

# Inspiring Learning

How the Science of Motivation Can Improve Your Teaching

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Today I want to talk to you all about motivation, specifically learner motivation. We're all aware of the important discussions surrounding physician well-being and burnout. Though there are lots of ways to address these issues, improving learner motivation is one of them.

## **Learning Outcomes**

**Identify some psychological understandings of motivation**

**Summarize self-determination theory and how it relates to learners**

**Recognize modifiable factors in learner motivation**

**Articulate applications of autonomy-supportive teaching**

# Motivation



**“why people think and behave as they do”**

What is motivation? “Why people think and behave as they do.” This is influenced by the self and interactions with the environment.



Individuals who report greater motivation are less burned out, depressed, stressed and generally report higher feelings of self-actualization and well-being.



How do we understand motivation? The most well-known is Maslow's hierarchy of needs.

Cause every good med-ed talk needs a pyramid diagram.

This postulates that people must have basic needs met (food, water, safety belonging) in order to achieve their potential

**1. Self-theories of ability**

**2. Achievement goal theory**

**3. Self-determination theory**

Since then, motivation science focuses on 3 primary theories: (1) self-theories of ability



Which are known to most of us as the idea of a fixed vs growth mindset.

1. Self-theories of ability

**2. Achievement goal theory**

3. Self-determination theory

The second is achievement goal theory





Which says that an individual's motivation is influenced by some degree of accomplishment which can be task or ego oriented. This is generally discussed in education in terms of assessments.

1. Self-theories of ability
2. Achievement goal theory
- 3. Self-determination theory**

And the third is self-determination theory, which has the most practical applications to the learning environment.



Self-determination theory focuses on the social conditions that promote or inhibit people's motivation. It posits that human beings are active creatures with natural tendencies towards exploration and learning, taking on challenges, cultivating social relationships, and integrating new experiences into a coherent sense of self.

(originally described by Deci and Ryan in the 1970s)

## **Intrinsic Motivation**

“I want to do it because I find it fulfilling”

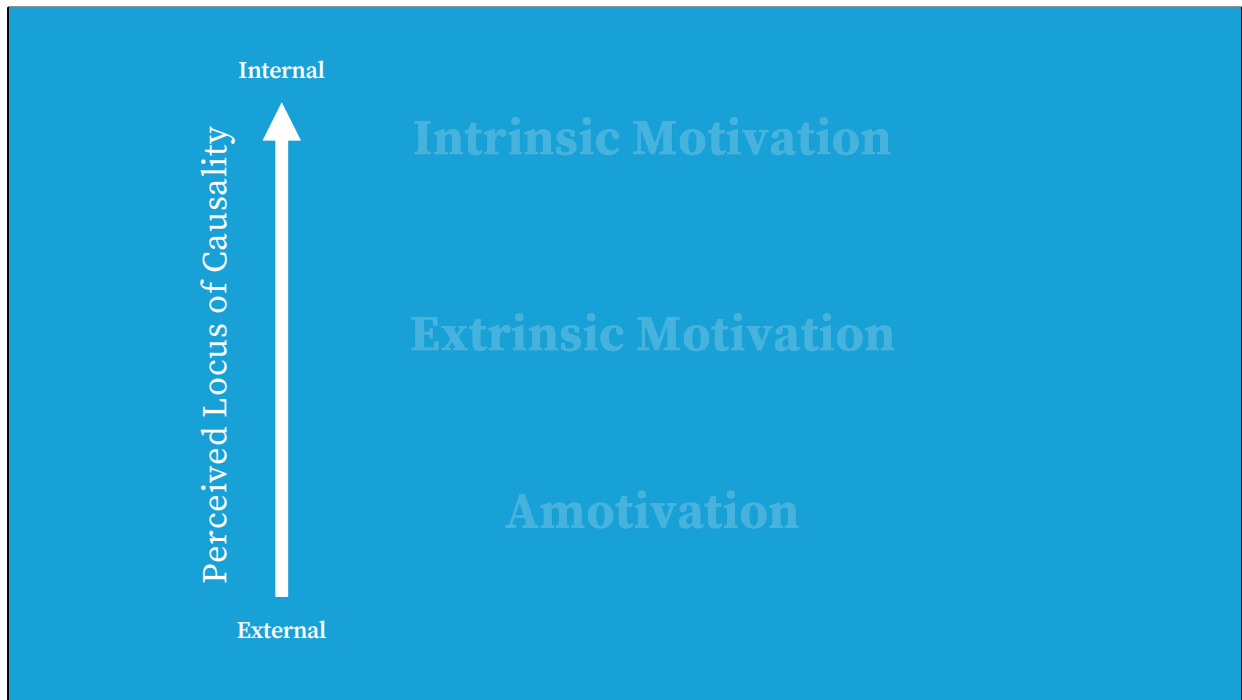
## **Extrinsic Motivation**

“I will do it for a good reason”

