, based on the extent to which we have internalized the activity (i.e., integrated the activity into our sense of self.) The two sub-theories fit together in that **increasing the extent to which an activity meets basic psychosocial needs will increase how intrinsically motivating the activity is** (and, therefore, how well we self-regulate)**:**

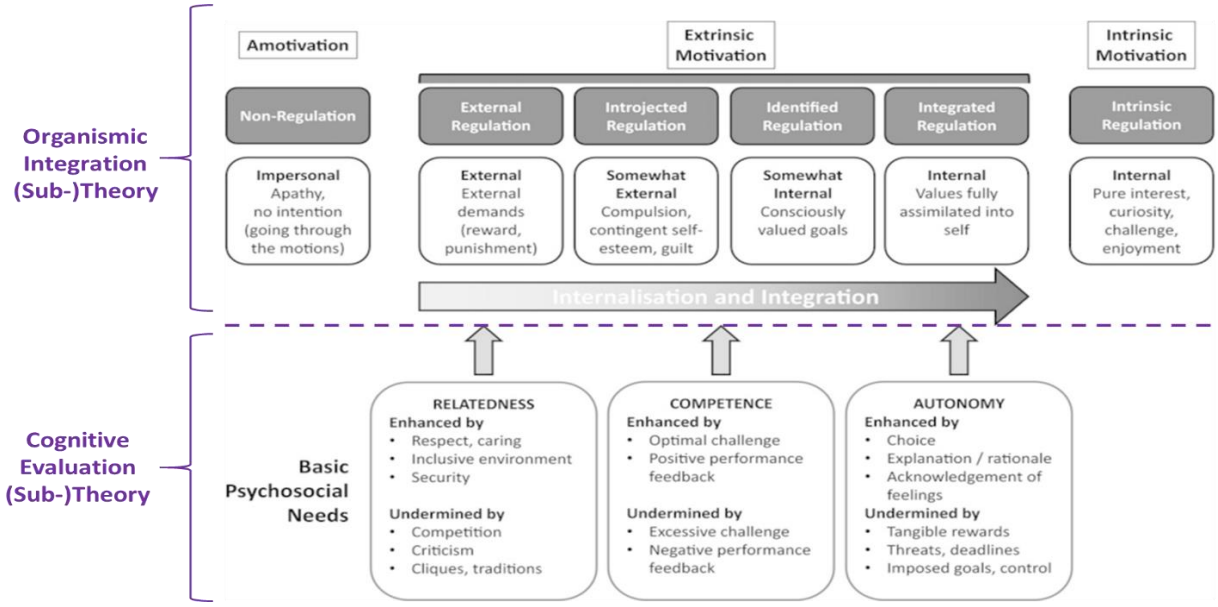


Image adapted from Cook, D., & Artino, A. (2016). Motivation to learn: An overview of contemporary theories. *Medical Education, 50*, 997-1014. doi:10.1111/medu.13074

Strategies in the Classroom:
The three psychosocial needs—autonomy, competence, and relatedness—help shift motivation from extrinsic to intrinsic. While extrinsic motivation can provide strong incentive for short-term effort, intrinsic motivation better prepares students to put forth long-term effort. Not every aspect of the classroom needs to be intrinsically motivating, but SDT provides guidance for situations where intrinsic motivation is desirable, such as for building habits that should endure once a course is over. Most poignantly, SDT suggests that **tangible rewards** for doing well and **negative feedback** that focuses on elements of poor performance both build extrinsic motivation. Conversely, **praise** when students do well and **constructive feedback** that focuses on how to improve both build intrinsic motivation.

Further Reading

Deci, E. L., & Ryan, R. M. (2000). The" what" and" why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological inquiry, 11*(4), 227-268.

Singer, L. (2017). Self-determination theory: Understanding human motivation for fun and profit. Retrieved from https://leif.me/self-determination-theory-understanding-human-motivation-for-fun-and-profit/. Archived at https://perma.cc/R8NG-CECW.

Goal Orientation Theory

Applicable Contexts:
Helping students set goals focused on improving oneself

About This Theory:
Goal Orientation Theory categorizes the kinds of goals we set for ourselves and how that choice affects our motivation to pursue them. The theory is still developing, but its most common form categorizes goals along two dimensions. First, we can strive for either **mastery** (wanting to be good at something) or **performance** (wanting other people to believe we're good at something.) Second, we can either choose to **approach** achievement of our goal (i.e., striving for the best outcome) or to **avoid** failing at achieving our goal (i.e., striving to avoid the worst outcome.) While these two distinctions may seem small on paper, research indicates they have an important impact on the effort we are willing to put in to become good at something. Particularly, goals that are **approach-oriented** tend to be the most productive, with **mastery-approach** goals yielding the best motivation-related outcomes.

