Making the Match: Reconstructing Principal-Teacher Fit

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March 21, 2019

Literature Review: It's all about fit

- **"It is all about fit."**
  - Leadership matters for teacher turnover & hiring (Engel et al., 2018; Grissom, 2011)
  - Match quality between teachers and principals explained student achievement (Jackson, 2013)
  - Teacher retention studies mostly focus on teacher characteristics and school demographics (Allensworth et al., 2009; Boyd et al., 2005; Loeb et al., 2005)

Literature Review: Measuring Fit

- **Measuring fit** (Young et al., 2015)**:**
  - 1) Perceived fit: perceptions of fitting in with organizations
  - 2) Subjective fit: characteristics of teachers and organizations (e.g., teaching philosophies)
  - 3) Objective fit: asking same questions to teachers and colleagues to measure fit
  - Related to attitudinal (e.g., job satisfaction) & behavior outcomes (e.g., turnover)
- **Limitation:** focused on self-reports based on surveys

Our contribution

- **Our study:** Examines fit in a new way capturing educational beliefs and philosophy discovered in principal and teacher job statements
- **Research questions:**
  - 1) How are teachers and principals matched across schools depending on their types?
  - 2) How does the match determine teacher turnover?
  - 3) How does the match predict who gets hired?

Examining Fit in Wisconsin

Data:
- Statewide job application data (WECAN) in WI
- Merging with staff data and sch/district administrative data
- Professional statement includes applicants' educational belief, philosophy, and professional goals

Sample:
- All teachers and principals searching for a position between 2014 and 2016 in WI through the WECAN System
- 8,385 teachers and 652 principals

Developing the Typologies

Method: Correlated Topic Modeling (CTM)
- Similar to Latent Class Analysis, but instead used to identify latent topics from large amounts of textual data
- CTM produces # of topics, probabilities, and representative terms
- Research team read through 40 to 60 professional statements for each topic
- Determined topic names and descriptions
- Combination of quantitative & qualitative approaches

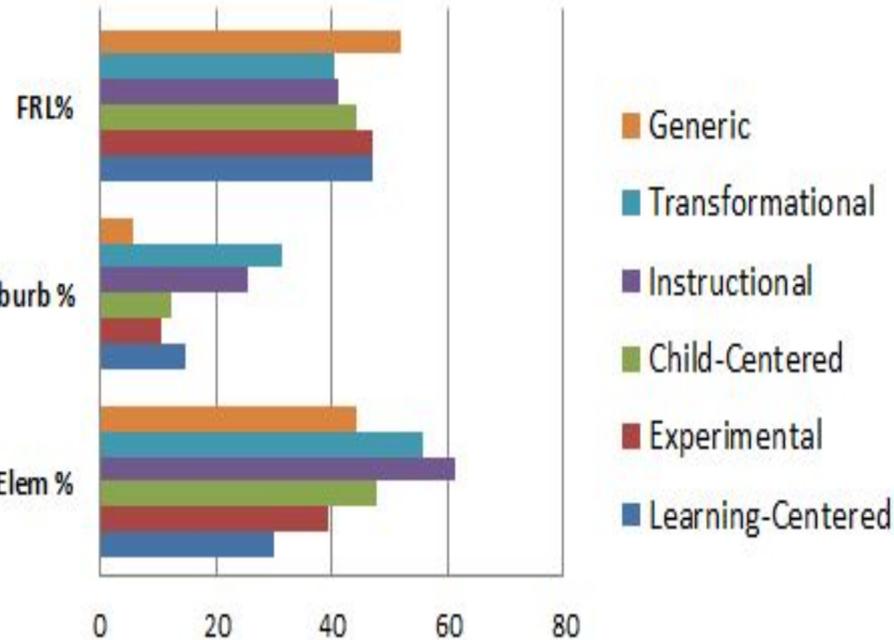# Principal Types (Goff & Bowers, in prep)

| Principal Type	Description	Pct.	Female (%)	Exp
Learning-Centered	Emphasize the student learning experience	2.8	46.9	3.5
Experimental	Lean heavily on own experience, more managerial	4.5	47.1	3.2
Child-Centered	Create environment that maximizes student potential as learners and as compassionate, responsible citizens	12.8	44.3	1.9
Instructional	Emphasize teachers and the importance of their instruction. Communicate vision of effective instruction	20.0	41.1	2.3
Transformational	Focus on melding teachers into a motivated, high-functioning team	57.0	40.6	3.0
Generic	Lack specificity regarding values, beliefs, and philosophy	3.0	52.0	2.5