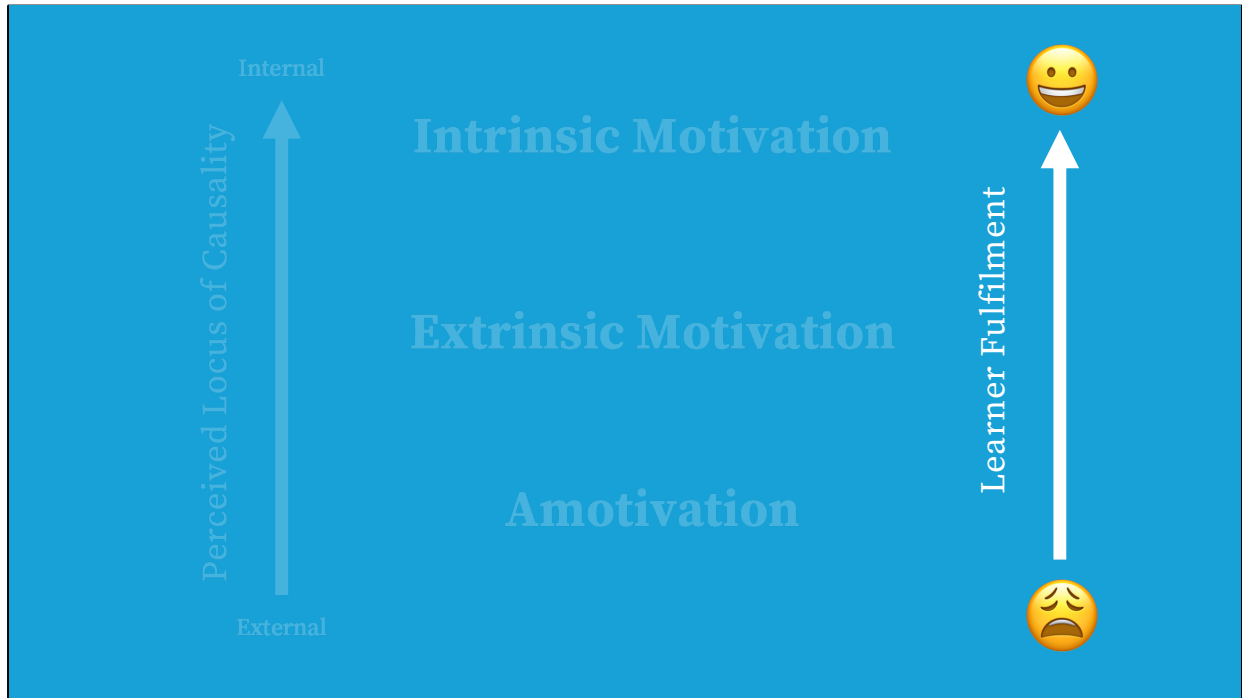
## **Amotivation**

“I don't want to do it”

Self-determination theory recognizes motivation on a continuum from amotivation, to extrinsic motivation (with relative degrees of internalization) to intrinsic motivation (the most autonomous).

