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Data Summary for Motivation Interventions

June 8, 2012

Dr. Lia Daniels was interested in exploring how to present preservice teachers with best practices from the motivation research literature which will help them increase their future students' motivation. Thus, three different motivation intervention presentations were developed and delivered to preservice teachers, focusing on the following motivation theories: attribution theory, expectancy value theory, and self-determination theory. Interventions based on these theories deal with things like helping students make adaptive attributions in the face of failure (Berkeley, Mastropieri, & Scruggs, 2011), providing students with opportunities for autonomy or choice (Reeve, Jang, Carrell, Jeon, & Barch, 2004), and helping students see the utility value in their work (Hulleman & Harackiewicz, 2009), all of which consistently increase motivation and achievement for the students who receive them. Additionally, Dr. Daniels was interested in replicating Lauermann & Karabenick's (2011) finding that students who feel responsible for their students' motivation intend to use more performance based motivational strategies in the classroom. These findings are interesting as they mean that preservice teachers who feel responsible for student motivation in the classroom do not use adaptive motivation strategies with their students. Additionally, according to the motivation literature performance-based instructional practices are ineffective in improving motivation and even often undermine achievement (Meece, Anderman, & Anderman, 2006). We were interested in seeing if these findings held for our participants.

A group of preservice teachers attended the interventions and completed a series of measures at both the start and at the end of the semester. In addition, a group of preservice teachers who did not attend the intervention completed these same measures at the same times so that we could compare between the two groups. It was hypothesized that students who took part in the motivation intervention presentations would show an increase in intention to use more adaptive motivational strategies with their future students.

The data presented here were collected from the Teacher Education Program at the University of Alberta, which is one of the largest teacher education programs in the country. Data collection sessions required approximately 25 minutes of class time and were collected in two different sections of EDPY 404 (Adolescent Development). One section functioned as an experimental group and attended the three motivation interventions, which were approximately an hour each. Each presentation was based in a different motivation theory. The other section of EDPY 404 functioned as a control group; they received all of the same information as the experimental group in a presentation after they completed the post-survey. Both groups completed the same pre and post-survey.

Summary and descriptive statistics are available representing a brief overview of the initial findings. I hope that they provide useful information and reflect the scope of the data we were able to collect this year. If you would like further information please contact: Dr. Lia Daniels, principle investigator at lia.daniels@ualberta.ca

Prepared by Amanda Radil

Motivation Intervention Data Summary 2011

Project: Motivation Intervention with Preservice Teachers (Fall 2011)

