Exploring "The Ripple in the Pond"- A Correlational Study of the Relationships between Demographic Variables and the Teacher Change Agent Scale

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As a result of the proliferation of standardized testing and academic standards, there are new expectations for teachers and the role(s) they play in improving student learning and achievement (Cochran-Smith & Lytle, 1999; Garet et al., 2001). However, little is known about teachers who initiate positive changes outside of their own classrooms and even less about what they "look like." As such, this study was designed to determine whether there was a relationship between the demographic variables of age, gender, years of teaching experience, grade level taught, and primary teaching responsibility and scores on the Teacher Change Agent Scale (TCAS), its subscales, and individual items. Bivariate correlations and means comparison (ANOVA) were used to analyze the responses of 652 teachers. Results indicate that: a teacher's age is negatively correlated with teacher change agency and membership in a professional community, grade level influences a teacher's overall mean score, and teachers of all ages need support in working effectively with their colleagues. Given that teachers are being charged with making schools "work" for all students, these findings represent a meaningful contribution to the teacher change agency research.

Keywords: teacher change agent, TCAS, school improvement

Many believe that either school administrators or the government should make change "happen" in schools, but it is teachers themselves who are best situated to initiate school improvement efforts (i.e., Elmore, 2004). Still, the assumption that "the only job of teachers is to teach students and to consider the classroom, at best, as the legitimate extent of their influence" (Urbanski & Nickolaou, 1997, p.244) persists, and the overwhelming majority of current research remains fixed in the view that teachers can only serve one of two roles when it comes to school improvement – they can be either recipients of change initiatives (see Richardson & Placier, 2001) or implementers of reform efforts prescribed by administrators (e.g., Buchanan, 2003).

While the majority of the current literature focuses on the "teacher leader," further analysis of this popular phrase reveals that, despite its proactive tone, its use typically underscores the role of the teacher as either a recipient or as an implementer of external mandates. In short, little is known about the teachers who possess the ability to initiate school reform efforts and even less about any demographic variables (i.e., age or gender) which they may have in common. This information would be particularly useful for teacher education programs; for example, knowing who among their students would (or would not) be a likely teacher change agent would allow faculty to provide each teacher candidate with access to the resources s/he needs in order to be successful. Therefore, using the definition of "teacher change agent" as a classroom teacher who chooses to initiate actions in support of an improvement in teaching and/or student learning beyond his/her own classroom, the purpose of

this study was to determine whether any relationships exist between the demographic variables of gender, age, years of teaching experience, grade level taught, and primary job responsibility and teacher change agency.

Review of Literature

Identifying a teacher change agent is a difficult task, which seems due largely to the fact that the meaning of teacher change agent is highly dependent on who is using it. For example, teacher change agents have been described alternatively as "transformer[s] of the present social order" (Cobb, 2001, p.91), school stewards (Lovingfoss, Molloy, Harris, & Graham, 2001), and as positive deviants (Fullan, 2002). These alternate descriptors do little to clarify the exact nature of the teacher change agent's role in school reform, yet even when more clearly defined, discussions of the role(s) of teacher change agents in school reform result in lists of requisite teacher behaviors (Cobb, 2001) or imply a go-between status (Buchanan, 2003; Havelock 1995), in which the teacher is seen as the implementer, facilitator, sponsor, or coach charged with being the "champion" for a reform effort mandated from the top down. In addition, the majority of teacher change agent literature has examined how teachers work to effect change in their own curricular areas, individual classrooms, or specific teaching skills rather than on how they pursue wide scale change efforts (i.e., Wasley, 1991), and no attention has been paid to trying to identify an archetypal teacher leader (or teacher change agent) in terms of age, gender, etc.

More recently, discussion of teacher leaders sometimes includes reference to leading change efforts. For example, Rossman, Rallis, Phlegar, and Abeille (1995) include the task of being a "changemaker" in their discussion of the possible roles that teacher leaders fulfill in their schools. Since both teacher leader and teacher change agent are often ill defined in the literature, it can be difficult to determine how they differ from one another, especially in terms of the role of each in school reform efforts. In essence, while there is little empirical support for such a claim, the assumption in the literature seems to be as Chapman (2006) remarks: "Teacher leaders are often change agents by default" (p.32).

