ANNUAL REPORT

Project: “The Strength of Social Influence as a Determinant of Organizational Change”
Primary Investigator: Stephen J. Mezias
Co-Primary Investigator: Ebony N. Bridwell-Mitchell
Researchers: Theresa Lant; Ray E. Reagans

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PROJECT PARTICIPANTS

The Research Team

The research team for the NSF-sponsored project, “The Strength of Social Influence as a Determinant of Organizational Change” includes Professors Stephen J. Mezias, Theresa Lant and Doctoral Candidate Ebony Bridwell-Mitchell in the Department of Management and Organizations at the New York University Stern School of Business. The fourth member of the research team is Professor Ray Reagans at the Temper School of Business at Carnegie Mellon University.

The theoretical and empirical work of the first investigator, Stephen Mezias, has provided substantial contributions to the field of organizational learning and change (e.g. Lant & Mezias, 1990; 1992). The investigator’s depth of knowledge about existing models and processes of organizational change provide the foundation for the development and testing of new models, such as the one focused on in this project. What the first investigator brings in theoretical, empirical and methodological experience, the co-primary investigator, Ebony Bridwell-Mitchell brings in hands–on experience in the industry context of interest for this study. With formal training in educational policy at Cornell University and Harvard University’s John F. Kennedy School of Government and ten years of experience in educational research, consulting and practice Ebony Bridwell-Mitchell is an expert on change and reform initiatives in public schools.

The primary investigators’ expertise in organizational change and the public school context is extended by the expert support of senior personnel and research team members who study the dynamics of social networks and sociocognitive models. Professor Ray Reagans brings expertise
in the interplay between social network structure and performance as well as how network structure influences the diffusion of knowledge and information (e.g. Argote, McEvily & Reagans, 2003). Professor Theresa Lant’s support provides critical knowledge in the construction of collective cognitive models and how sociocognitive models influence organizations, industries and markets (e.g. Lant, 1999).

The research team has been supported by two graduate students recruited from the New York University’s Steinhardt School of Education, one specializing in international education and cross-cultural studies and the other on the impact of visual culture on education to work as graduate research assistants. In addition, three graduate students from Columbia University’s Teacher’s College with experience and interest in qualitative/ethnographic research were contracted to conduct interviews at the field sites for Study I. Through the grant the project has provided the graduate students the opportunity to be involved in all phases of research project and sometimes taking the lead on organizational and directional issues related to the project’s development.

**Collaborations & Contacts**

*Year I.* During the first year the team worked with numerous school leaders to secure access and approval for work at multiple field sites. These contacts included representatives of the *New York State Department of Education* who were essential to gaining access to schools under registration review (SURR schools) and in developing valid survey measures for teacher instructional practices. The director and staff of the *New York City Department of Education Division of Assessment and Accountability* were critical contacts in obtaining the five-year performance history of all New York City public schools and identify schools under Title I regulation for this study. Other contacts included local instructional superintendents who represent the districts and regions in which schools are situated. As part of the development of the survey instrument the team conducted a set of focus groups at two pilot sites that included teachers and administrators. In preparation for an ethnographic pilot study of two schools the team met with researchers at *The Institute for Education and Social Policy* that has produced numerous research and technical reports on New York City SURR schools.
Year II. During the past year the research team has worked with chief officers at the New York City Leadership Academy in development of Study II that will focus on principals and their social networks. Mayor Michael R. Bloomberg and Chancellor Joel I. Klein launched the Leadership Academy as part of their Children First reform effort. The Leadership Academy is a non-profit organization that recruits, trains, and supports new and outstanding principals. Also, as part of the development for Study II the team has sought the feedback and support of New York City’s Council of School Leadership, the primary organizing body/union for NYC principals and other administrators.

**ACTIVITIES AND FINDINGS**

During the past two years the team has engaged in a number of activities that have resulted in the successful implementation of the research study. As originally proposed in the research grant proposal the project will be comprised of three separate studies. Presently, Study I is beginning its second year of implementation, Study two is in its early implementation phase and Study III is currently in development.

**Overview of Year I**

**Recruitment.** As previously discussed under the collaborations and contacts section, the research team worked with numerous contacts in the research and practitioner community to secure data, gain access to and prepare for entry into New York City (NYC) public schools. One hundred and fifty NYC elementary public schools were identified and solicited for participation in the research study. One-hundred New York City school principals were contacted and solicited for participation in a pilot focus group as part of the development of Study II.

