The Impact of Professional Goals on Students' Educational Experiences: A Longitudinal Case Study from Engineering

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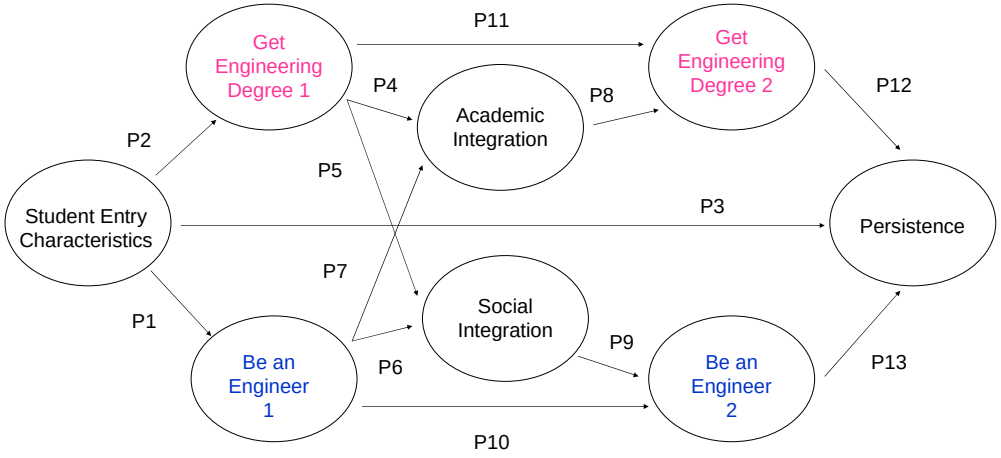
RESEARCH QUESTIONS

How can Tinto's model illuminate paths to persistence at Mountain Tech? How do students' intrinsic and extrinsic motivational factors intersect Tinto's model?

FRAMEWORK

Extrinsic Motivation (Get an Engineering Degree): engineering as a basis for other careers or means to financial rewards

Intrinsic Motivation (Be an Engineer): express sincere interest in what they perceive engineers as doing



Schematic of Tinto's 13 primary propositions adapted from Braxton, Sullivan and Johnson (1997) to show engineering persistence.

PRELIMINARY FINDINGS

Tinto framework highlights paths to persistence for MT students.

Longitudinal evaluation shows student experiences reinforce initial commitment goals.

Intrinsic interest had more positive academic experience.

	Initial Commitment to Major	Reinforced Commitment to Major	Affective Experience
Extrinsic Motivation	"I'm in petroleum engineering partially because of the monetary rewards, I think it'll get me-, and I think it's interesting obviously…."	When asked about experiences that reaffirmed his commitment to engineering he answers, "Just work every single day. I love it."	"I think some of the things that are kind of pointless. Up until my rock properties class the labs I've taken have been one hundred percent pointless. Zero effective. Our physics lab was supposed to be to learn how to tinker with equipment and get it to work or something and all we learned was how to B.S. a lab and get it done…..I don't think the labs are effective at all. Right up until now. Because now I'm working on labs that I will be working on in my professional life."
Intrinsic Motivation	"Oh well I enjoy a lot of the, well process part of engineering, you know. Figuring out how to do something, figuring out new ways to do it, and you know materials has a lot of innovation in it…."	[I]: Do you have any experiences that confirmed your decision to major in engineering? [Bill]: Well I think this whole senior project thing has really just kind of said hey, yah. That's, that's what you're doing. I mean I've used all the things that I've learned on the project and I like it. [I]: Have you had any experiences that raised doubt about your decision? [Bill]: Not really. I mean it, I think I'm where I need to be.	"And then I think for the most part my classes have been enjoyable. I can definitely think of classes I hate and I can think of semesters that were just horrible and I thought I'm transferring out to another school because there was just so much work. But looking back on it, I don't think, I wouldn't have changed it for the world."

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