Abstract Title Page

Title: Development of the Teachers Supporting Teachers in Urban Schools Program: What Iterative Research Designs Can Teach Us

Author(s): Elisa S. Shernoff, Stacy L. Frazier, Ane Marinez-Lora, Marc S. Atkins & Joanna Keel

Background/Context

The Problem of Teacher Attrition in Urban Schools

Recent research documents what educators have long suspected – perennial high rates of teacher shortages plaguing American schools is not due to an insufficient supply of qualified teachers, but to large numbers of teachers leaving their jobs long before retirement (Ingersoll, 2001; Smith & Ingersoll, 2004). Attrition rates among new teachers are particularly alarming, with upwards of 20% of new teachers leaving within the first 5 years of entry into the occupation (e.g., Guarino, Santibanez & Daley, 2006; Smith & Ingersoll, 2004). This *revolving door* phenomena is exacerbated by the fact that new teachers are often placed in the hardest-to-staff schools situated in high-poverty, urban communities.

Teaching in urban, low-income schools is especially daunting given high numbers of students with disruptive behaviors, overcrowding and large class sizes, and deteriorating conditions (Atkins et al., 2008; Boyd & Shouse, 1997; Cappella et al., 2008). Chronic teacher turnover not only creates chaos and instability at an organizational level, but also falls particularly hard on poor, minority children, who are dependent on high quality educators yet commonly taught by inexperienced teachers overwhelmed by the stressors of urban schools and likely to leave within their first few years of teaching (Smith & Ingersoll, 2004; Smith & Rowley, 2005). Despite the alarming rates and negative consequences associated with teacher attrition, current induction support and professional development opportunities for new teachers often fails to provide them with the level of support needed to enhance their effectiveness and longer-term commitment to teaching (e.g., Kardos, Johnson, Peske, & Kauffman, 2001).

Targeting the Empirical Predictors of Attrition

Enhancing effectiveness in classroom management and student motivation. Beginning teachers consistently rank classroom management and student misbehavior as the most stressful, complex, and pressing issue they face and a top reason for leaving their jobs (Evertson & Weinstein, 2006; Hakanen, Bakker & Schaufeli, 2006). Helping beginning teachers develop skills and confidence around managing classrooms and addressing challenging behavior is crucial for urban educators, where prevalence rates for disruptive behaviors are almost three times national estimates (Bell & McKay, 2004; Tolan & Henry, 1996). Perceptions that students are unmotivated and disengaged is also a key predictor of attrition among new teachers (Ingersoll, 2001). Unmotivated students (i.e., exerting little effort and giving up quickly when challenged) are a major concern in urban, low-income schools (Jones & Sandidge, 1997) and present significant challenges to novice teachers (Good & Brophy, 2003).

Enhancing connectedness to colleagues. Feeling ineffective in the classroom is exacerbated by the alienation and isolation that often characterizes teaching. Studies of beginning teachers highlight that many feel "lost at sea," with few resources to help them survive (Berry, 2004). Although new teachers depend on meaningful collaboration with colleagues, the cellular structure of elementary schools leaves them teaching in isolation and struggling privately with problems. Bryk and Schneider (2002) conceptualize these collegial interactions in the context of *relational trust*, characterized by mutual respect and personal regard that facilitates risk-taking and experimentation with new practices. Educational sociologists focus on a sense of community, cohesion, and belongingness that is central to school effectiveness and urban school reform (Rosenholtz, 1989), while social capital theory points to how the nature and function of social relationships support individual and group development (Smylie & Hart, 1999). We

propose that enhancing new teachers' *effectiveness* in the classroom is necessary for retention, but insufficient unless teachers also perceive a sense of *connectedness* with their colleagues.

Purpose/Objective/Research Question/Focus of Study

The *Teachers Supporting Teachers in Urban Schools Project* is a 3-year study funded by the Institute of Education Sciences (Development and Innovation Study) and designed to enhance new teachers' *effectiveness* around the two strongest empirical predictors of attrition -- classroom management and engaging learners - and *connectedness* to colleagues given the central role that cohesion, trust, and belongingness plays in teaching (Bryk & Schneider, 2002; Kardos et al., 2001). The professional development model includes linking new teachers with peer-nominated key opinion leader (KOL) mentors identified through sociometric interviews (see Atkins et al 2008 et al; Neal, Shernoff et al., 2008) and an external coach who work together to: (1) provide intensive support in evidence-based practices for classroom management and engaging learners, and (2) connect teachers with their larger network of colleagues as a mechanism for enhancing teacher retention and long-term commitment to teaching. Using an iterative research design (Rounsaville, Carroll, & Onken, 2001), year 1 activities include partnering with one urban school to develop and implement the professional development model. Year 1 activities will guide the development and refinement of the key components of the model which will then be implemented in two additional schools during subsequent funding years.