Best	**Mastery-Approach** You want to get better at something	**Performance-Approach** You want to prove to others that you're good at something	Good
Mixed	**Mastery-Avoid** You don't want your skills to deteriorate	**Performance-Avoid** You don't want others to think that you're bad at something	Bad

Strategies in the Classroom:
At the above table suggests, we want to help students set goals that are ideally mastery-approach-oriented, or at least performance-approach oriented. Some strategies to do that include:

Fostering a mastery orientation	Fostering an approach orientation
1. Emphasize and model learning from mistakes 2. Offer constructive feedback focused on helping students improve 3. Foster community and collaboration among students 4. Refrain from putting students in competition (or perceived competition) with one another 5. Give students' meaningful choices in learning tasks and in demonstrating their knowledge	1. Provide clear criteria for excellence in classroom tasks (e.g., via rubrics) 2. Adjust the difficulty level of classroom tasks based on the skill level of a class or group of students to keep tasks challenging 3. Provide low-pressure avenues (e.g., discussions, extra credit assignments) for students to "stretch" their skills beyond minimum class requirements.

Further Reading

Elliot, A. J. (2005). A conceptual history of the achievement goal construct. In A. J. Elliot & C. S. Dweck (Eds.), *Handbook of competence and motivation* (Vol. 16, pp. 52-72).

Lumen Learning. (2020). Goal orientation theory | educational psychology. Retrieved from https://courses.lumenlearning.com/edpsy/chapter/goal-orientation-theory/. Archived at https://perma.cc/9RRY-QUXY.

Svinicki, M. (2010). Fostering a mastery goal orientation in the classroom. In S. Meyers & J. Stowell (Eds.), Essays from E-xcellence in Teaching, Volume IX: Society for the Teaching of Psychology. Retrieved from http://www.bu.edu/ssw/files/2010/10/Fostering-a-Mastery-Goal.pdf. Archived at https://perma.cc/MM6X-WZQ7.

Expectancy-Value Theory

Applicable Contexts:
Issues of retention and persistence in a course or discipline (primarily)

About This Theory:
Expectancy-Value Theory was popularized by Dr. Jacquelynne Eccles with an eye toward explaining attrition of female students from math and science disciplines in the 90's. It asserts that our motivation to strive for achievement/excellence in a particular activity or domain (often called "**achievement motivation**") is contingent on two major factors: (1) Our **expectancy** of how well we are able to meet the challenges of the activity/domain, and (2) how **subjectively valuable** participation in the activity/domain is to us. Expectancy-value theory is all about diving into what kinds of expectancies and subjective values matter for our motivation, and what contextual factors can influence each. Particularly, it outlines one key expectancy (which primarily explains student performance) and four subjective values (which primarily explain student persistence/retention):

Expectancy for Success	The perception of how well one will do on a given activity.
Attainment Value	The importance of doing well on a given activity or domain to one's sense of self.
Utility Value	The usefulness of an activity or domain in relation to one's future plans.
Intrinsic Interest Value	The enjoyment one gains from an activity or domain.
Cost	The opportunity cost, difficulty, and emotional cost of engaging in an activity.

Strategies in the Classroom:
In order to help students perform well and persist in a course or discipline, there are specific ways instructors can help support student expectancies and task value, such as:

Component	Example Strategy
Expectancy for Success	Ensure alignment of objectives, assessment, and instructional strategies; design early assignments as early success opportunities.
Attainment Value	Provide avenues for students to connect content to their goals & passions
Utility Value	Use assignments that contain authentic, real-world tasks
Intrinsic Interest Value	Show your own passion and enthusiasm for the course content or discipline
Cost	Communicate consideration for other events going on in students' lives (e.g., major exams in other courses, extracurriculars, personal issues)