As a result of both the ambiguity surrounding the term "teacher change agent" and its overlap with the teacher as leader literature, very little is known about the teachers who possess the capability to make change "happen" in their schools. However, efforts have been made to detail the knowledge, skills, and dispositions needed by teacher change agents in order to initiate school reform efforts; for example, Lukacs and Galluzzo (in press) discuss the need for teacher change agents to have working understanding of a school's culture, advocacy skills, and the willingness to take risks, but these are abstract traits rather than concrete identifiers. Just as teachers are encouraged to be aware of

the cognizant of the shifting demographics of their schools (i.e., Hodgkinson, 2001), there is a need for teacher educators to know more about the demographics of their own students and about the relationships that exist between these demographics and students' willingness to initiate school reform efforts as well. In addition, such a profile would not only be helpful in clarifying the difference(s) between teacher leaders and teacher change agents, but it would also allow teacher education faculty to make available the resources needed by students to be successful in their efforts. Thus, this study was designed to determine whether a strictly demographic profile for a "typical" teacher change agent could be developed.

Method

Despite calls for teachers be on "the front lines" of school reform (Darling-Hammond, 2003), little is known either about teachers' capacity to initiate change efforts or whether there is a "typical" teacher change agent. This study was designed to determine whether or not there are any statistically significant relationships between teacher change agency and age, gender, grade level taught, and years of experience.

Participants

Participants (*n* = 652) in this study were practicing teachers in two school districts in the Mid-Atlantic region. The typical respondent was a 37-year-old female classroom-based middle school teacher with 13.3 years of experience. Table 1 summarizes demographic information of the respondents. A more detailed discussion of how participants were contacted can be found in the following section.

Instrument

Designed to measure teachers' willingness to be change agents, the Teacher Change Agent Scale (TCAS; Appendix) is a 15-item scale with Likert-style response choices include four options ranging from strongly agree to strongly disagree. Possible scores on the TCAS range from 15 to 60. In a study detailing its initial development and validation (Lukacs, 2009), the TCAS was found to have an overall Cronbach's alpha coefficient of $\alpha = .82$, and the scale's construct validity was demonstrated by estimating the relationships between and among the items.

The TCAS consists of three independent subscales: Content/Pedagogical Knowledge, Professional Community Membership, and Collaborative Expertise. Respectively, they measure teachers' self-reported understanding of teaching techniques in general as well as the ones specific to the subject(s) they teach (Items 4, 5, 7, and 11; $\alpha = .71$) with a score range of 4 to 16; teachers' self-reported membership in a community of like-minded others (Items 1, 9, 10, 12, and 13; $\alpha = .73$) with a score range of 5 to 20; and teachers' self-reported collaborative skills such as influencing or motivating their colleagues (Items 2, 3, 6, 8, 14, and 15; $\alpha = .72$) with a score range of 6 to 24.

Table 1
*Demographic Information of TCAS Respondents (*n=652)

	n	%
Gender		
Female	534	81.9
Male	118	18.1
Age		
20-29	138	21.2
30-39	164	25.2
40-49	138	21.2
50-59	176	27.0
60+	36	5.5
Years of Experience		
1-5	160	24.5
6-10	157	24.1
11-15	133	20.4
16-20	60	9.2
21-25	46	7.1
26-30	40	6.1
31-35	39	6.0
36-40	14	2.1
40+	3	.5
Grade Level		
Pre-K	213	32.7
K-5th	188	28.8
6th-8th	107	16.4
9th-12th	144	22.1
Primary Job Responsibility		
Classroom-based	283	43.4
Resource (i.e., ESOL, Reading)	147	22.5
"Specials" (i.e., Art, PE)	222	34.0

Data Collection

Two school districts in the Mid-Atlantic region were contacted about the distribution of the TCAS. In one, permission was granted to send the invitation to participate directly to teachers themselves; in the other, principals were contacted and given the choice of whether or not to send the invitation to their building's staff members. The online version of the TCAS was available for a one month period, and one reminder email was sent two weeks after the original invitation. A total of 729 teachers responded to the TCAS.

Data Analysis

Since this study focused on teachers' total TCAS or subscale score as the dependent variable, cases with missing values were excluded (n = 77). The data were then analyzed using descriptive, correlational, and inferential statistics. The descriptive evaluation included the calculation of means and standard deviations in order to determine the variability of overall TCAS score, scores on subscales, and demographic variables. Using the recommendations outlined by Hinkle, Wiersma, and Jurs (2003), a scatterplot was used to determine the general nature of the relationship between participants' overall TCAS scores and the demographic variables of gender, age, years of teaching experience, grade level taught, and primary job responsibility. ANOVA tests were used to compare the means of the various groups that were established by selected demographic variables.

