

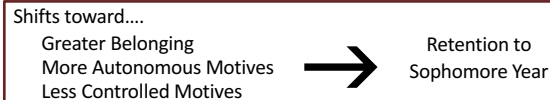
# Shifts in Motivation and Belonging as Predictors of College Student Retention: A Mixed-Methods Approach

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## BACKGROUND

- College student attrition is an issue of longstanding concern (Tinto, 1993).
- Academic motivation may be an important protective factor (Robbins et al., 2004) especially when motives are **autonomous** (e.g., self-directed) (Ratelle et al., 2007; Vallerand & Bissonnette, 1992).
- It is unclear how **controlled** motives (e.g., pressure) affect retention, with studies showing both risk (Baars & Arnold, 2014; Vanthournout et al., 2012) and protective functions (Meens et al., 2018).
- Mixed findings may result from an overreliance on motivation data collected at college entry. **Initial levels of motivation may be less meaningful than the trajectory of motivation over time.** We focused on *motivational shifts* over the first semester as predictors of retention.
- Shifts in students' sense of belonging may also be critical because:
  - Belonging → Retention (Hausman et al., 2009; Strayhorn, 2012)
  - Belonging → Autonomous Motives (Freeman et al., 2007; Zumbrunn et al. 2014)

## HYPOTHESIS



## METHODS

- 471 first-term students (across 3 cohorts) at a liberal arts college completed surveys at the start and end of their first semester to assess:
  - Autonomous Motives (Vansteenkiste et al., 2009)  
"I am studying because I want to learn new things."
  - Controlled Motives (Vansteenkiste et al., 2009)  
"I am studying because I'm supposed to do so."
  - Belonging (Lounsbury & DeNeui, 1996)  
"I really feel like I belong here."
- At semester's end, students also provided brief written narratives explaining changes in their motivation.
- Registration status for sophomore year was collected from institutional records.

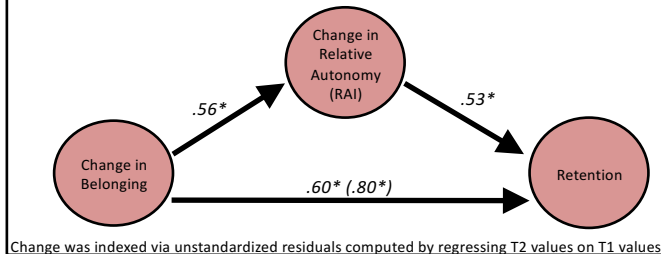
## QUANTITATIVE ANALYSES

- A logistic regression analysis showed that **retention status** was significantly predicted by growth in belonging and autonomous motives but reduction of controlled motives, consistent with hypotheses.

	B	SE B	Odds Ratio (95% CI)
Step 1: $\chi^2(4, N = 421) = 31.90, p < .001$			
T1 Autonomous Motives	-.21	.35	.81 (.42 - 1.61)
T1 Controlled Motives	-.08	.25	.93 (.57 - 1.50)
T1 Belonging	.60	.26	1.83 (1.09 - 3.05)
First-Year GPA	1.25**	.25	3.50 (2.16 - 5.69)
Step 2: Block $\chi^2(3, N = 421) = 25.86, p < .001$ ; Full Model $\chi^2(7, N = 421) = 57.76, p < .001$			
T2 Autonomous Motives	.91*	.37	2.48 (1.21 - 5.07)
T2 Controlled Motives	-.90**	.32	.42 (.22 - .76)
T2 Belonging	.83**	.28	2.29 (1.33 - 3.93)

Note: Registered for sophomore year (persisters) n = 390; Not registered for sophomore year (dropouts) n = 31. Autonomous Motives, Controlled Motives, and Belonging were scored from 1 (not at all true/important) to 5 (very true/important). GPA was calculated on a standard 0 to 4 scale. \* p < .05. \*\* p < .01.

- A mediation analysis showed that shifts in the proportion of autonomous to controlled motives partially mediated (29.69%) the effect of belonging on retention status, Sobel's test = 3.35, p < .001.



## QUALITATIVE ANALYSES

- Thematic analysis was used to code and interpret students' narrative responses.
- Coding was done while blind to retention status.
- As shown in Figure 1:
  - Dropouts were more likely to report **motivational problems** than Persisters.
  - There was a trend for Dropouts to report more **issues with the social context** and less **practical success** as they adjusted to the collegiate environment.

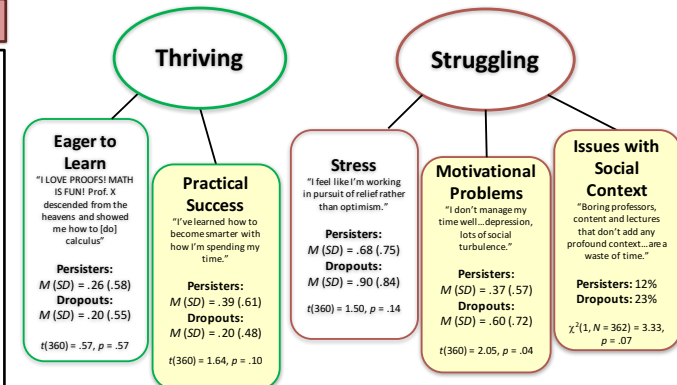


Figure 1: Themes highlighted in yellow indicate significant or marginally significant differences between Persisters (n = 332) and Dropouts (n = 30).

## DISCUSSION

- Students' subjective sense of belonging and autonomous motives protected against dropout and controlled motives raised the risk.
- Motivational change* was a better predictor of retention than *static levels* at college entry, reflecting a dynamic and situated view of motivation that may be fruitful in future research on college retention.
- Qualitative data provided **triangulation** in that dropouts reported more motivational problems (e.g., loss of interest) and issues with the social context (e.g., not fitting in, disliking institutional culture).
- Qualitative data provided **complementarity** in that retention groups differed not only in terms of motivational and contextual experiences, but also the **practical aspects of adjusting to college.**

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