

## Background

Research in educational psychology has extensively explored the nature and effects of achievement goals in students (Senko et al., 2011). However, the examination of the instructional goals of teachers is relatively rare but nonetheless important as teachers' goals can greatly influence their classroom behaviors and teaching quality (Frenzel et al., 2009). Ames (1992) defined an *achievement goal* as "the purpose of achievement behaviors" (p. 261). She further suggested that goals involve the integration of affect and cognition that, in turn, influences an individual's actions. Therefore, teachers' goals should be related to not only other cognitions, but also behaviors that impact their students. Although the relationship between teachers' goal orientations and instructional behaviors has been studied (e.g., Butler, 2008; Schutz et al., 2007), the effects of their goals and behaviors on student outcomes are relatively unexplored. The current study was based on Butler's achievement goal theory (2007, 2012) and evaluate a structural equation model in which the direct effects of teachers' goal orientations (5 types) on the perceived behaviors of their students was assessed, as well as the indirect effects of instructional goals on perceived students' behaviors through teachers' classroom behaviors.

## Method

### Participants and procedures

Practicing teachers ( $N = 536$ ) from the Canadian provinces of Ontario and Quebec were recruited through teacher unions and school principals to complete a web-based questionnaire including demographic items, as well as measures assessing teachers' goals, teaching practices, and perceived students' classroom behaviors. The participants were composed of teachers from primary schools (51.1%,  $n = 258$ ), secondary schools (42.8%,  $n = 216$ ), and CEGEP (Quebec equivalent of grades 12-13; 6.1%,  $n = 31$ ). The mean age of teachers was 41.89 years ( $SD = 9.95$ ), 85.2% were female, teachers' ethnicities were predominantly Caucasian (90.6%; followed by Asian, 4.8%, Caribbean, 2.2%, and African, 1.6%), and most had a bachelor's degree (72.5%) or a master's degree (24.2%). The mean years of teaching experience was 12.87 ( $SD = 8.64$ ).

## Method (cont.)

### Measures

**Teachers' goal orientations.** Butler's (2007, 2012) scales assessing five types of instructional goals consisted of 12 items in total and evaluated *mastery goals* ( $M = 9.21$ ,  $SD = 1.17$ ,  $r(489) = .56$ ), *ability approach goals* ( $M = 5.97$ ,  $SD = 2.31$ ,  $r(478) = .54$ ), *ability avoidance goals* ( $M = 4.74$ ,  $SD = 2.14$ ,  $r(484) = .52$ ), and *work avoidance goals* ( $M = 3.40$ ,  $SD = 1.73$ ,  $r(481) = .49$ ) using two representative items reported in Butler (2007). *Social goals* were also evaluated using a 4-item, 5-point Likert scale from Butler (2012;  $M = 15.49$ ,  $SD = 3.25$ ,  $\alpha = .82$ ; 1 = *do not agree at all* to 5 = *agree completely*).

**Teaching effectiveness.** Midgley et al.'s (2000) scales were used to assess teachers' teaching effectiveness, and categorized instructional methods into *mastery approach* (4 items;  $M = 15.62$ ,  $SD = 2.66$ ,  $\alpha = .64$ ) and *performance approach* (5 items;  $M = 10.39$ ,  $SD = 3.66$ ,  $\alpha = .71$ ). The Likert scale was anchored by 1 = *strongly disagree* and 5 = *strongly agree*.

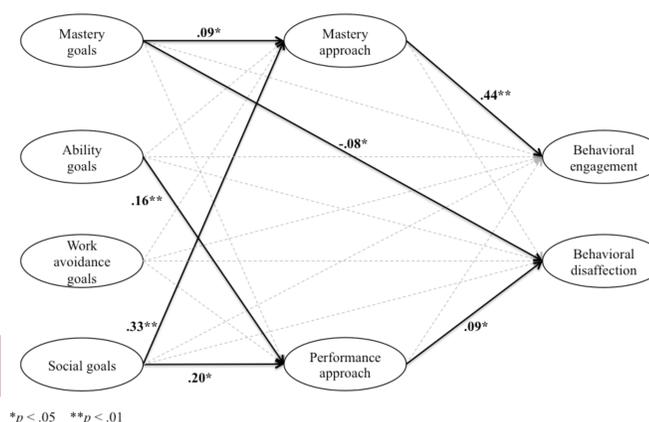
**Perceived students' classroom behaviors.** Selected items were adopted from a recent questionnaire by Skinner (in press) originally designed to assess teachers' perceptions of classroom engagement and disaffection in their students. For the purposes of this study, only the items examining students' behavioral engagement ( $M = 14.86$ ,  $SD = 2.48$ ,  $\alpha = .78$ ) and behavioral disaffection were assessed ( $M = 10.83$ ,  $SD = 2.84$ ,  $\alpha = .80$ ), with each variable consisted of five questions. Each measure was rated on a 4-point Likert scale ranging from 1 = *not at all true* to 4 = *very true*.