Although science behind intervention development is limited, intervention development studies play a key role in creating feasible, acceptable, effective interventions that can be implemented in the natural settings for which those interventions were designed (Fixsen et al., 2005). Therefore, the primary goal of the proposed presentation includes illustrating the systematic, yet complex process of program development and early implementation of a multi-component teacher professional development model. Utilizing year 1 data from a 3-year study, the four aims of the current presentation include: (1) describing the conceptual framework and key components of the professional development model; (2) describing new teachers' initial experiences working in urban schools, including perceptions regarding effectiveness (i.e., classroom management and motivating learners) and connectedness (i.e., cohesion and trust with colleagues); (3) examining the extent to which the professional development model was delivered as intended (fidelity); and (4) evaluating acceptability of the service model by consumers and other key stakeholders.

Setting

This research is currently underway in partnership with three K-8th low performing elementary schools in a large Midwestern city, with our cohort 1 school being featured in this presentation to illustrate initial development and implementation of the model. Schools are located in high-poverty communities with 85% or greater African American students, 85% or greater low-income families, and average reading scores on statewide testing below the 30th percentile (M = 27.9, SD = 3.8).

Population/Participants/Subjects

Key Opinion Leader (KOL) Mentors

The identification and selection of KOL mentors followed systematic procedures utilized by the investigative team in two prior studies (Atkins et al., 2008, Neal, et al., 2008). After securing informed consent adhering to university IRB procedures for recruitment of research participants, school staff in an instructional role at our cohort 1 school (e.g., K-8 classroom teachers, lead literacy teachers) completed 10-minute sociometric interviews in which they nominated teachers from their school with whom they consulted regarding: (1) classroom management and (2) motivating and engaging students. Interviewees indicated how many times per month they consulted with each nominated teacher and how emotionally close they felt to each person nominated (1 = *Not at All*; 5 = *Very Close*). Lastly, teachers provided demographic information. Of the cohort 1 teachers eligible to participate in the interviews (n = 23), the majority (n = 17) consented.

Next, we identified KOL mentors based on their ability to provide direct advice in classroom management and engaging students to the highest number of K-8 grade teachers within the social network and demographic characteristics (i.e., at least 5 years total teaching and at least 2 years working at the school). At our cohort 1 school, the two most influential teachers did not return to the school the following year; therefore, the third and fourth choice KOLs were recruited and successfully consented. The first KOL mentor had 29 years of teaching experience and was the lead literacy teacher at the school. She was female and European American. The second KOL mentor had 5 years of teaching experience and was an eighth grade science teacher.

Early Career Teachers

Early career teachers with five or fewer years of teaching experience were recruited to participate in professional development activities based on empirical evidence that teachers are most likely to leave teaching or transfer to other schools within the first five years (e.g., Guarino et al., 2006). Of the six eligible early career teachers at our Cohort 1 school, n = 5 agreed to participate. Mean years of teaching experience for early career teaches was 2.8 (SD = 1.69) and all early career teachers were female. After early career teachers consented, they were matched with a KOL Mentor using social network analyses and based on the following set of criteria: 1) priority was given to matching early career teacher with mentors for whom a direct advice relationship already existed, 2) if there was no direct link, those mentors who were most linked with other teachers with whom the early career teacher was associated was selected, 3) if the first two criteria did not apply because either the new teacher was isolated from peers or brand new to the school, we matched that teacher with a mentor who had the greatest number of connections with other teachers in the school.

Classroom Teachers

K-8 classroom teachers at our cohort 1 school (n = 10) participated in monthly professional learning community meetings, with two eligible teachers declining. Mean years of teaching experience for classroom teachers was 15.4 (SD =11.5). Eighty eight percent of the teachers were female. With regards to race and ethnicity, 59% of classroom teachers were African American; 24% were European American and 17% self-identified as “Other.”

Intervention/Program/Practice

Year 1 activities included working intensively with one school in an iterative process of developing, implementing, and adapting the three primary components of the professional development model and their associated fidelity tools. The three components of the service model included bi-monthly group seminars and weekly coaching for new teachers, in addition to monthly professional learning community meetings in which all faculty worked collaboratively to enhance student achievement by improving their classroom management and engagement practices (See Figure 1 for an illustration of the service delivery model).