**Data Collection.** During the first year a five-month ethnographic pilot study was launched and completed at two school sites, resulting in 27 (30-60 minute) formal interviews with teachers and administrators and 175-plus hours of field observations. This pilot study assisted in the development of the survey instrument and clarification of key research constructs. We collected school level performance data, student demographics and information on regulatory authorities for more than 650 NYC K-8 public schools. We also secured access for data collection at five school sites for Study I and conducted the first survey administrations at four school sites for
Study I. Furthermore, the research team began data analysis from ethnographic pilot and data entry of social network and opinion data from Study I.

Findings from the Pilot Study. In the panel review of the initial proposal, one reviewer noted that the researchers could improve the research design and findings if they were to: “spend more time in the field understanding the context for each site. For example, before doing the network survey, FUEL assessment and quantitative research, the team might spend one month studying the process of change. They might observe the patterns of behavior, decision rights, the balance of power, and the interaction of people noting contextual differences (different cultural and political systems) among schools sites identified as Surr.” In service of the above goal, the team identified two schools as sites for an ethnographic pilot study – one recently removed from the Surr list, one recently added. During the first year over 175 hours were spent at the sites collecting observational data and conducting interviews. The data collected was rich source of contextual understandings of the micro-dynamics of organizational change, particularly in the schools context.

The early learnings from the pilot study not only provided insights into the broad research question, “how do organizational members interactions and understanding affect organizational change” but they also highlighted important issues for the development of a valid survey instrument. The lessons learned from the pilot study cover general areas: 1) influences on member understandings of change; 2) influences on professional interactions and conversations; 3) influences on the relationship between member understandings, interactions and change and 4) contextual distinctions for feasibility, urgency, effectiveness and legitimacy.

Among the insights provided by the ethnographic study, our research revealed that member understanding of change are often moderated by training, experiences under old regimes, motivations, cultural schemas, demography and leader vision/expectations. Additionally, interviews with organizational members suggest that particular social spaces and social times completely structure interactions between organizational members. Also, tenure, status and expertise influence social network ties, as does school size and “morale” seems to serve as precondition for interactions among staff. Finally, findings from the study suggest that the
effects of understandings and interactions on change depend on oversight versus social support as a motivator for change, perceptions about the limited effects of change efforts, starting levels of human capital and other necessary resources/inputs. A key finding relevant to the development of a valid survey instrument was that organizational members make much more fined-grained distinctions when considering resources, effectiveness and pressure. For example, member conceptions of ‘resources’ have at least three dimensions, including, support from superiors, availability of work materials and training. Similarly, ‘effectiveness’ is related to test scores, student learning and the overall school climate. The researchers used these and similar findings to develop context specific survey items for the feasibility, urgency, effectiveness and legitimacy constructs.

**Overview of Year II**

*Study I - Recruitment.* During the second year of the project, five schools were successfully recruited as research sites. In order to better represent the New York City K-8 public school system and variation of academic performance within the system schools were recruited throughout the city. Two high performance schools with low constraints and two low performance schools with high constraints were recruited as well as one middle performance school with typical NYC Board of Education constraints was recruited as a control site. Due to extremely low response rates one of the low-performing/high-constraints was withdrawn from the study; we are currently working to secure at an alternative access at a field site.

*Study I - Data Collection.* Survey administrations A, B, C and D (of G) at all five sites were completed. There are over 200 participants enrolled in the Study I. The surveys were administered during the fall, spring and early summer of the school year. The research team also worked on data cleaning and error checking for Administration A, B and C and created a data guide/procedure manual for inputting and coding data. Preliminary analysis, such as exploratory data analysis, testing for order effects and question effects was conducted to further develop the survey instrument.

*Study I - Project Administration.* The research team provided principals from the five school sites with summary reports based on aggregate data from our exploratory data analysis. The
reports provided basic demographic information about the respondents and provided data to help principals assess teachers’ experiences in their school community by providing information about their feelings of closeness and the frequency with which they interact with colleagues. The report describes teachers’ reported use of different instructional practices and reported teachers’ views of whether change is feasible, given available resources, whether they feel pressure given the urgency and legitimacy of the change effort and whether they feel the change is effective. The report also described what teachers reported when asked about engaging in activities that might reflect their aspirations and commitment level at the school and whether teachers agree that their colleagues respect them. Principals were informed that the findings were preliminary only, and should not be made available for public use until the close of the study.

