Chain Reaction: How Teacher Communication Influences Attitude About Reform

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Abstract
In this study, social network data collected from teachers in nine high schools were used to investigate the role that communicative peers (and individuals to whom they are connected) play in the formation of teacher attitude. The results of this investigation indicate that teachers are influenced by those with whom they communicate, and that the pressure of peer influence is amplified with increased involvement in communication. In addition, it is recognized that the role of peer influence is related to the attitudes of individuals with whom a teacher communicates directly, teachers who are connected only through an intermediary, or a series of intermediaries, do not influence each other's attitude toward reform.

Introduction
School reform seeks to change teacher practice. Change in teacher attitude is a necessary precursor to change in practice (Supovitz & Turner, 2000; Frank and Fahrbach, 1999).

Teacher attitude is related to the subjective norms in the environment (Ajzen & Madden, 1986).

A teacher's attitude is related to the attitudes of their peers in the school.

Sample/Data
9 high schools working with schoolwide improvement programs:
• First Things First
• High Schools That Work
• 717 teacher surveys (Average response rate = 67%)

Methods
Dependent Variable: 10 survey questions measuring teacher attitude about the reform (4-point Likert scale)

Independent Variables: Year's Teaching, Membership on a Faculty Committee, Department Chair

Methods – continued

Theoretical Framework

Teach for attitude about reform
Attitude towards reform
Intention to change behavior
Behavior aligned with reform

Subjective norm

Teach for attitude about reform

Research Questions
1. Are individual attributes associated with individual attitude about a reform? If so, which ones?
2. Are teachers’ attitudes about reform correlated with the attitudes of those with whom they engage in conversation about the reform?
3. Are teachers’ attitudes about reform correlated with the attitudes of those with whom they engage in conversation about any topic of professional or social concern?
4. What is the relationship between the number of communication partners that a person has and the correlation between partners’ attitudes and the person's attitude about reform?
5. Is the correlation between the attitudes of individuals not directly connected to a focal teacher and that focal teacher similar to or different from the correlation with the attitudes of those individuals in direct communication with the focal teacher?

Network Question Examples

Survey question
Network label

1. Are individual attributes associated with individual attitude about a reform? If so, which ones?
2. The impact of communicative alter attitude (in the reform network) was not significantly related to individual attitude scores (p = .04).
3. When all networks were used a potential pathway, an increase in average alter attitude by one standard deviation was associated with an increase in individual attitude by .29 standard deviations, after controlling for all other variables (p < .001).
4. The impact of alters’ attitudes differs depending on ego-network size. The impact of average alter attitude on an individual reaches statistical significance once that individual has at least three communicative connections, and influences teachers’ attitudes toward (and potentially implementation of) a reform through communication.

Findings

1. Membership on a faculty committee, and “communicative connectedness” (ego-network size) were positively related with attitude towards reform (p < .05 and p < .001, respectively).
2. The impact of communicative alter attitude (in the reform network) was not significantly related to individual attitude scores (p = .04).
3. When all networks were used a potential pathway, an increase in average alter attitude by one standard deviation was associated with an increase in individual attitude by .29 standard deviations, after controlling for all other variables (p < .001).
4. The impact of alters’ attitudes differs depending on ego-network size. The impact of average alter attitude on an individual reaches statistical significance once that individual has at least three communicative connections, and influences teachers’ attitudes toward (and potentially implementation of) a reform through communication.

Discussion
Teachers with formal or informal connections (membership on a committee or more network ties) are more likely to have positive attitudes.

While prevailing norms in a school may be important, direct connections appear to be more important than indirect ones.

Peer pressure becomes a factor in attitude formation once a teacher has three communication partners, more partners means more pressure to conform.

A small but well-connected clique of individuals can influence teachers’ attitudes toward (and potentially implementation of) a reform through communication.

References

Parameter estimates can be interpreted as Standard Deviation Units.