Research Design

A mixed-methods research design was used to examine the initial feasibility of the model, including the extent to which it was delivered as intended (fidelity) and acceptable (consumer satisfaction) to early career teachers, mentors, and classroom teachers. Qualitative methods, including semi-structured interviews and focus groups assessed participants' experience with the professional development model and conditions that promoted and hindered implementation. Feasibility of and adherence to the professional development model was monitored through fidelity checklists completed by teachers after participating in each of the three components of the professional development model (e.g., group seminars, coaching, professional learning community meetings).

Data Collection and Analysis

Measures

Fidelity. At the conclusion of group seminars co-facilitated by mentors, early career teachers completed a 16 item *Group Seminar Checklist* in which they indicated whether each instructional format was used (i.e., yes/no) and how helpful each instructional format was (i.e., yes/no). Items reflected activities such as demonstration or modeling of an intervention, discussion of a new strategy, use of didactic instruction, and opportunities for practice with performance feedback.

At the conclusion of the monthly PLC meeting co-facilitated by mentors, teachers completed a 17 item *Professional Learning Communities Checklist* indicating whether each instructional format was used (i.e., yes/no) and how helpful each instructional format was (i.e., yes/no). Items reflected activities such as watching videos, sharing new strategies, and using handouts**.**

Early career teachers completed a *Pre-Conference-Checklist* (20 items); a *Classroom Visit Checklist* (16 items) and a *Post-Conference Checklist* (15 items) after each of the weekly coaching sessions and indicated whether each coaching component was used and how helpful each component was. The coach also completed a weekly *Coaching Log* designed to track duration, content, dosage, and frequency of each coaching session.

Semi-structured interviews. Early career teachers and mentors were interviewed by the lead author at baseline and time 2 during year 1 of the study. Interview protocols were informed by a careful review of the literature on early career teachers' experiences. Baseline interviews were used to develop rapport, provide information on teachers' prior experience with program components, examine teachers' reasons for entering the profession, and explore longer-term career goals. Time 2 interviews were designed to assess participants' perceptions of acceptability

and usability, defined as ease of use for early career teachers and ease of delivery for KOL mentors, and assessed at two levels: (1) content (i.e., principles and practices), and (2) format (i.e., group seminars, coaching, and PLC meetings). Interviews lasted approximately 1 hour and were audiotaped and transcribed verbatim.

Focus Groups. Classroom teachers participated in one focus group at the end of the school year facilitated by the lead author to discuss collective experiences with PLC meetings. Following recommendations by Morgan (1997), we included 6-8 teachers per group, and limited groups to 1-2 hours. Guided discussions focused on feedback on the content and process of PLC meetings, and perceptions of benefits and barriers to participation. Focus groups lasted approximately 1 hour and were audiotaped and transcribed verbatim.

Analytic Strategies

Qualitative research methods are being used to analyze semi-structured interviews and focus group data to answer research questions related to consumer satisfaction and early career teachers' perceptions regarding effectiveness and connectedness. The case study approach (Yin, 2003) is the research strategy for this study and thematic analysis will be used as the method of examining these data. The case study approach is a fitting strategy for a feasibility study because it can be used for exploratory, descriptive, and explanatory purposes and because it facilitates tracking of an individual, a group, or a program's progress over time (Stake, 1995; Yin, 2003). The case study approach will allow us to analyze the individual and collective experiences of early career teachers and mentors within their school context to identify individual differences in response to the professional development program in addition to cross-case analyses to identify common experiences. Thematic analysis will follow the guidelines outlined by Braun and Clarke (2006) so that the identification and analyses of thematic patterns is a flexible process that is also clearly delineated: 1) becoming familiar with interview data, 2) generating initial codes, 3) identifying themes, 4) reviewing and revising themes, 5) describing themes, and 6) generating a report. The research team will independently review and code each semi-structured interview transcript and focus group transcript and meet to resolve discrepancies. Kappa coefficients will be computed to determine inter-rater reliability. Inter-rater reliability of 80% will be the minimum standard. Atlas.ti, a computer assisted qualitative data analysis program, will be used to help organize, manage, and analyze these data (Lewins & Silver, 2007; Murh & Friese, 2004).

Conclusions

This work is contributing to a program of research focused on developing new social structures within urban schools to enhance teacher effectiveness as a mechanism for promoting positive academic and behavioral outcomes for students living in urban poverty.

Appendix A. References

Atkins, M.S., Frazier, S., Leathers, S., Graczyk, P., Talbott, E., Jakobsons, L., Adil, J., Marinez-Lora, A., Demirtas, H., Gibbons, R., & Bell, C., (2008). Teacher key opinion leaders and mental health consultation in urban low-income schools. *Journal of Consulting and Clinical Psychology, 75,* 905-908.

