

Are Our Strategies for Promoting Student Motivation Sufficient?

Donna Ellis, Director, Centre for Teaching Excellence
AND

Gordon Stublely, Associate Dean, Teaching, Faculty of Engineering

Opportunities and New Directions conference – April 30, 2015

Motivation – O.E.D.

- a) orig. *Psychol.* The (conscious or unconscious) stimulus for action towards a desired goal, esp. as resulting from psychological or social factors; the factors giving purpose or direction to human or animal behaviour. Now also more generally (as a count noun): the reason a person has for acting in a particular way, a motive.
- b) orig. *Psychol.* and *Sociol.* The general desire or willingness of someone to do something; drive, enthusiasm.

Motivation – Education

Motivation is “the process whereby goal-directed activity is instigated and sustained” (Schunk, Pintrich, & Meece, 2008, p.4)

**Motivation has a reciprocal relationship with learning:
“motivation influences learning and performance and what students do and learn influences their motivation” (ibid, p.5)**

“In the context of learning, motivation influences the direction, intensity, persistence, and quality of the learning behaviors in which students engage” (Ambrose, et al., 2010, p.69)

Pre-feedback

List one or two key activities or strategies you use to foster or encourage student motivation in a particular course you teach.

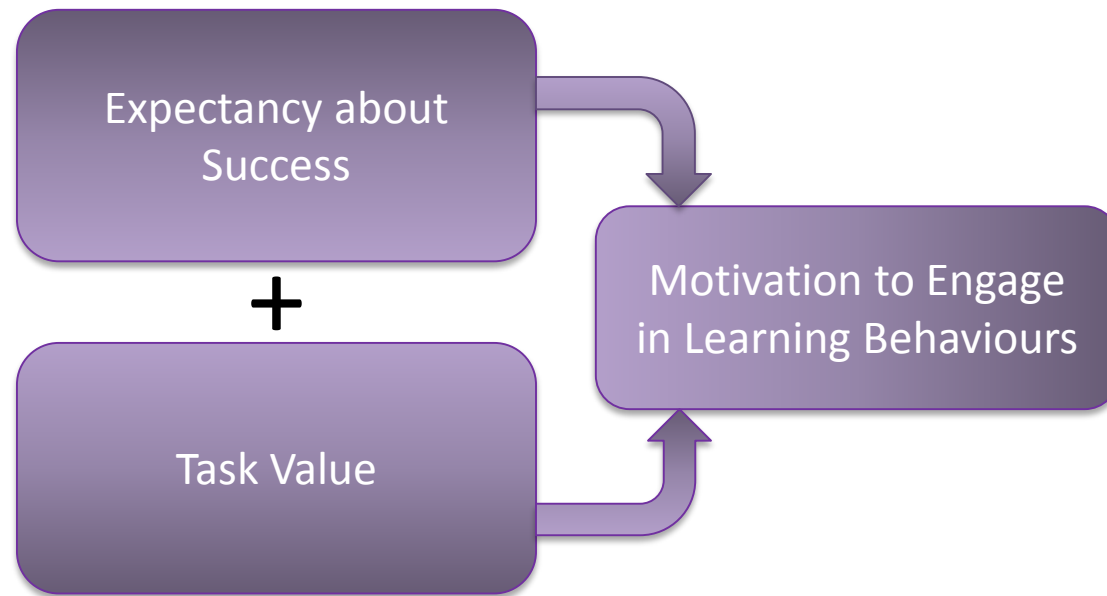
Historical Review

- **Drive Theories:** given inner “force” drives behaviour to regain balance
- **Behavior-Based Theories:** behaviour tied to consequences (reward/punishment)
- **Cognitive Theories:** internal perceptions affect behaviour

Svinicki, 2004 (psychology, education)

Amalgamated Model

- Based on three currently used motivation theories



(Adapted from Svinicki, 2004)

Key Questions for Students

- Can I do this task? (expectancy)
- Do I want to do this task and why? (value)

Expectancy Determined By:

Element	Description	Sample Instructional Strategies
Self-efficacy	Capability to succeed	Use diagnostic tests Have students identify what they need to work on
Difficulty	Appropriate level of challenge	Talk to your colleagues Get student feedback on level of difficulty
Prior experience	Build on past success and connect past work	Provide chance for early success Connect tasks to past tasks
Encouragement	Positive talk and modeling	Tell students they can succeed Showcase past student work Give timely, targeted feedback
Beliefs related to learning	General self-confidence as learners, nature of ability, origins of success/failure	Contextualize poor results Model a malleable mindset Help students attribute success to effort

Task Value Determined By:

Element	Description	Instructional Strategies
Intrinsic value	Interesting material and tasks	Use real-world examples Provide authentic tasks Show your passion for subject
Utility value	Short and long term use	Teach content and skills JIT Identify transferable skills Have students reflect on use
Need satisfaction	Need to succeed/avoid failure	Provide clear expectations Work problems in class Give option to resubmit work
Choice and control	Independent decisions	Trust & respect your students Give students choices Offer hints vs telling
Influence/ opinions of others	Do what others value	Reward what you value Model what you value Help students connect with peers

Engineering Workshop

- Group Discussions:
 - What are your questions about student motivation? (16 participants)
 - What activities have you used to promote student motivation (5 small groups)
- Two components: Task Value + **Expectancy**
- Reflection: Plan for adapting new strategy

Reported Strategies: Summary

Faculty	Task Value	Expectancy	Total
Eng (Oct14)	4	(2) ¹	4 (6)
AHS	8	1	9
Arts	18	4	22
Eng	17	7	24
Env	4	1	5
Sci	6	4	10
Other	16	2	18
Total ²	69	19	88