1. Demographic Information
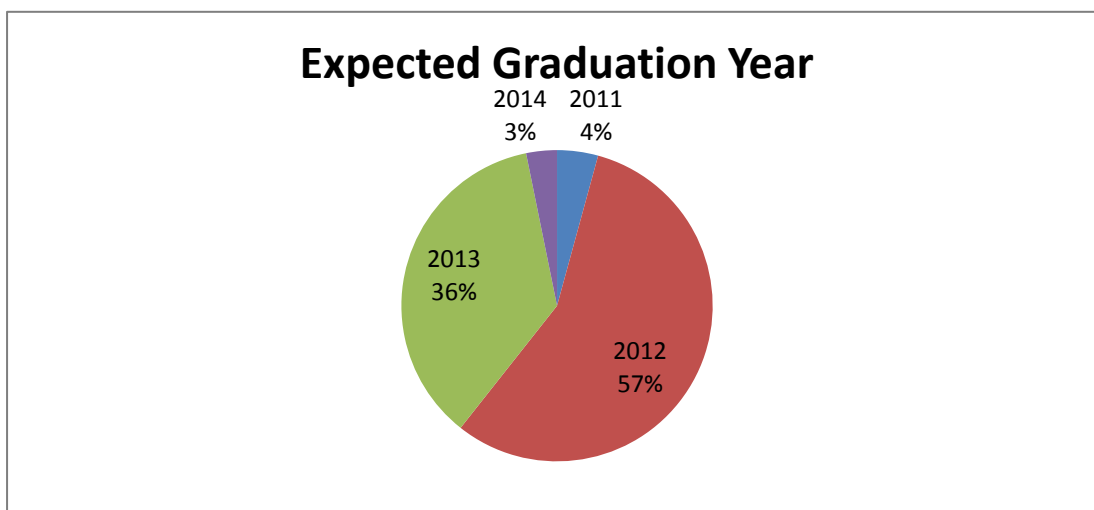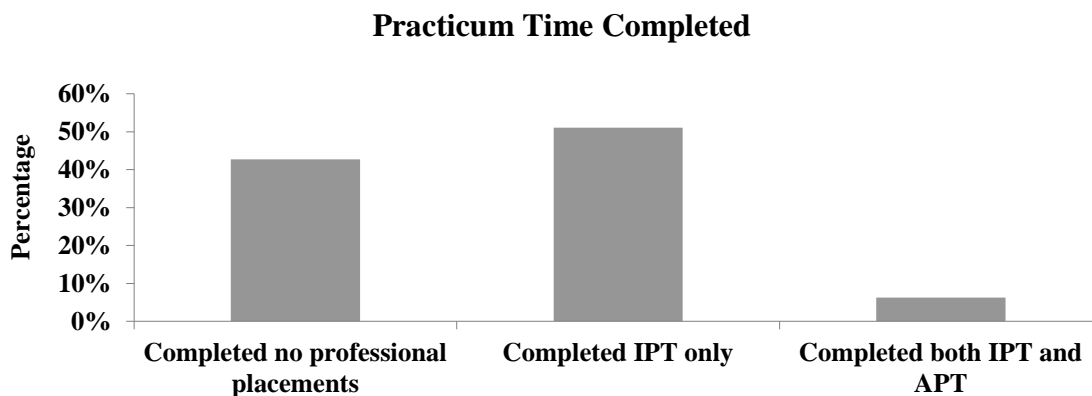
Sample Size: N = 96
Gender: 23.9% male; 76.1% female
Level of teaching: 25% elementary program, 75% secondary program

Practicum Time Completed


Expected Graduation Year

2. Responsibility for Aspects of Teaching

Four different areas for which teachers feel responsible were assessed: student motivation, relationships with students, their own teaching and student achievement. Pre-service teachers felt least responsible for student motivation (0.55) followed by achievement (0.69). They felt most responsible for their teaching (.87) followed by their relationships with their students (0.86). Achievement, relationship, and teaching differed by course section whereas motivation did not, although, the rank order was the same for both sections. For these numbers, scale totals were divided by scale maximums to compare across scales with different numbers of items.

One possible explanation for these different levels of endorsement is that the pre-service teachers in our sample felt most responsible for those things which they felt that they had the most ability to manage: their own teaching and the relationships that they create with their students. This provides an interesting avenue for future research, namely why do preservice teachers not feel as responsible for motivating their students when this may be the one thing that can have a global effect on achievement and relationships with students.