Bell, C. C., & McKay, M. M. (2004). Constructing a children's mental health infrastructure using community psychiatry principles. *Journal of Legal Medicine, 25*, 5-22.

Berry, B. (2004). Recruiting and retaining 'highly qualified teachers' for hard-to-staff schools. *NASSP Bulletin, 88*(638), 5-27.

Boyd, W., & Shouse, R. (1997). The problems and promise of urban schools. In H. Walberg, O. Reyes & R. Weissberg (Eds.), *Children and youth: Interdisciplinary perspectives* (pp. 141-165). Thousand Oaks, CA: Sage.

Bryk, A. S., & Schneider, B. (2002). *Trust in schools: A core resource for improvement*. New York: Russell Sage Foundation.

Cappella, E., Frazier, S. L., Atkins, M. S., Schoenwald, S. K., & Glisson, C. (2008). Enhancing schools' capacity to support children in poverty: An ecological model of school-based mental health services. *Administration and Policy in Mental Health, 35*, 395-409.

Evertson, C.M. & Weinstein, C.S. (Eds.). (2006). *Handbook of classroom management: Research, practice, and contemporary issues*. New Jersey: Lawrence Erlbaum Associates.

Fixsen, D. L., Naoom, S. F., Blase, K. A., Friedman, R. M., & Wallace, F. (2005). *Implementation research: A synthesis of the literature* (FMHI Publication No. 231).

Tampa: University of South Florida, Louis de la Parte Florida Mental Health Institute, National Implementation Research Network.

Good, T. L., & Brophy, J.E. (2003). *Looking in classrooms*. New York: Allyn & Bacon.

Guarino, C. M., Santibanez, L., & Daley, G. A. (2006). Teacher recruitment and retention: A review of the recent empirical literature. *Review of Educational Research, 76*, 173-208.

Hakanen, J. J., Bakker, A. B., & Schaufeli, W. B. (2006). Burnout and work engagement among teachers. *Journal of School Psychology, 43*, 495-513.

Ingersoll, R. M. (2001). Teacher turnover and teacher shortages: An organizational analysis. *American Educational Research Journal*, *38*, 499-534.

Jones, D. L., & Sandidge, R. F. (1997). Recruiting and retaining teachers in urban schools. *Education and Urban Society, 29*, 192-203.

Kardos, S.M., Johnson, S.M., Peske, H.G., & Kauffman, D. (2001).Counting on colleagues: New teachers encounter the professional cultures of their schools. *Educational Administration Quarterly*, *37*(2), 250-290.

Lewins, A., & Silver, C. (2007). *Using software in qualitative research: A step-by-step guide.* Los Angeles, CA: Sage.

Morgan, D. (1997). *Focus groups as qualitative research* (2nd Ed.). Thousand Oaks, CA: Sage.

Murh, T. & Friese, S. (2004). *User's Manual for ATLAS.ti 5.0* (2nd Ed). Berlin, Germany: Scientific Software Development.

Neal, J., Shernoff, E.S., Frazier, S.L., Stachowicz, E., Frangos, R., & Atkins, M. (2008). Change from within: Engaging teacher key opinion leaders in the diffusion of interventions in urban schools. *The Community Psychologist*, *41*, 53-57.

Rosenholtz, S.J. (1989). Workplace conditions that affect teacher quality and commitment: Implications for teacher induction programs. *The Elementary School Journal*, *89*, 420-439.

Rounsaville, B.J.. Carroll, K.M. & Onken, L.S. (2001). A stage model of behavioral therapies research: Getting started and moving on from stage I. *Clinical Psychology: Science and Practice, 8*, 133-142.

Smith, T. M., & Ingersoll, R. M. (2004). What are the effects of induction and mentoring on beginning teacher turnover? *American Educational Research Journal, 41*, 681-714.

Smith, T.M., & Rowley, K.J. (2005**).** Enhancing commitment or tightening control: The function of teacher professional development in an era of accountability. *Education Policy*, *19*, 126-154.

Smylie, M.A., & Hart, A.W. (1999). School leadership for teaching learning and change: A human and social capital development perspective. In J. Murphy & K.S. Louis (Eds.), *Handbook of research on educational administration* (2nd Ed., pp. 421-441). San Francisco: Jossey-Bass.

Stake, R.E. (1995). *The art of case study research*. Thousand Oaks, CA: Sage

Yin, R.K. (2003). *Case study research: Design and methods*. Thousand Oaks, CA: Sage.

Appendix B. Tables and Figures

Figure 1. *Professional Development Model*