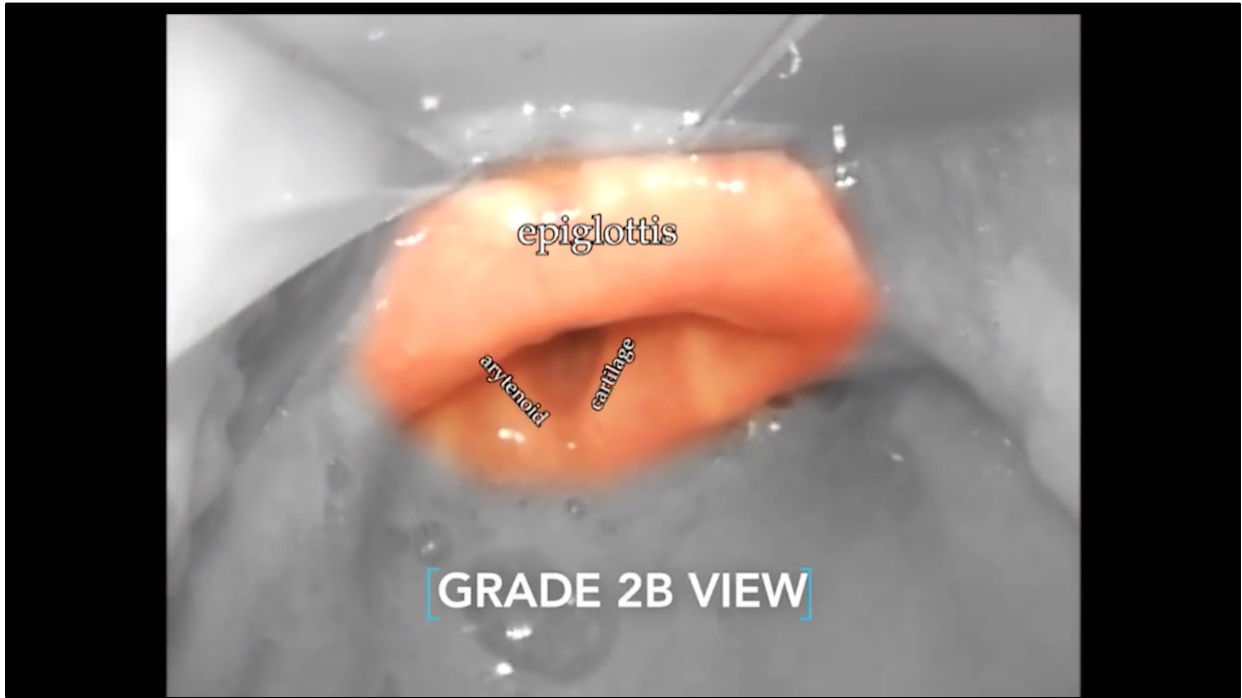


This continuum is arranged by where the “perceived locus of causality” is. This is just fancy terminology that says where one’s behaviors are governed from: forces outside of oneself (external) or forces within oneself (internal)