Findings from Study I. Exploratory data analysis was conducted to expand our understanding of the study population and to assist in survey development. Females comprised the largest share of the participant population, reflecting a common pattern among the teaching profession. Caucasians comprised the majority of the participants. This was true especially in the high performance schools. The lower and middle performance schools were the most racially diverse. The average age of participants was between 40 and 45 years old. Teachers at low performance schools were more likely to report being enrolled in teacher education courses or programs. In addition, teachers at high performance schools reported having on average more teaching experience than low performance schools.

Preliminary analysis of qualitative data suggests there are at least five important features of social interactions at these schools: 1) agglomeration to social spaces; 2) establishing norms and aspirations; 3) exchange of knowledge and skills; 4) material and psycho-social support; and 5) degree of connectedness. There also appear to be differences in discourse in schools at different stages of achieving isomorphic change. Discourse among teachers at schools that are early on in the process focuses more on conversations for understanding (Ford and Ford 1995) like telling stories about the schools history and mythic teachers and administrators. Discourse among teachers at schools that are further along seems to have a strong focus on instruction, suggesting their conversations focus more on action (e.g. Ford and Ford 1995).
Furthermore, teachers’ interpretations of issues that are important for change appear to correspond to themes the literature on organizational theory suggests would be most salient. For example, the importance of resources and the feasibility of change (e.g. Dutton and Duncan 1987) are represented by teachers’ discussions of resource allocations and support from staff and colleagues. Concerns about legitimacy (Oliver 1991) and urgency (Dutton and Duncan 1997) are reflected in teachers’ discussions of their school’s history and identity, the degree of involvement of external stakeholders and the pace and/or demands of the reform effort. Teachers’ discussions also suggest the effectiveness (Oliver 1991) of change is important given their concern with the way proposed changes would affect student academic and social development, however, attention to effectiveness appears to be less than that devoted to feasibility, legitimacy or urgency.

Study II - Recruitment. During the second year, the research team met with the Chief Executive Office and Chief of Staff at the NYC Leadership Academy to submit a research proposal as part of the project development for Study II. The proposal stressed the innovative research approach of focusing on principals’ relationships across school boundaries, such as those with other principals and central office representatives (e.g. the region and Department of Education) and how these relationships influence a principal’s capacity for effectiveness instead of the typical approach in social network studies in schools to focus on intra-organizational ties – e.g. interactions between administrators, teachers and students, that take place within school boundaries (Bidwell and Yasumoto 1999; Frank 1996; Friedkin and Slater 1994). Focusing on extra-organizational ties among principals, such as those fostered in the NYC Leadership Academy can be advantageous because of the role it can play in principals’ ability to be effective problem solvers. Often successful problem solving depends on the resources one can bring to bear on a particular issue (Lauman and Knoke 1987) and having access to the necessary resources can depend heavily on one’s relationships.

Study II - Data Collection. The research team conducted a focus group with NYC primary school principals to gather information about their perception of reform, how they know it to be necessary and what support or sources influence their efforts to improve their schools in order to develop research constructs for Study II that will focus on principals, their decision making
processes and social networks. Data includes three hours of video data recording respondents’ responses to interview prompts related to their school experiences, strategic choices and organizational missions.

*Study II - Project Administration.* To facilitate the development of the principal study an internal website was created for members of the team to find pertinent literature, access resource links and generate discussions regarding theory methodology development. Ongoing team meetings, with Professor Lant and Ebony Bridwell-Mitchell as the lead investigators, are held monthly as part of the planning, implementation and early research development of the study.

*Preliminary Findings from Study II.* The preliminary findings from our interviews with a group of New York City school principals suggests their relationships with central office staff and with other principals play a key role in determining the availability of discretion, support, information and good ideas for solving problems and implementing new policies. One principal of a lower-grade school in Queens described her efforts to initiate a continuing education program for parents who were recent immigrants so they could support student learning at home. This was an idea she ‘borrowed’ from a colleague and was able to implement with the support of her local instructional superintendent. Also, preliminary analysis of the focus group data suggest the importance of principals “core values”, formal education, professional training and collegial networks in developing mission statements for their schools.