1: Suggestions from group of student participants

2: Totals exclude Eng(Oct14) workshop

Common Reported Themes

Strategy	Frequency
Foster relevance : real life application, everyday life, career situations	40
Foster choice	11
Foster interaction with peers and instructors	10

Session Wrap-up

- Amalgamated model of motivation:
 - Value of task
 - Expectancy of success
- Teaching strategies to address both components
- *To what degree are **BOTH** components addressed in our teaching strategies?*

Contact Information

Donna Ellis, EV1 320, ext. 35713
donnae@uwaterloo.ca

Gordon Stublely, CPH 3677, ext. 32875
stublely@uwaterloo.ca

CTE Teaching Tips: Motivating Our Students

References

1. Ambrose, S.A., Bridges, M.W., DiPietro, M., Lovett, M.C., & Norman, M.K. (2010). *How learning works: Seven research-based principles for smart teaching*. San Francisco, CA: Jossey-Bass.
2. Reeve J., Ryan, R., Deci, E.L., & Jang, H. (2008). Understanding and promoting autonomous self-regulation: A self-determination theory perspective. In D.H. Schunk & B.J. Zimmerman (Eds.) *Motivation and self-regulated learning: Theory, research, and applications* (pp.223-244). New York, NY: Lawrence Erlbaum Associates.
3. Schunk, D.H., Pintrich, P.R., & Meece, J.L. (2008). *Motivation in education: Theory, research, and applications*. 3rd ed. Upper Saddle River, NJ: Pearson Education.
4. Svinicki, M.D. (2004). *Learning and Motivation in the Postsecondary Classroom*. San Francisco, CA: Jossey-Bass.

WATERLOO

WATERLOO | ENGINEERING



Expectancy Determined By:

Element	Description	Instructional Strategies
Self-efficacy	<p>Capability to succeed</p> <ul style="list-style-type: none"> Faculty need to help students accurately assess their potential for success and learn skills to be successful 	<ul style="list-style-type: none"> Clearly identify pre-reqs Provide guidance for remediating needed skill/knowledge Use diagnostic tests so students see what they don't know Provide clear course expectations (LOs, rubrics) so students can see where they may need help Articulate and have them practice effective study strategies Have students articulate what they need to work on and do differently
Difficulty	Appropriate level of challenge	<ul style="list-style-type: none"> Use diagnostic tests so you know what students can do Review syllabi (pre-reqs and past versions of same course) Talk to your colleagues Set assignments that are challenging but not impossible Get student feedback during term
Prior experience	Build on past success and connect past work	<ul style="list-style-type: none"> Review pre-req syllabi so know skills taught Provide early success opportunities (short, low % assess'ts) Scaffold ass'ts to build skills Analyze task requirements and connect to past tasks (you do, or can do with students)
Encouragement	Positive talk and modeling	<ul style="list-style-type: none"> Tell students you believe they can succeed Showcase past student work Be approachable about providing help as needed Give hints to guide Give timely, targeted feedback & mark consistently Model effective learning strategies
Beliefs related to learning	General self-confidence as learners, nature of ability, origins of success/failure	<ul style="list-style-type: none"> Tap into general learning confidence to help contextualize a poor result Nature of ability – model a malleable mindset, focus on effort Attribution theory – help students learn to attribute success to studying, time management, and hard work and have them make choices to avoid blaming others for poor results

Task Value Determined By: (Part 1)

Element	Description	Instructional Strategies
Intrinsic value	<p>Interesting material and tasks</p> <ul style="list-style-type: none"> Faculty need to get students intrigued 	<ul style="list-style-type: none"> Connect the material to students' interests (or have them do this) Use real-world examples & focus on application, including in assessments Provide authentic tasks to engage interest Use novel examples Vary teaching methods and materials Pose questions & identify paradoxes in discipline Show your interest in/passion for your subject
Utility value	<p>Short and long term use (at school, in life, in future career)</p>	<ul style="list-style-type: none"> Teach content and skills JIT before use Provide authentic tasks to demonstrate relevance Explain role of course within larger curriculum Identify transferable skills students are learning and explain how used in careers Have students reflect on what learned in course/ass't and future utility
Need satisfaction	<p>Need to succeed/avoid failure</p> <ul style="list-style-type: none"> Try to influence how students define "success" = learning with all its mess – focus on mastery (learning) vs performance goal (perform better than others) orientation 	<ul style="list-style-type: none"> Provide clear instructions and rubrics so expectations are clear Offer additional resources for those who want to master material Give option to resubmit work or submit draft for comment Have students compete against self – use self-reflection to do this Work out problems in class, mistakes & all Ensure assessments promote learning

Task Value Determined By: (Part 2)

Element	Description	Instructional Strategies
Choice and control	<p>Independent decisions</p> <ul style="list-style-type: none"> Encourages students to work harder to reach outcomes, take more risks & accept challenge More control = more vested in outcomes & better ability to see consequences of behaviour Little freedom of choice can lead students to abdicate responsibility for their behaviours to the teacher 	<ul style="list-style-type: none"> Trust your students Give students choice in products or process of learning (choose project topic, set schedule for deliverables, choose medium to convey end product) Engage students in setting boundaries for assigned work Respect students' opinions and questions Give rationales for instructional decisions so students learn what's under your control (e.g., marks for ass'ts, safety training) Offer hints vs telling students what to do
Influence/ opinions of others	Do what others value	<ul style="list-style-type: none"> Clearly articulate what you value through expectations and feedback Reward what you value (e.g., no/low consequence for risk-taking by grading process vs product) Model what you value (e.g., coming to class prepared, persisting with a problem, admitting what you don't know and finding an answer) Show your own enthusiasm for learning Help students connect with peers – may engage more if peers engage = being part of a community (fits with affiliative and approval needs too)