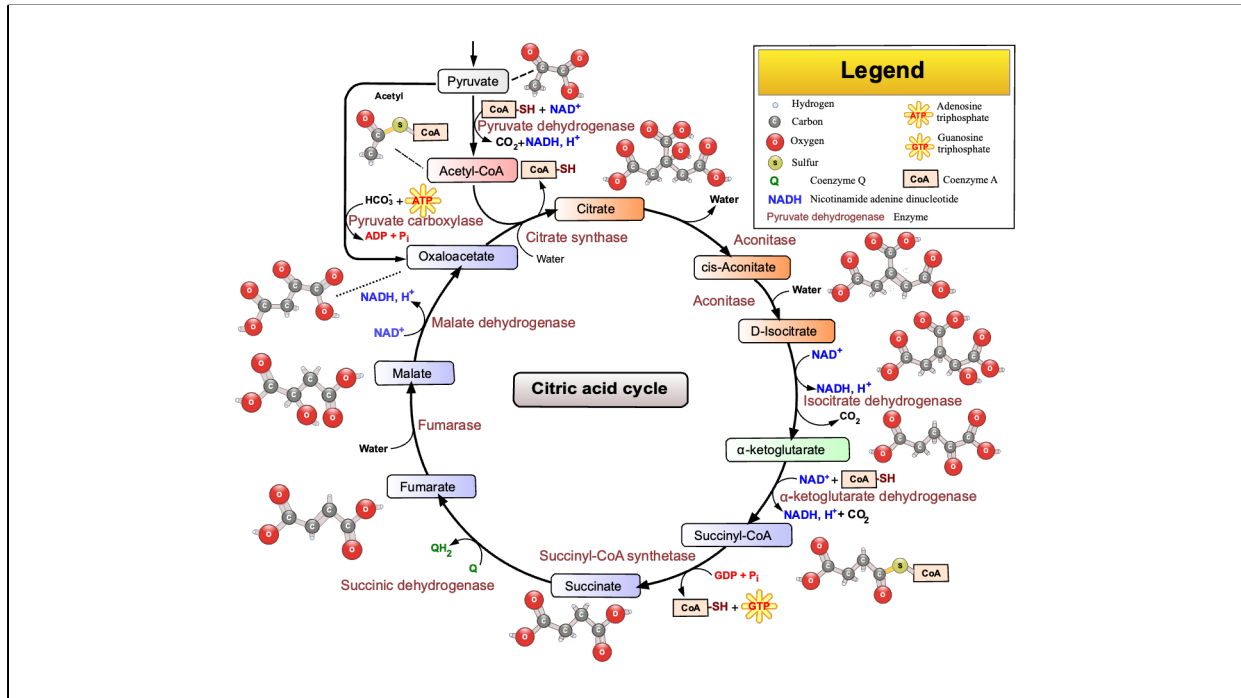


And the more internal the locus of causality, the more learners tend to be engaged, and experience greater feelings of purpose and psychological well-being.

The highest level here is intrinsic motivation, which is a great, but unrealistic aspiration. We hope that some elements of teaching will be interesting and engaging to learners, but it's impractical to imagine that everything will be super fulfilling. Most of us, I imagine can relate to this idea.



There are things we like learning cause they're interesting



and there are things we have to learn for a good reason. We are extrinsically motivated.

But, we can influence how good the reason is, by changing the perceived locus of causality for learners.



## **Extrinsic Motivation**

“I will do it for a good reason”

A few more terms and then we'll see how this fits together.

Extrinsic motivation exists on a spectrum

## **Extrinsic Motivation**

“I will do it for a good reason”

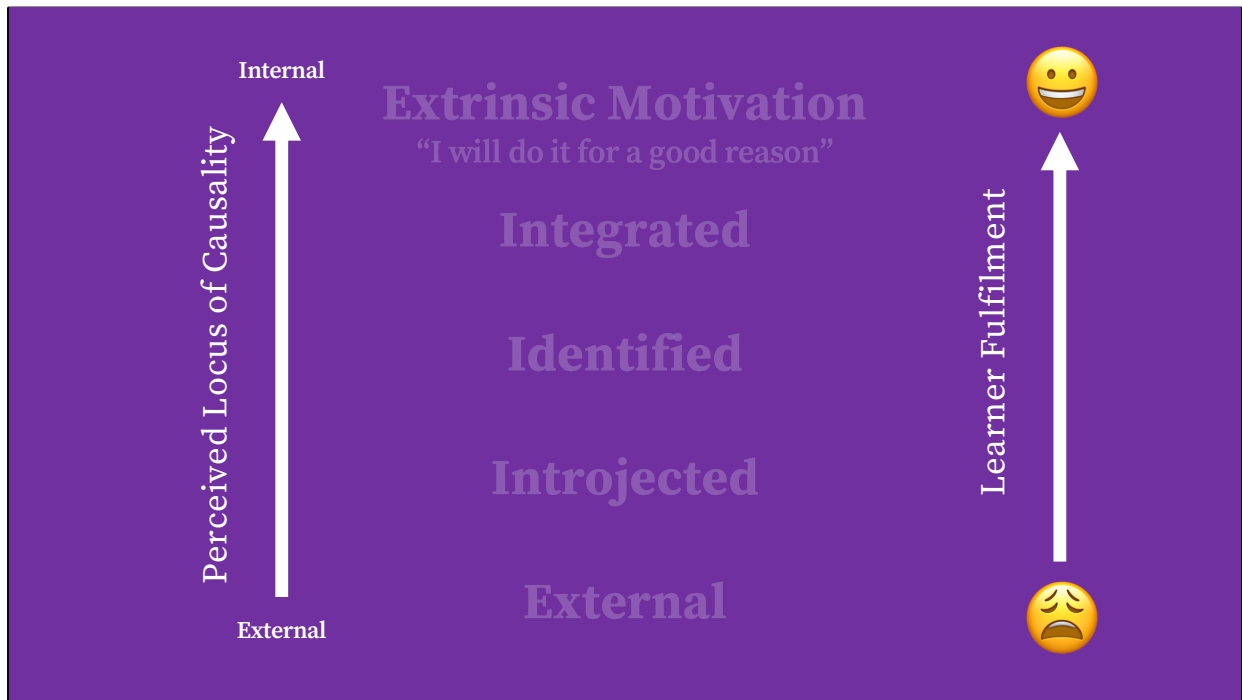
**Integrated**

**Identified**

**Introjected**

**External**

Within extrinsic motivation we can describe how the motivation is regulated. These are *external, introjected, identified, and integrated*.



And these are ranked again by the perceived locus of causality and therefore learner fulfilment.