Results

Overall TCAS Scores

As can be seen in Table 2, there were no statistically significant correlations found between teachers' total scores on the TCAS and gender, primary teaching responsibility, grade level, or years of experience. A weak but statistically significant negative correlation was found between age and total score on the TCAS ($r = -.09$, $p = .03$).

ANOVA tests were conducted to determine if there were significant differences in mean overall TCAS score by demographic variable. Results showed a significant difference [$F_{(3,648)} = 9.05$, $p = .00$] in overall TCAS score by grade level after applying Tukey's Honest Significant Difference (HSD) test. Mean overall TCAS score was found to differ significantly between both preschool ($M = 48.20$, $SD = 5.18$) and secondary ($M = 48.13$, $SD = 4.98$) teachers' scores and the scores of elementary ($M = 46.11$, $SD = 5.25$) and middle school ($M = 45.93$, $SD = 5.52$) teacher with preschool and secondary teachers having a score nearly 20% higher than the scores of either elementary or middle school teachers.

DTCAS Subscale Scores

As can be seen in Table 3, there were no statistically significant correlations between scores on the subscales and gender, primary teaching responsibility, grade level, or years of experience. A weak but statistically significant negative correlation was found between age and professional community membership ($r = -.12$, $p = .01$).

Table 2

Means, Standard Deviations, and Correlations for Total Score on TCAS and Demographic Variables

	M	SD	1	2	3	4	5	6
1. Age	37.00	1.22	---	.69**	.04	.14**	.05	-.09*
2. Years of Experience	13.33	9.84		---	.05	.08*	.06	-.03
3 Grade Level	2.28	1.14			---	.07	.15**	-.02
4. Primary Teaching Responsibility	1.91	.88				---	.28**	-.06
5. Gender	1.18	.39					---	-.02
6. Total Score	47.20	5.31						---

Note: *Correlation significant at $p<.05$ level (two-tailed). **Correlation significant at $p<.01$ level (two-tailed). Equal variances not assumed.

Table 3
Means, Standard Deviations, and Correlations for Subscale Scores and Demographic Variables

	M	SD	1	2	3	4	5	6	7	8
1. Age	37.00	1.22	---	.69**	.04	.14**	.05	-.03	-.12**	-.04
2. Years of Experience	13.33	9.84		---	.05	.08*	.06	.00	-.04	-.01
3 Grade Level	2.28	1.14			---	.07	.15**	-.06	.01	-.03
4. Primary Teaching Responsibility	1.91	.88				---	.28**	-.07	-.06	.00
5. Gender	1.18	.39					---	-.04	.02	-.02
6. Content/Pedagogical Knowledge	13.04	1.94						---	.43**	.73**
7. Professional Community Membership	15.86	2.19							---	.43*
8. Collaborative Expertise	18.08	2.63								---

Note: *Correlation significant at $p<.05$ level (two-tailed). **Correlation significant at $p<.01$ level (two-tailed). Equal variances not assumed.

ANOVA tests were conducted to see if there were significant differences between mean subscale scores and the demographic variables. Results showed a significant difference [$F(4,648) = 2.75$, p =.00] in the mean score for professional community membership with respect to age. After applying Tukey's HSD test, post hoc adjustment, mean professional community membership score was found to differ significantly between 20-29 year olds (M = 16.3, SD = 2.19), 30-39 year olds (M = 15.96, SD = 2.05), 40-49 (M = 15.767=, SD = 2.13), 50-59 year olds (M = 15.52, SD = 2.27), and 60 and older (M = 15.69, SD = 2.44) teachers with the mean score of 20-29 year olds on the professional community membership subscale up to 20% higher than those of their counterparts.

Discussion

This study was designed to determine whether there was a relationship between the demographic variables of gender, age, years of experience, primary job responsibility, and grade level taught and both teachers' overall and subscale scores on the TCAS. It was found that there were statistically significant relationships between age and overall TCAS score, grade level and mean TCAS score, and age and professional community membership. In addition, further data analysis suggests that there is at least one area in which all teachers need support in order to be successful in their efforts to change their schools.