Teacher Types (Goff et al., in prep)

Teacher Type	Description	Pct.	Female (%)	Exp
Inclusivist	Want students to be aware of global perspectives and focus on social justice.	4.6	80.2	6.4
Idealist	Express passion for teaching and subject	20.5	70.3	5.2
Generalist	Focus on different personal experiences from career and life	23.3	70.3	6.7
Classroom Expert	Emphasize their own experience, skills, certifications, and projects they've led	17.5	85.8	10.0
Guide	Focus on students' skills and abilities; emphasize experiences rather than lecture	28.9	75.6	5.7
External Expert	Highlight their experiences from previous careers or life	5.2	67.0	8.6

# Principals & Teachers are not equally sorted across schools
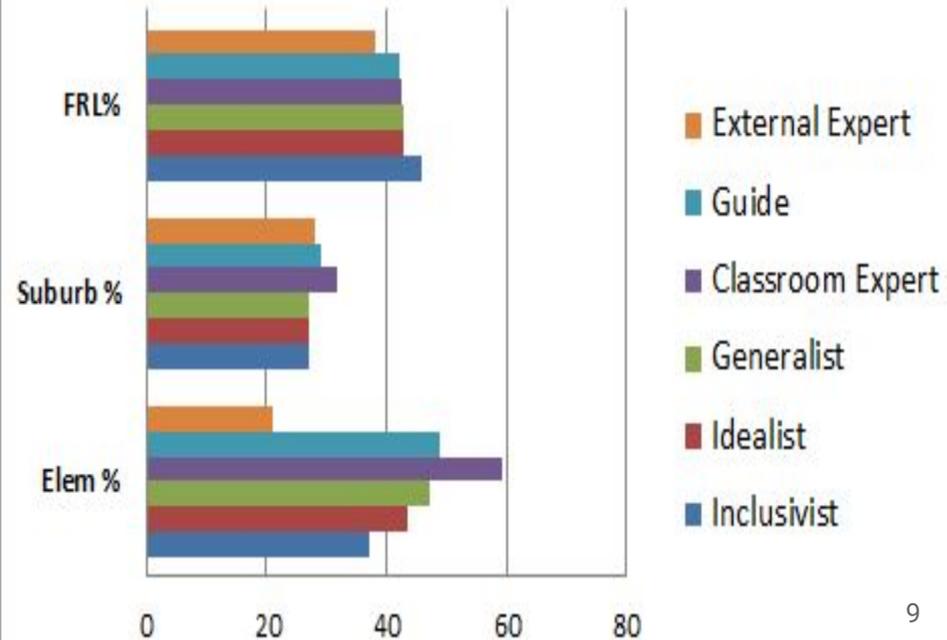
Matrix of Teacher Types and Principal Types

RED if (Real prob/Expected prob) >= 1.2, BLUE if (Real prob/Expected prob) = < 0.8

T/P	Learning-Centered (2.8%)	Experimental (4.5%)	Child-Centered (12.8%)	Instructional (20.0%)	Transformational (57.0%)	Generic (3.0%)
Inclusivist (4.6%)	BLUE					RED
Idealist (20.5%)						
Generalist (23.3%)		RED				0.9/0.7 = 1.3
Classroom Expert (17.5%)	0.5/0.9 = 0.6					
Guide (28.9%)						
External Expert (5.2%)	RED					