Further Reading

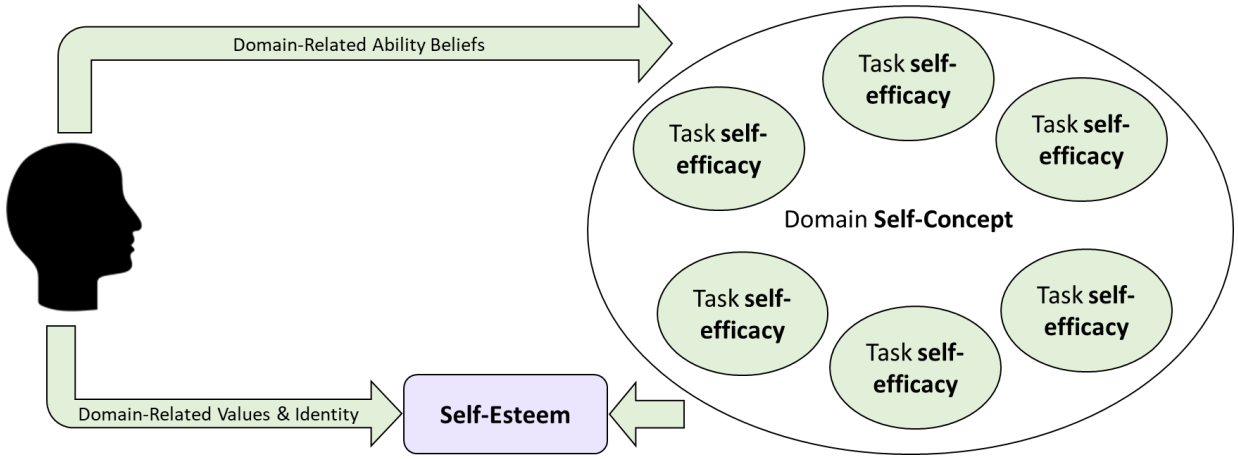
Wigfield, A., & Eccles, J. S. (2000). Expectancy–value theory of achievement motivation. *Contemporary educational psychology, 25*(1), 68-81.

Ambrose, S. A., Bridges, M. W., DiPietro, M., Lovett, M. C., & Norman, M. K. (2010). What factors motivate students to learn? In *How learning works: Seven research-based principles for smart teaching*. San Francisco, CA: Jossey-Bass.

Self-Efficacy, Self-Concept, & Self-Esteem

Applicable Contexts:
Helping students build their confidence in a subject and overcome feelings of low self-esteem

About This Theory:
Self-efficacy, -concept, and -esteem are highly related concepts. **Self-efficacy** is the level of confidence we feel in our ability to do a specific task in a specific context (e.g., solve a math problem related to kinematic motion, analyze a legal document for a particular kind of case, or design the architecture of a particular style of building.) **Self-concept** can be thought of as the domain-level (e.g., across a whole discipline) sum of all our self-efficacy experiences in a particular domain. For example, if I try to study engineering and conclude that I am not good at solving equations, drawing free-body diagrams, or understanding calculus, I may then sum these experiences to deduce that I am not good at engineering (which is a self-concept assessment.) **Self-esteem** is comprised of the value judgments we make about our self-concept. While self-efficacy and self-concept are mainly focused on confidence levels, self-esteem is more about how important being good at something is to us. Notably, we tend to distance ourselves from domains that hurt our sense of self-esteem.



Strategies in the Classroom:
The best way to improve domain self-efficacy, -concept, or -esteem is to address the most basic building block: improving **self-efficacy** for domain-related tasks. There are four categories of strategies for improve self-efficacy:

Strategy Category	Description
Performance Outcomes	Help students perform successfully on a task to boost their self-efficacy.
Vicarious Experiences	Demonstrate successful performance of a task in a way that students can follow and attempt themselves.
Verbal persuasion	Encourage students to believe they can succeed if they put forth effort.
Physiological feedback	Create a positive classroom environment to help students avoid associating course content with negative emotions or experiences.

Further Reading

Lopez-Garrido, G. (2020). Simply psychology: Self-efficacy theory. Retrieved from https://www.simplypsychology.org/self-efficacy.html. Archived at https://perma.cc/3C35-PC5H.
Leonard, V. (2020). Self-concept, self-esteem and self-efficacy. In Interpersonal Communication. Retrieved from https://socialsci.libretexts.org/@go/page/62835. Archived at https://perma.cc/JV2P-UCYP.

Attribution Theory

Applicable Contexts:
Helping students attribute their successes and failures to productive causes

About This Theory:
Attribution Theory asserts that we are each "scientists" trying to actively understand the causes of our perceived successes and failures. In other words, we are constantly seeking things to attribute our successes and failures to, and those decisions affect our motivation and willingness to continue learning. In the theory, there are 3 key dimensions we have to consider in terms of the object of our attribution: (1) If we have control over the perceived cause of our success/failure, (2) if the perceived cause of our success/failure is stable (relatively unchanging over time, as opposed to ephemeral), and (3) if the perceived cause of our success/failure is something internal to us or external (a part of our environment.) The combination of these attributional dimensions have important implications for how students attribute the overall causes of their successes and failures (and thus, whether they feel able to maintain or change the outcome in the future):

	Locus			
Stability	**Internal**		**External**	
	Controllable	**Uncontrollable**	**Controllable**	**Uncontrollable**
Stable	Long-term effort	Aptitude	Instructor bias / favoritism	Ease/difficulty of course or school
Unstable	Skills, knowledge, or situational effort	Mood or ailments	Help from friends or instructor	Chance/misfortune

Table recreated from Jones, B. D. (2014). Attribution theory v2. Retrieved from https://www.youtube.com/watch?v=yE4uQ0fXy3A. Archived at https://perma.cc/Z3GL-S5FX.