3. Self-Efficacy

Teaching self-efficacy examines teachers' beliefs that they are contributing significantly to the academic progress of their students, and can effectively teach all students. On the pre-survey, preservice teachers felt fairly efficacious in their work in the classroom, $M = 3.64$, $SD = .47$. Efficacy did not change much on the post-survey, with pre-service teachers endorsing similar levels, $M = 3.66$, $SD = .44$. The following graph illustrates the levels of efficacy on both the pre and post-survey.
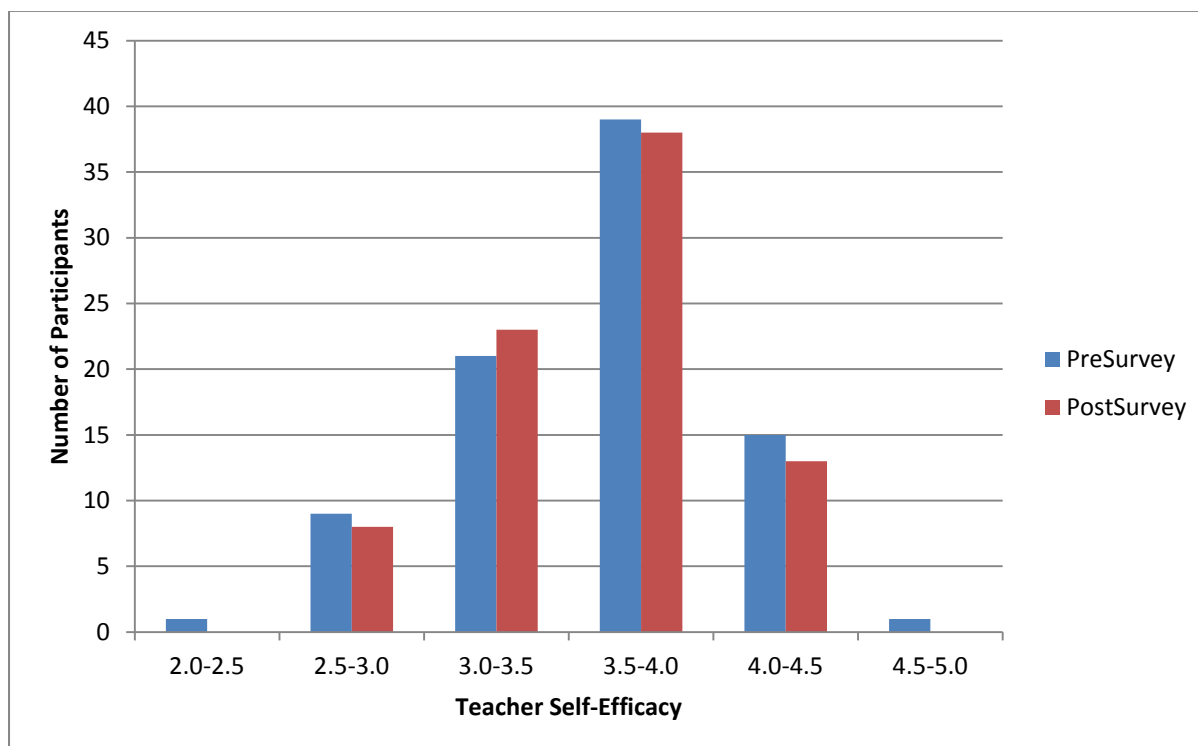
4. Motivational Strategies

The following three strategies were reported as being most able to increase student motivation on the pre-survey:

Strategy	Mean
Giving accurate feedback	3.81
Designing interesting tasks	3.85
Modeling enthusiasm	3.82

The following three strategies were reported as being least able to increase student motivation on the pre-survey:

Strategy	Mean
Spending the majority of class time in teacher-led discussion	1.81
Focusing on the level of innate ability	2.18
Sharing individual performance with the whole class	2.03

The following three strategies were reported as being most able to increase student motivation on the post-survey:

Strategy	Mean
Giving accurate feedback	3.77
Designing interesting tasks	3.80
Modeling enthusiasm	3.77

The following three strategies were reported as being least able to increase student motivation on the post-survey:

Strategy	Mean
Spending the majority of class time in teacher led discussion	1.75
Reminding students that sometimes they are just unlucky	1.70
Sharing individual performance with the whole class	1.76

Pre-service teachers endorsed "good" motivation strategies like providing rationales and mastery goals more strongly than "bad" motivation strategies using extrinsic rewards or performance goals. In terms of the divided literature on the extent to which pre-service teachers' motivation practices align with those recommended by research, these results suggest that they largely do. Our findings do not replicate the work of Lauermann & Karabenick (2011); in fact, they suggest the opposite, that preservice teachers who feel responsible for motivating their students tend to endorse more adaptive motivational strategies and practices.

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