**TRAINING & OUTREACH.**

As part of the outreach effort the team has talked with numerous scholars about the project and research initiative. These conversations and collaborations have resulted in refinement of the research ideas and design and have publicized the work to the wider research community. For example, the team’s conversations with Carol Ascher of the Institute for Educational and Social Policy provide a link to researchers with in-depth experience working with New York City public schools. Conversations with Professor Dorothy Shipps at Columbia University’s Teachers’ College and Professor Leslie Siskin at New York University’s Metro Center on Urban Education at the Steinhardt School of Education links the research teams efforts to scholars with an interest in educational policy and the politics of school reform. The research team’s forging of links to research communities interested in management and organizations is illustrated by our
discussions with Professor William Ouchi from UCLA about the overlapping themes in his new book, *Making Schools Work: A Revolutionary Plan to Get Your Children the Education They Need* and those of the research study. The research team also works continually and iteratively with the practitioner community by talking with school leaders about the relevance and validity of research frame and design. In service of the goal of making the research accessible and useful for the practitioner community we have provided research update memorandums at the request of school administrators and held discussions about key themes in the early research findings and how those themes might be useful for directing future change efforts.

As part of the projects training efforts, the research team has recruited and trained five graduate students and one undergraduate student to provide them with the necessary attitudes, knowledge and skills for conducting the highest quality academic research. Graduate students recruited from New York University’s Steinhardt School of Education and Columbia University’s Teachers College were trained in basic tenets of ethnographic observation and reporting and in conducting structured interviews. A part-time graduate assistant from New York University’s Steinhardt School of Education has been trained to fully-participate in all aspects of the research project, including theory development, data collection and analysis, project administration and reporting.

**Publications and Products**

**Year I.** The first year of the project was primarily devoted to planning, early implementation and development of the research studies. Consequently, publication of journal articles and book chapters is anticipated for future years. However, the research team developed a number of other specific products which includes a sample data base of all NYC K-8 public schools (for which data was available) organized by performance history and acting regulatory authorities and a website summarizing the research project and its development.

**Year II.** The second year of the project was primarily devoted to implementing Study I and planning Studies II and III. However, the research team has begun development of a set of working papers related to the project:
“The Discourse and Social Dynamics of Professional Communities: The Embeddedness of School Reform Efforts” (Bridwell-Mitchell, 2006) is a descriptive comparative case study of two schools involved in reform efforts as mandated by the state and local educational agencies. Based on analysis of data collected through structured ethnographic observations and semi-structured interviews the study reveals the importance of discourse and social dynamics in school reform efforts and in strategic responses to institutional pressures. Analysis suggests the outcomes of school reform efforts may depend on the teacher norms and aspirations, knowledge and skills, material and psycho-social support and the degree to which discourse is focused on instructional issues.

“Technical versus Institutional Sources of Responsiveness: How Agent Interpretations F.U.E.L. Isomorphic Change” (Bridwell-Mitchell, 2006) uses a retrospective case study design of one school facing strong pressures for isomorphic change. Through in-depth qualitative and quantitative examination of organizational members’ cognitive responses to institutional pressures for change, this work attempts to demonstrate how the interpretations of organizational actors are central to the variety of responses that have been observed to institutional pressures. Analysis indicates the salience of a number of key areas related to the feasibility, urgency, effectiveness and legitimacy of change.

“Cognition, Social Context, and the Emergence of Strong Ties” (Reagans, 2006) examines competing explanations for the social phenomenon of homophily. Specifically, it tests the effects of “demand” for interactions with similar others versus the “supply” of similar others as structured by the social context. Consistent with the idea in sociology that individuals interact with the kind of people they encounter most frequently (e.g. supply), analysis indicates that the number of times two individuals can interact does have a positive effect on the strength of their relationship, independent of social similarity. The findings are also consistent with ideas in social psychology about the relative importance of in-group versus out-group relationships (e.g. demand). In particular, network connections among socially similar people are stronger when similar people are part of a numerical minority.
CONTRIBUTIONS

One of the guiding motivations for the research study is the team’s belief that the studies positive results can empower organizational practitioners with understandings that help them better navigate organizational change. The model we test is of particular importance for organizations operating in complex, uncertain and ambiguous environments of which public schools are an example. Currently, there are multiple theories that attempt to describe the nature of organizational change but they leave one with a surprising lack of clarity about the fundamental nature of change and how to predict it. This research provides an analytical lens that unifies existing conceptions of change by examining its underlying mechanisms. This approach facilitates a much-needed dialogue between scholars of organizational change, scholars of social networks and scholars who study social cognition. Ultimately, the team’s research speaks to scholars and practitioners across diverse fields and in multiple domains, providing insight to those interested in organizational change, complex systems, social networks, sociocognitive processes, professional communities and education/schools.