Age and Teacher Change Agency

While the initial data analysis suggested that the younger the teacher, the more likely s/he is to be a teacher change agent, further examination of the scores for each age level item by item revealed additional insights. In particular, there appeared to be age-related "phases" of teacher change agency in which both the youngest and oldest teachers are more likely to initiate change efforts. Although many studies have documented the phases through which a teacher's career progresses, the majority of these have focused on teachers' years of experience rather than their age (i.e., Margolis, 2008). Thus, this study's finding that age matters while years of experience do not is a particularly puzzling one, especially when one considers that age and years of teaching experience were highly correlated with one another, but that the latter was not correlated in any way with overall TCAS score. In a sense, it seems counterintuitive; it is simply easier to imagine a "bright-eyed, bushy-tailed" and idealistic young teacher than it is to envision an older one with the same level of eagerness to change his/her school. What, then, can explain this finding that age is more important than years of experience when it comes to teachers' willingness to change their schools?

A likely explanation is that of what some have called the "life cycle" of teachers. For example, while teachers who are 20 to 29 might feel as though they have "everything to gain" and thus are willing to be teacher change agents as a byproduct of youthful enthusiasm, the older teachers' life experiences might cause them to feel as though there is "nothing to lose" by attempting to make a change. Indeed, this "fear of routine" (Huberman, 1989, p. 352) might explain why older teachers are willing to become more incorporate "activism" into their careers.

Since teachers' level of ambition and sense of investment can be much lower than those of younger or older teachers during this period (Huberman, 1989), the "life cycle" of teaching also explains why teachers between the ages of 40 to 59 have the lowest overall TCAS scores. In other words, teachers in this group may no longer feel as though they need to "prove" anything to their colleagues and as such are more accepting of the status quo than are their younger or older counterparts. In addition, since many 40- to 59-year olds may also be raising their own families, it could be that demands on their time and energy are already too numerous, and thus initiating school change is a low priority in their lives.

Another possible explanation might be that of career switchers. While estimates of the average age of a career switcher can vary widely, alternative teacher education programs in the geographic area in which this study was conducted report that students range from their 50s to mid-70s (Freedman & Goggin, 2008). Therefore, it is plausible that career switchers might account for the unexpected finding that teachers over 60 may be more likely to be teacher change agents than are teachers who are 30 to 59.

Whatever the reason, we should remain cognizant of one key point when it comes to a teacher's age and his/her ability to be a teacher change agent – namely that no teacher should be "written off" simply due to his/her age. While we may dismiss younger teachers as being overeager, consider older ones as ready to be "put out to pasture," or deem the ones in between as too complacent, it can be argued they all have something to offer in terms of school reform. However, if we hope to encourage teachers between the ages of 40 and 59 to "rise up and take charge of their professional landscape" (Clandinin & Connelly, 1995, p.163), we need to provide substantial support to help them become more motivated to do so.

Grade Level and Teacher Change Agency

The finding that there is a statistically significant relationship between teachers' overall score on the TCAS and the grade level at which they teach and specifically that a teacher working at either the prekindergarten or secondary (9th-12th grades) level was more likely to have a higher score on the TCAS than would one working at either the elementary (K-5th) or middle school (6th-8th) level is again a puzzling one. However, while at first it is hard to conceive that teachers of young children have much in common with those who teach young adults, one commonality may explain why they are both more likely to have positive views of teacher change agency in general.

Regardless of the grade level at which they teach, teachers often report that they chose their field because they wanted to "make a difference" (Castro & Bauml, 2009, p.115), and both preschool and high school teachers do this by stressing self-awareness, interpersonal skills, and creative problem-solving (i.e., Stipek & Byler, 1997; Beland, 2007), albeit for different reasons. While preschool teachers emphasize these skills to help young children transition into the new world of school, high school teachers do so to help students transition out of it. Since both preschool and high school teachers also consider being a role model an important aspect of their work (i.e., Lara-Cinisomo, Fuligni, Daugherty, Howes, & Karoly, 2009; McLaughlin & Talbert, 2001), one explanation for their more positive outlook on teacher change agency could be that they have internalized the values they seek to instill in their students and as such, these values have "carried over" into their own professional lives. In other words, because these teachers are facilitators of change and uncertainty in their own classrooms, they tend to practice what they teach in the larger school context.