Strategies in the Classroom:
Attribution theory is most useful when working with individual students as they grapple with major successes or failures. As instructors, we usually want to help students understand the causes of their successes as **internal and within their control**; and help them accurately but constructively attribute the causes of their failures. Sometimes students will fail because of factors beyond their control, but most of the time it is due in part to factors that they can control and change in the future to achieve a better outcome. Similarly, student successes are often due in part to controllable actions rather than innate talent or aptitude. Students who attribute success mostly to inborn skill often lack resilience to cope with future failure.

There are a few strategies that can leverage attribution theory in course design:

- Incorporate metacognitive activities (e.g., exam wrappers) to help students reflect on what they will do differently to improve in the future.
- Explicitly introduce attribution theory to students and explain why attributing successes and failures to controllable causes leads to better outcomes.

Further Reading

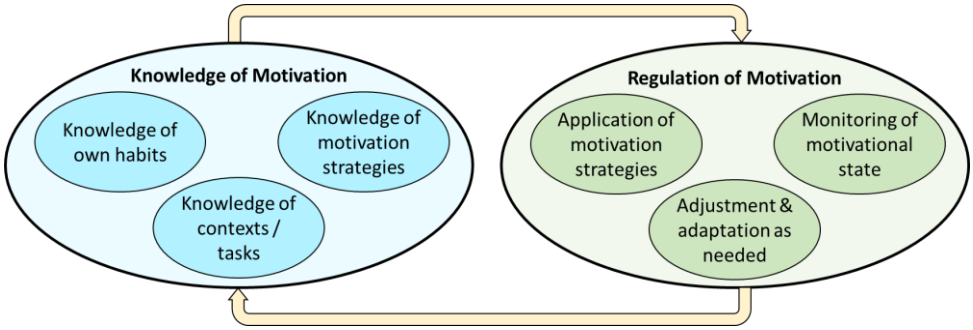
Jones, B. D. (2014). Attribution theory v2. Retrieved from https://www.youtube.com/watch?v=yE4uQ0fXy3A. Archived at https://perma.cc/Z3GL-S5FX.

Weiner, B. (2000). Intrapersonal and interpersonal theories of motivation from an attributional perspective. *Educational psychology review, 12*(1), 1-14.

Self-Regulation of Motivation

Applicable Contexts:
Helping students build knowledge and habits to regulate their own motivational states

About This Theory:
Self-regulation of motivation isn't so much a theory as it is a description of the processes used by people to monitor and regulate their own motivation. The idea of self-regulation of motivation has been around for a while but has only picked up steam in the educational psychology community in the last 5 or 6 years**.** These processes involve two major components: **knowledge** (of yourself and your habits, the task at hand, and strategies you can use to motivate yourself more effectively) and **regulation** (planning how you will motivate yourself, monitoring your motivational state, and adjusting strategies as needed.)



Strategies in the Classroom:
Instructors can help students self-regulate their motivation by giving them knowledge of strategies for regulation (see the table below) and providing avenues to reflect on their self-regulatory practices.

Strategy	Description
Self-consequating	Imposing positive or negative consequences upon oneself related to the completion of a task.
Goal-oriented self-talk	Having thoughts or statements that establish one's goals as mastery-oriented (or, at the very least, performance-approach-oriented.)
Interest enhancement	Finding ways to make an otherwise boring process more situationally interesting, such as by turning it into a game or introducing novelty, challenge, or creativity.
Environmental structuring	Changing your environment to reduce distractions or increase focus. Often used (and studied) as a supplement to other regulatory strategies.
Attribution control	Purposefully attributing successes and failures to things that help us maintain our motivation toward an activity, such as factors that are internal and controllable.
Proximal goal setting	Breaking down large tasks into smaller, more immediately accomplishable parts. Arguably one of the easiest self-regulation strategies for motivation.
Defensive pessimism*	Highlighting elements of your own unpreparedness, which (coupled with desire to succeed) inspires you to prepare harder. (*May harm long-term self-regulation.)
Efficacy self-talk	Having thoughts or statements that encourage you to believe that you are doing well or that your practice efforts will lead to greater competence.
Emotion regulation	Attempts to control your emotional responses in a way that increases your motivation for a task.

Further Reading
Wolters, C. A. (2003). Regulation of motivation: Evaluating an underemphasized aspect of self-regulated learning. *Educational Psychologist, 38*(4), 189-205. doi:10.1207/S15326985EP3804_1