Principal types and sch–level teacher turnover

Marginal probability with 95% CI
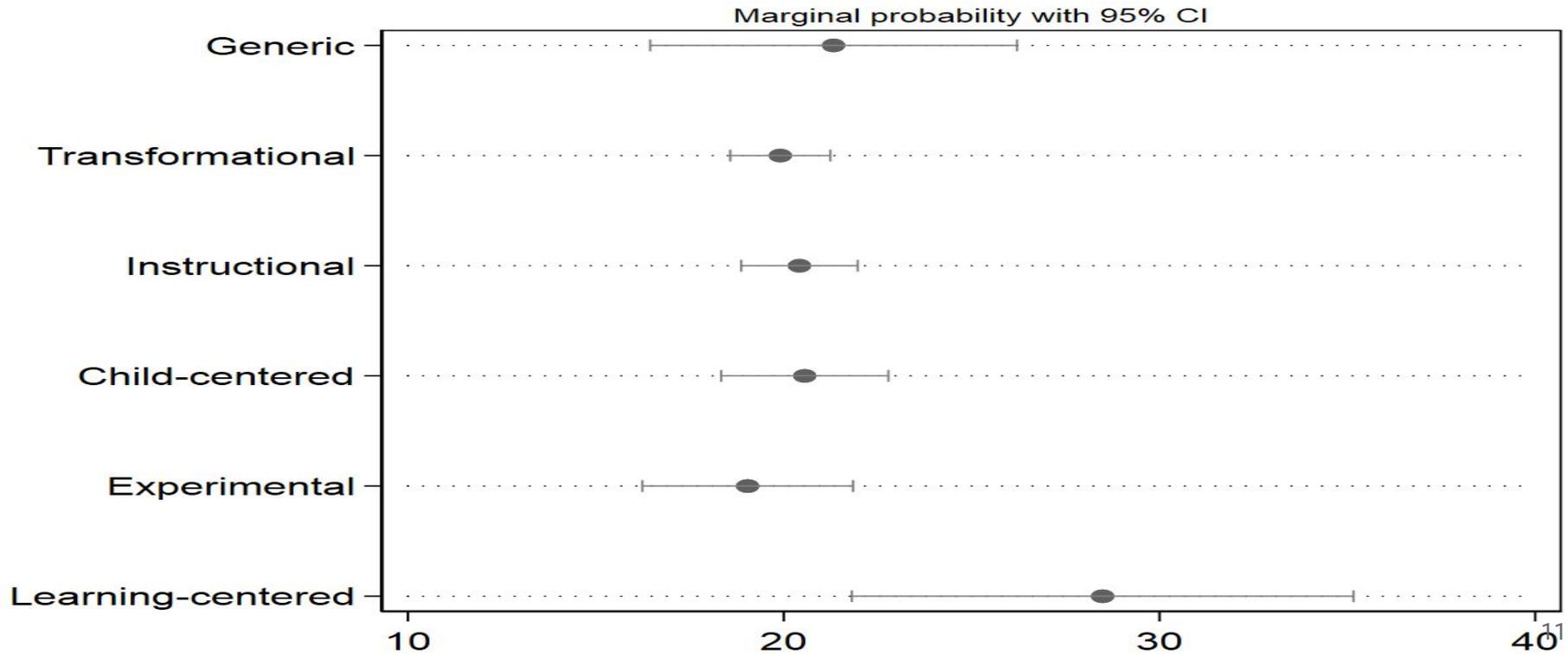
Teacher types and teacher turnover

