Project Background and “Thanks”

- Fall 2005--Psyc 630: Training
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- Summer 2006--Rice University School Mathematics Project (RUSMP)
  - Anne Papakonstantinou

- Additional assistance
  - YOU!
RUSMP Summer Campus Program Description

- 90 participants
- Mean age of 36
- 7 years as math educator was the average
- Participants grades were generally high (Mean of 91.5)
- Test improvement ranged from -3 points to 69 points (on a 100 point test), average improvement was 35 points
Correlation between grades and test improvement

No Correlation!

<table>
<thead>
<tr>
<th>Test Improvement</th>
<th>Final Average Grade</th>
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<tbody>
<tr>
<td>60</td>
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<td>70</td>
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<td>100</td>
<td>90</td>
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<td>110</td>
<td>100</td>
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![Graph showing no correlation between grades and test improvement](image_url)
The transition from Ed Psych to IO Psych

- Research on help seeking behavior (HSB) has primarily been conducted in academic settings within the field of Educational Psychology (i.e., Karabenick, 2004; Midgley & Urdan, 2001; Ryan, Pintrich, & Midgley, 2001).
- One of the most prevalent topics within the literature on HSB is the relationship between goal orientation (GO) and HSB (Karabenick, 2003).
- Research on HSB and academic achievement is often combined with the research on GO and academic achievement.
HSB Scales

- Questions about help seeking behavior came from the help seeking scales developed by Karabenick (2003, 2004)
  - Appropriate: “If I were having trouble understanding the material in this program I would ask someone who could help me understand the general idea”
  - Dependent: “The purpose of asking somebody for help in this program would be to succeed without having to work as hard”
  - Avoidant: “If I didn’t understand something in this program, I would guess rather than ask someone for assistance”

- HSB was assessed using this general language before the training program
- After the training program HSB was assessed again, this time directing participants to respond based on their experiences in the program
- The Master Teachers also evaluated the HSB of the trainees
GO Scales

- 12 items make up the goal orientation questionnaire (Elliot and McGregor, 2001)
  - Performance Approach: “It is important for me to do better than other participants”
  - Performance Avoidance: “I just want to avoid doing poorly in this program”
  - Mastery Approach: “I want to learn as much as possible from this program”
  - Mastery Avoidance: “I worry that I may not learn all that I possibly could in this program”
- Observations of the extent each GO was promoted in each training setting were also recorded
Linkages between self reports of GO and HSB

- Participants who rated themselves high in Performance Avoid GO also reported a general tendency to display Appropriate HSB ($r = 0.24, p < 0.05$)

- Those who rated themselves high in Performance Approach GO also reported a general tendency to display Avoidant HSB ($r = 0.28, p < 0.01$) as well as Avoidant HSB during the program ($r = 0.26, p < 0.05$)
The Observed GO of the training environment and HSB

- Observed Performance Avoid GO was a significant predictor of lower reported Dependent HSB during the program even when controlling for general Dependent HSB ($\beta = -0.32, p < 0.01$)
Predicting Final Average Grade

- Master Teachers’ HSB Ratings were among the best predictors of Final Average Grade
  - Master Teachers’ Avoidant HSB $\beta = -0.34$, $p < 0.01$
  - Master Teachers’ Dependent HSB $\beta = -0.31$, $p < 0.01$
  - Master Teachers’ Appropriate HSB $\beta = 0.21$, $p = 0.06$
Predicting Final Average Grade

- The next best group of predictors was the Observations of GO
  - Obs Performance Avoid GO $\beta = -0.66, p < 0.01$
  - Obs Performance Approach GO $\beta = 0.36, p < 0.01$
  - Obs Mastery Approach GO $\beta = -0.01, p = 0.90$

- Together Master Teachers’ Ratings and Observed GO explains 55% of the variance in Final Average Grade

- Self-report data for HSB and GO were not significant predictors
Predicting Test Improvement

- AGAIN the best predictors of performance (this time Test Improvement) were the Observed GO and Master Teachers’ HSB Ratings.
  - Obs Mastery Approach GO $\beta = -0.80$, $p < 0.01$
  - Obs Performance Avoid GO $\beta = -0.36$, $p < 0.05$
  - Obs Performance Approach GO $\beta = 0.17$, $p = 0.19$
Predicting Test Improvement

- Master Teachers’ HSB Ratings
  - Avoidant $\beta = -0.23$, $p < 0.05$
  - Dependent $\beta = 0.04$, $p = 0.68$
  - Appropriate $\beta = -0.03$, $p = 0.78$

- Together Master Teachers’ Ratings and Observed GO explains 49% of the variance in Test Improvement

- Self-report data for HSB and GO were not significant predictors
Implications for Training in other areas

- Teacher training is similar to other “classroom” training often conducted at corporations for software skills or other uses of technology
Influence of the instructor

- The GO set by the instructor can impact HSB and training performance.
- Instructors can identify trainees who have Avoidant HSB and might have lower training performance. Instructors could design interventions for those trainees to possibly improve training performance.
Additional Questions or Ideas?