## Analysis

Due to observed multicollinearity between teachers' *ability approach goals* and *ability avoidance goals*, indicated by a strong correlation between the latent variables,  $r(476) = .65$ ,  $p < .01$ , and Heywood cases in the SEM analyses, items assessing these goals were combined to load onto a single latent variable – *ability goals* (collapsing the approach/avoidance distinctions). The resulting SEM model was then assessed to evaluate the direct and indirect effects of teachers' achievement goals on their teaching practices, and their perceived students' classroom behaviors.

## Results

The hypothesized model fit the data well (CFI = .906, TLI = .923, RMSEA = .039). Direct effects of goals on students' classroom behaviors were observed, with teachers' *mastery goals* negatively predicting students' behavioral disaffection (-.08). Teachers' *mastery goals* also significantly and positively predicted mastery-oriented teaching approaches (.09), whereas *ability goals* positively predicted performance-oriented approaches (.16). Higher levels of *socials goals* significantly predicted greater levels of both mastery-oriented teaching approaches (.33) and performance-oriented approaches (.20). Finally, teachers' instructional approaches significantly predicted students' classroom behaviors, with higher levels of teachers' mastery approaches predicting greater perceived behavioral engagement in students (.44) and performance-oriented teaching approaches predicting higher levels of students' behavioral disaffection (.09).



## Discussion

The results of the present study provide empirical support for our hypotheses that teachers' endorsement of instructional goals not only directly influence their classroom practices, and the perceived behaviors of their students, but also indirectly influence their perceived students' behaviors through their teaching activities.

## Discussion (cont.)

More specifically, whereas teachers' mastery goals directly predicted lower student disaffection and indirectly led to greater student engagement via mastery-oriented teaching, teachers' ability goals were found to only *indirectly* predict student disaffection through the use of performance-oriented teaching techniques.

Our results regarding teachers' social goals also underscore the importance of work by Butler (2012) in which social dynamics are incorporated into teachers' instructional goals. Further, in addition to demonstrating the benefits of teachers' social goals on student engagement through mastery-oriented instruction, our results also show social goals to be a double-edged sword in also positively predicting performance-oriented teaching methods that tends to result in behavioral disaffection in students.

Taken together, these findings underscore the importance of evaluating teachers' achievement goal orientations from a multi-faceted and mediational perspective, accounting for the empirical redundancy between them (e.g., ability goals), and highlight the need for future studies exploring the ambivalent effects of teachers' social goals on instructional methods, as well as objective measures of student engagement.

## References

- Ames, C. (1992). Classrooms: Goals, structures and student motivation. *Journal of Educational Psychology, 84*, 261-271.
- Butler, R. (2007). Teachers' achievement goals and associations with teachers' help-seeking: examination of a novel approach to teacher motivation. *Journal of Educational Psychology, 99*, 241-252.
- Butler, R. (2012). Striving to connect: Extending an achievement goal approach to teacher motivation to include relational goals for teaching. *Journal of Educational Psychology, 104*(3), 726-742. doi:10.1037/a0028613
- Butler, R., & Shibaz, L. (2008). Achievement goals for teaching as predictors of students' perceptions of instructional practices and students' help seeking and cheating. *Learning and Instruction, 18*, 453-467.
- Frenzel, A. C., Stephens, E. J., & Jacob, B. (2009). Antecedents and effects of teachers' emotional experiences: An integrated perspective and empirical test. In P. A. Schutz & M. Zembylas (Eds.), *Advances in Teacher Emotion Research: The impact on teachers' lives* (pp. 129-151). New York, NY: Springer.
- Midgley, C., Maehr, M. L., Hruda, L. Z., Anderman, E., Anderman, L., Freeman, K. E., Gheen, M., Kaplan, A., Kumar, R., Middleton, M. J., Nelson, J., Roeser, R., & Urdan, T. (2000). *Manual for the Patterns of Adaptive Learning Scales (PALS)*. Ann Arbor, MI: University of Michigan.
- Schutz, P. A., Cross, D. I., Hong, J. Y., & Osbon, J. N. (2007). Teacher identities, beliefs, and goals related to emotions in the classroom. In P. A. Schutz & R. Pekrun (Eds.), *Emotion in education* (pp. 223-241). Amsterdam, Netherlands: Academic Press.
- Senko, C., Hulleman, C. S., & Harackiewicz, J. M. (2011). Achievement Goal Theory at the Crossroads: Old Controversies, Current Challenges, and New Directions. *Educational Psychologist, 46*(1), 26-47.
- Skinner, E. A., Kindermann, T. A., & Furrer, C. (in press). A motivational perspective on engagement and disaffection: Conceptualization and assessment of children's behavioral and emotional participation in academic activities in the classroom. *Educational and Psychological Measurement*.