## **Extrinsic Motivation**

“I will do it for a good reason”

**Integrated**

**Identified**

“I will learn it to get  
honors on this rotation”

**Introjected**

**External**

External regulation is when learners react to a concrete reward or punishment.

## Extrinsic Motivation

“I will do it for a good reason”

**Integrated**

**Identified**

“I will learn it to impress  
my attending”

**Introjected**

**External**

Introjected is a step up where the focus is on approval. They want to perform well for recognition or competition.

## Extrinsic Motivation

“I will do it for a good reason”

Integrated

**Identified**

“I will learn it to take  
better care of patients”

Introjected

External

Identified is the next step up, where they see the value or personal importance of an activity.

## Extrinsic Motivation

“I will do it for a good reason”

**Integrated**

**Identified**

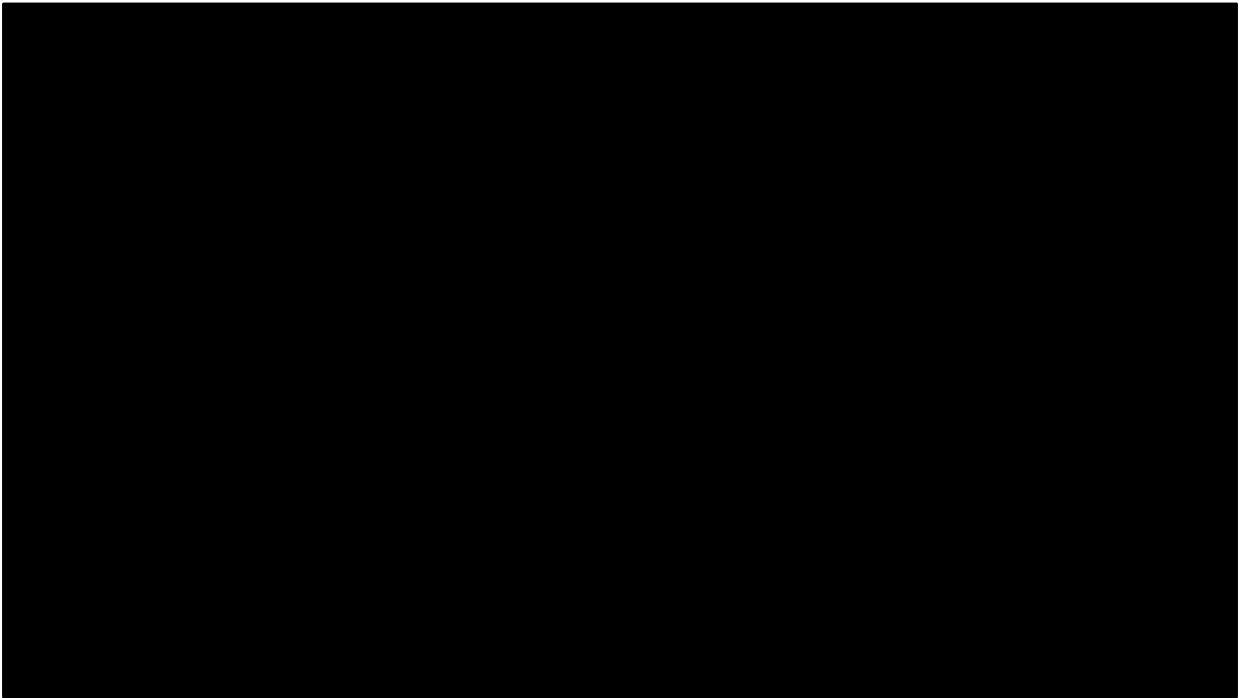
“I will learn it to be a  
better doctor”

**Introjected**

**External**

Integrated regulation is when value has been integrated into one's personal identity.

This is a lot of what professional identity formation is about, integrating the rules, values, and norms of the medical profession to form an integrated regulation of professional behavior. And even if we don't get learners to be intrinsically motivated all the time, moving the perceived locus of causality to more internal will get them closer to integrate the learning process into their identity and leads to similarly higher levels of satisfaction and well-being.



So how do we move the perceived locus of causality from external to internal?



# Self-Determination Theory

Self-Determination theory covers this as well. For the drives of any activity, learning in our case, to become more internally-motivated. Three psychological needs need to be met.

## Self-Determination Theory

**Autonomy**

**Competence**

**Relatedness**

These are autonomy, competence, and relatedness.