Age and Professional Community Membership

Given that younger teachers depend upon their colleagues more than older teachers do (McCormick & Barnett, 2008), the weak but statistically significant finding that age is related to professional community membership is perhaps unsurprising. Yet while many advocate the importance of the professional community in teaching (i.e., Seglem, 2009), this study's weak but statistically significant finding suggests that teachers over 60 are less interested in being a part of a professional community than are those who are younger. In fact, on Item 1, "I enjoy working collaboratively with other teachers," teachers over 60 had the lowest mean score (M = 3.58, SD = .55). In other words, although these teachers report that they can help others with their teaching skills, it would seem that they don't want to.

One possible explanation for this finding might be that while teachers over 60 may feel capable of sharing their expertise, they may also feel that the particular school context in which they find themselves is not conducive in allowing them to do so. For example, since principals "hold the reins" (Cranston, 2009, p.1) in terms of whether or not a professional learning community will be successful in a particular school, it is possible that the negative opinions with regard to professional community membership of teachers over 60 is due to the fact that they do not trust the principal's leadership (Cranston, 2009).

It could also be that "the generation gap" (Johnson & Kardos, 2005) between older and younger teachers explains why older teachers are less likely to be active members of a professional community. As Rinke (2009) notes: "Teachers working next door to each other in today's schools tend to come from different generations" (p.12), and generational differences result in conflicting views on the importance of working with others. For example, while younger teachers are "products" of teacher education programs which tend to emphasize working with colleagues (i.e., Oakes, Franke, Quartz, & Rogers, 2002), older teachers often choose to remain isolated from their peers (Little, 1990). Thus, it may be that these differences in worldview and life experience cause tension between younger and older colleagues, the latter of whom may withdraw from the professional community as a result.

Yet whether the negative correlation between age and score on the professional community membership subscale is related to lack of trust, "the generation gap," or something else entirely, this finding suggests that we need to find new, more effective ways of ensuring that older teachers are able and willing to share their particular teacher change agent strengths (i.e., speaking out or risk-taking) with younger teachers. However, this study's findings also suggest that it is not only teachers over 60 who need assistance in working collaboratively.

Supporting All Teachers

Although data analysis suggests that elementary and middle school teachers between the ages of 40 and 59 need substantial support in order to become teacher change agents, this study's findings also suggest that all teachers need support in at least one area if they are to be successful in school reform efforts. As Table 4 demonstrates, there were four Teacher Change Agent Scale (TCAS) items for which all age groups had a mean score of less than three: "I know how to influence my colleagues" (Item 6); "I [don't] prefer to work alone" (Item 9); "I am [not] reluctant to rely on others" (Item 10); and "I know how to motivate my colleagues" (Item 14). These four items clearly relate to working with others, but where Items 6 and 14 suggest that teachers have doubts about themselves, Items 9 and 10 suggest they have doubts about the people with whom they work. In short, while it is true that younger teachers may have fewer doubts than do their older counterparts when it comes to actively working with colleagues, the low means of these items' responses indicate that all teachers feel as though they are unable to collaborate effectively within a professional community, which is cause for concern.

School-wide change cannot take place without the cooperation of others, and so teachers must be part of a joint effort in order for the change to extend beyond their own classrooms (Louis & Marks, 1998; Maeroff, 1993). In other words, if a change is to extend beyond one's own classroom, the participation of others in implementing that change is essential. However, since collaboration often requires negotiation, compromise, and at times, the ability to persuade others, working with others is often not easy. As such, changes rarely happen in school without some form of "backstage activity" which is inherent in nearly every social context. In order for teacher change agents to accomplish their goals, they must have a sophisticated understanding of formal/informal power (Blase & Blase, 1997). Put another way, a well-developed knowledge of the intentions, desires, and viewpoints of others and the ability to use this knowledge efficiently allows teachers to be successful in their pursuit of change. Teacher change agents must have this micro-political expertise; if they do not, they will be unable to work actively and effectively with others in their quest for reform, and it is unlikely that their intended change(s) will ever be realized (Miles, Saxl, & Lieberman, 1988).

In short, since it is doubtful that teachers who work alone to affect changes beyond their classrooms will be successful in their efforts, we need to provide all teachers with tools/strategies which will help them to work more effectively with their colleagues. For example, courses focusing on negotiating skills, how to identify like-minded peers with whom they could work towards school change, or the "art" of persuasion would be particularly beneficial to any teacher.