Marginal probability with 95% CI
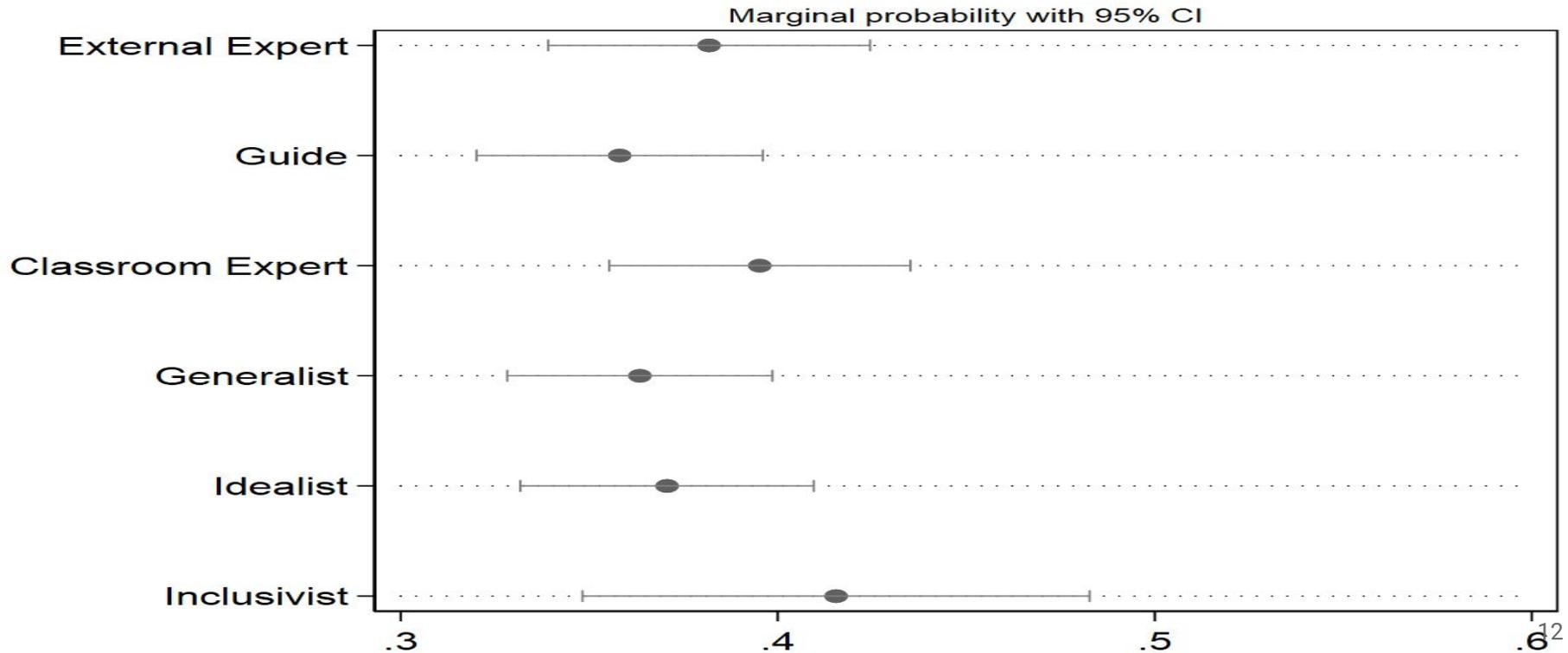
Principal–Teacher fit and teacher turnover