Autonomy is the need for agency and to feel one's choices are volitional rather than feeling pressured or controlled.

In other words, that the perceived locus of causality is internal.



Competence is the need to feel capable and effective, which occurs when one overcomes challenges and masters skills.

## **Relatedness**



Relatedness is the need to feel a sense of connectedness and belonging with others, which is felt when one feels understood, valued, and respected.

## **Autonomy-Supportive Teaching**

Achieving this kind of motivation in education can be accomplished through autonomy-supportive teaching.

This is the term used in the literature, but it really should be called self-determination-theory-guided teaching as it focuses on optimizing competence and relatedness as well.

**How do you currently support a learner's autonomy?**

What do you do right now to support a learner's autonomy? Does it change based on what year of residency they are in?

Notice I didn't say "provide a learner with autonomy"



Autonomy is often described as inversely related to supervision. A lot of competency literature has as the goal “autonomous, independent practice.”

Younger residents, more supervision, less autonomy.  
Senior residents, less supervision, more autonomy.

There is a problem here with conflating independent practice and autonomy. They are not the same thing. And when resident’s ask for more autonomy, it doesn’t necessarily mean less supervision. Learners can be supervised closely and feel autonomous or be not



supervised at all and have their autonomy undermined.

# Micromanager

“I eyeballed that patient and put in some orders, but why don’t you tell me your plan.”

Lets look at some specious extremes of supervision, the “micro-manager” vs the “absentee attending.” The micromanager who dictates every decision clearly doesn’t allow for autonomy.

# Absentee

“You’re in charge.”

Some learners may react well to this approach, but others may want more support, but not feel like they were given the opportunity to ask for it.

Also, a big part of autonomy is supporting the decision making process, otherwise learners can feel unsure if they are making the right choices for the right reasons.



A better way of viewing this is on a spectrum of “hands on” to “hands off” supervision.

## **Hands-On (Autonomy Supportive)**

Hands-on supervision that supports autonomy is a faculty member who assesses learner's needs, challenges learners appropriately, pushes learners to make decisions and probes their reasoning and asks permission to step in and role model clinical care. In this way, hands-on, autonomy supportive supervision is a coaching-type relationship.

**“Can we go examine that patient together, so we can talk through some exam techniques?”**

## **Hands-Off (Autonomy Supportive)**

In hands-off supervision, the interaction should be like working with a colleague. Offering support as needed, and letting learners know that you're available and that you support their decisions (even if they differ from what you would do). This is often called "relational autonomy"

**“I want you to manage your own patients, and I will support your management decisions, as long as they are evidence-based and within the standard of care.”**

See the difference? Admittedly, this is subtle, but the difference is in the degree of support provided.



# Competence

Now we're going to talk about supporting learner competence.

## **Give honest feedback**

Set optimal levels of challenge

Coach through problems

Give honest feedback. Feedback can be given in a manner that supports autonomy by providing choice, acknowledging feelings, and helping learners find their own answers and solutions.

Give honest feedback

**Set optimal levels of challenge**

Coach through problems

Set optimal levels of challenge for learners by not putting them into (or withholding them from) situations. Set them up for success.

Give honest feedback

Set optimal levels of challenge

**Coach through problems**

If a learner is struggling with something, help identify barriers to facilitate success and talk about ways to overcome them. Promote self-monitoring.

# Relatedness

Finally, relatedness.

The main point here is considering learners human psychological needs, and allowing learners more freedom to be their authentic selves and show vulnerability

**Use empathetic listening**

**Make learners feel valued**

**Demonstrate empathy and humility**

Use empathetic listening (displaying respect, trust and collaboration).

Use empathetic listening

**Make learners feel valued**

Demonstrate empathy and humility

Make learners feel valued. Expressions of thanks for their assistance or meaningful praise for things well done.

Use empathetic listening

Make learners feel valued

**Demonstrate empathy and humility**

Demonstrate empathy and humility. Show that you're human too and make mistakes.



## Take Home Points

Learner motivation affects well-being and achievement

Self-determination theory provides a framework  
to understand and modify motivation

Motivation is affected by autonomy, competence, and relatedness

Consider autonomy-supportive teaching to optimize these factors

### Take Homes

Consider autonomy-supportive teaching that focuses on learners needs for autonomy, competence, and relatedness.

Meeting these needs promotes more internalized behavior regulation which can improve well-being and success.



Here's hands on (autonomy supportive) teaching