Limitations

As with any study of this type, it is important to remember that correlation does not equal causation. Put simply, it would be inappropriate to think that just because a teacher is 52, s/he is unlikely to be a teacher change agent or that it is a foregone conclusion that a preschool teacher will be. Also, while this study did not find any significant correlations between the demographic variables of gender, years of experience, or primary job responsibility and either overall TCAS or subscale scores, further research with larger sample sizes might indicate otherwise. However, despite these limitations, this study does represent an important first step in making the identification of teacher change agents possible, which may prove useful to any stakeholder in the education community who wishes to see change "happen" in schools.

Table 4
Means and Standard Deviations by Item

	M (SD)
Item 1	3.67 (.53)
Item 2	3.32 (.74)
Item 3	3.03 (.70)
Item 4	3.55 (.52)
Item 5	3.45 (.52)
Item 6	2.79 (.59)
Item 7	3.24 (.72)
Item 8	3.16 (.69)
Item 9	2.81 (.71)
Item 10	2.57 (.73)
Item 11	3.02 (.70)
Item 12	3.49 (.58)
Item 13	3.32 (.75)
Item 14	2.74 (.58)
Item 15	3.04 (.61)

References

Beland, K. (2007). Boosting social and emotional competence. *Educational Leadership, 64*, 68-71.

Blase, J., & Blase, J. (1997). The micropolitical orientation of facilitative school principals and its effects on teachers' sense of empowerment. *Journal of Educational Administration, 35*, 138-164.

Buchanan, D. A. (2003). Demands, instabilities, manipulations, careers: The lived experience of driving change. *Human Relations, 56*, 663-684.

Castro, A. J., & Bauml, M. (2009). Why now ? Factors associated with choosing teaching as a second career and their implications for teacher education programs. *Teacher Education Quarterly, 36,* 115-126.

Clandinin, D. J., & Connelly, F. M. (1995). *Teachers' professional knowledge landscapes: Advances in contemporary educational thought* (Vol. 15). New York: Teachers College Press.

Cobb, J. B. (2001). Graduates of professional development school programs: Perceptions of the teacher as change agent. *Teacher Education Quarterly, 28*, 89-107.

Cochran-Smith, M., & Lytle, S. L. (1999). The teacher researcher movement: A decade later. *Educational Researcher, 28,* 15-25.

Cranston, J. (2009, February). Holding the reins of the professional learning community: Eight themes from research on principals' perceptions of professional learning communities. *Canadian Journal of Educational Administration and Policy, 90,* 1-22.

Darling-Hammond, L. (2003). Keeping good teachers: Why it matters, what leaders can do. *Educational Leadership, 60,* 6-13.

Elmore, R. F. (2004). School reform from the inside out: Policy, practice, and performance. Boston: Harvard Education Press.

Freedman, M., & Goggin, J. (2008, June/July). 50 plus.

Community College Journal, 34-38.

Fullan, M. (2002). The change leader. *Educational Leadership, 59,* 16-20.

Garet, M. S., Porter, A. C., Desimone, L., Birman, B. F., & Yoon, K. S. (2001). What makes professional development effective? Results from a national sample of teachers. *American Educational Research Journal, 38,* 915-945.

Havelock, R. (1995). *The change agent's guide to innovation in education.* Englewood Cliffs, NJ: Educational Technology Publications.

Hinkle, D. E., Wiersma, W., & Jurs, S. G. (2003). *Applied statistics for the behavioral sciences* (5th ed.). New York: Houghton Mifflin.

Hodgkinson, H.L. (2001). Educational demographics: What teachers should know. Educational Leadership, 58, 6-11.

Huberman, M. (1989). The professional life cycle of teachers. *Teachers College Record, 91,* 31-58.

Johnson, S. M., & Kardos, S. M. (2005). Bridging the generation gap. *Educational Leadership, 62,* 8-14.

Lara-Cinisomo, S., Fuligni, A. S., Daugherty, L., Howes, C., & Karoly, L. (2009). A qualitative study of early childhood educators' beliefs about key preschool classroom experiences. *Early Childhood Research & Practice, 11,* 1-8.