Marginal probability with 95% CI
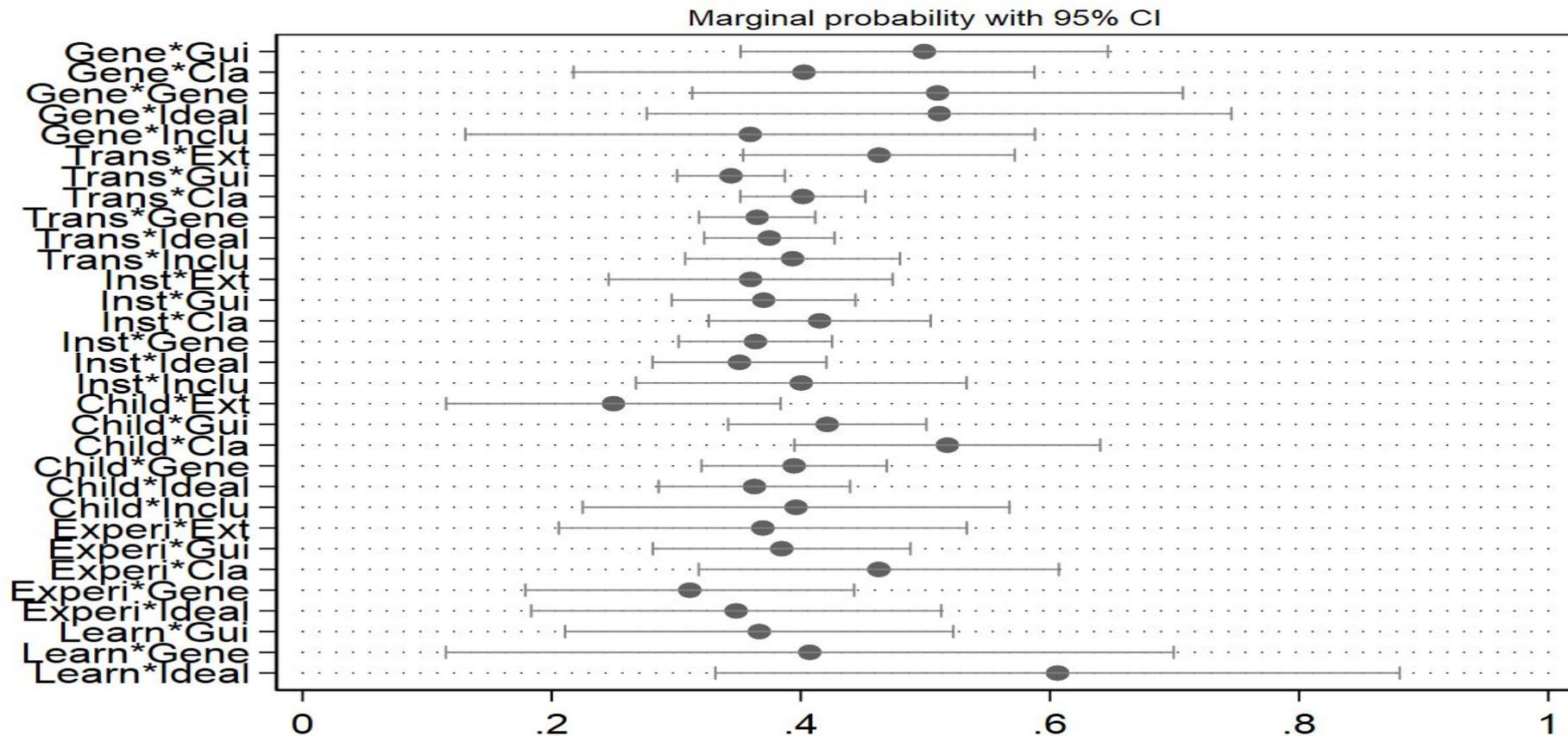
Discussion

Two takeaways

- Unequal distribution of principal and teacher across schools

- No notable effects of the principal-teacher fit on teacher turnover

Discussion

- What does this tell us about principal-teacher fit?
  - Principal-Teacher fit may not matter as much as fit with other components of the organization (e.g. colleagues)
  - Principal-Teacher fit may not be about philosophy and beliefs, but about other factors such as management style (Ladd, 2011)
  - Examining teacher hiring would be a better indicator of fit given the hiring dynamics

Conclusion – Where do we go from here?

Next steps

- Evaluate the hiring practices to determine if certain types of principals hire certain types of teachers

- Examine mobility patterns based on principal-teacher fit to determine if certain matches lead to greater attrition

- Further Investigate the concept of fit

Q & A

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(Appendix) Literature Review – Two kinds of fit

- **Two types of fit:** complementary and supplementary (Edwards & Shipp, 2007)
  - **Complementary fit**: how well individual's characteristics such as abilities, skills, and values are matched with the needs of a workplace and how well the workplace can meet the individual's needs by providing desirable returns (Kristof-Brown et al., 2005).
  - **Supplementary fit:** individuals consider themselves as fitting well with the workplaces because characteristics of organizations are similar to their characteristics (Muchinsky & Monahan, 1987).