Little, J. W. (1990). The persistence of privacy: Autonomy and initiative in teachers' professional relations. *Teachers College Record, 91,* 509-536.

Louis, K. S., & Marks, H. M. (1998). Does professional community affect the classroom? Teachers' work and student experiences in restructuring schools. *American Journal of Education, 106,* 532-575.

Lovingfoss, D., Molloy, D. E., & Harris, K. R. (2001). Preparation, practice, and program reform: Crafting the University of Maryland's five-year, multicategorical undergraduate program in special education. *Journal of Special Education, 35,* 105-114.

Lukacs, K. S. (2009). Quantifying "the ripple in the pond": The development and initial validation of the Teacher Change Agent Scale. *The International Journal of Educational and Psychological Assessment, 3,* 25-37.

Lukacs, K. S., & Galluzzo, G. (in press). Beyond teacher leadership: Teachers as the agents of school change. Teacher Development.

Margolis, J. (2008). What will keep today's teachers teaching? Looking for a hook as a new career cycle emerges. *Teachers College Record, 110,* 160-194.

Maeroff, G. I. (1993). Building teams to rebuild schools. *Phi Delta Kappan, 74,* 512-519.

Miles, M., Saxl, E., & Lieberman, A. (1988). What skills do educational "change agents" need? An empirical view. *Curriculum Inquiry, 18,* 157-193.

McCormick, J., & Barnett, K. (2008). A multilevel investigation of relationships between Australian teachers' career stages and locus of control. *Journal of Educational Administration, 46*, 8-24.

McLaughlin, M. W., & Talbert, J. E. (2001). *Professional communities and the work of high school teaching.* Chicago: University of Chicago Press.

Oakes, J., Franke, M. L., Quartz, K. H. (2002). Research for high-quality urban teaching: Defining it, developing it, assessing it. *Journal of Teacher Education, 53,* 228-234.

Richardson, V., & Placier, P. (2001). Teacher change. In V. Richardson (Ed.), *Handbook of Research on Teacher Education,* (pp. 905-947). Washington, DC: American Educational Research Association.

Rinke, C. R. (2009). Exploring the generation gap in urban schools: Generational perspectives in professional learning communities. *Education and Urban Society, 42*, 3-24.

Rossman, G. B., Rallis, S. F., Phlegar, J. M., Abeille, A. (1995). *Dynamic teachers: Leaders of change.* Thousand Oaks, CA: Corwin Press.

Seglem, R. (2009). Creating a circle of learning: Teachers taking ownership through professional communities. *Voices from the Middle, 16*(4), 32-37.

Stipek, D. J., & Byler, P. (1997). Early childhood education teachers: Do they practice what they preach? *Early Childhood Research Quarterly, 12,* 305-325.

Urbanski, A., & Nickolaou, M. B. (1997). Reflections on teacher leadership. *Educational Policy, 11,* 243-254.

Wasley, P. A. (1991). *Teachers who lead: The rhetoric of reform and the realities of practice.* New York: Teachers College Press.

Appendix

Teacher Change Agent Scale

Directions: Please indicate your level of agreement by circling <u>ONE</u> of the following choices for each statement:

SA = Strongly Agree   A = Agree   D = Disagree   SD = Strongly Disagree

1. I value working collaboratively with other teachers.	SA	A	D	SD
2. If I feel it is necessary, I will speak out and express my views to my colleagues.	SA	A	D	SD
3. I am known as a person who is not afraid to take risks.	SA	A	D	SD
4. I can adapt to the needs of my students when necessary.	SA	A	D	SD
5. I am able to assess/evaluate student understanding using a variety of techniques.	SA	A	D	SD
6. I know how to influence my colleagues.	SA	A	D	SD
7. I invest time in understanding my students' learning styles and interests.	SA	A	D	SD
8. I can help other teachers with their teaching skills.	SA	A	D	SD
9. I prefer to work alone.	SA	A	D	SD
10. I am reluctant to rely on others.	SA	A	D	SD
11. I can't get through to the most difficult (i.e., at-risk) students.	SA	A	D	SD
12. I believe that when teachers work together, they are able to influence practice in their schools.	SA	A	D	SD
13. I believe that in order for change to be successful, teachers must work together.	SA	A	D	SD
14. I know how to motivate my colleagues.	SA	A	D	SD
15. I am resistant to suggesting changes.	SA	A	D	SD

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