
Editorial Introduction

Social Networks in Education: Exploring the Social Side of the Reform Equation

NIENKE M. MOOLENAAR

University of Twente, The Netherlands, and University of California, San Diego

ALAN J. DALY

University of California, San Diego

Whether in research archives or in accumulated practical lore, the relational aspects of change occupy a prominent place. One might reasonably ask, then: What's new? What does social network theory have to offer that yields new insight and promises new tools for action? The answer is: a great deal. (Judith Warren-Little [2010, xi])

The importance and potential of social relationships have long permeated educational practice and research. Educational researchers, practitioners, and policy makers are more and more recognizing the potential of social networks in pursuit of increased instructional quality and student outcomes, as well as overall systemic improvement. In the United States, as is true in other countries, efforts at improving educational systems commonly consist of a variety of technical fixes including structures, processes, and accountability policies. Yet, while the more technical side of the change equation has been well documented, there is less evidence of the social aspects of the reform equation. In addressing this gap, we have assembled a collection of studies that foreground the relational linkages between and among educators at different levels of the system in an effort to better understand the role of relationships in teaching, learning, and educational change.

In change efforts, educational leaders and teachers typically play key roles in disseminating reform-related information, understanding and implementing

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new efforts, and aligning new practices with existing reforms. This suggests that the implementation of reforms takes place between and among educational actors who coconstruct, make sense of, and implement reform through a social process of interaction. Given that social processes are vital to how work in schools is accomplished, and to better understand these complex interactions, additional theoretical frameworks and sets of methods are indicated.

In support of this special issue, we have brought together a group of scholars who argue that social network theory can offer additional frameworks and methods, as well as provide valuable insights into how educational processes may be stretched across individuals and levels of the educational system. Generally speaking, social network theory is concerned with the pattern of social relationships between individuals or units, organizations, and even systems. A social network orientation entails a move from a primary focus on the attributes of an individual to understanding the supports and constraints of the larger social infrastructure in which individuals reside. Social network studies in education, as in other fields, focus on how the pattern of relationships between individuals may facilitate as well as constrain the flow of relational resources (e.g., attitudes, knowledge, expertise, and friendship) and offer insight into how individuals gain access to, are influenced by, and leverage these resources. The network perspective does not supplant the importance of individual attributes in understanding the selection, interpretation, and implementation of change, but rather offers a complementary theoretical framework and set of methods for examining the dynamics of social processes in education.

As is illustrated in the studies in this special issue, network data can be collected through interviews, focus groups, archives, and survey methods (Scott 2000). These relational data can then be analyzed through a growing and specialized set of methods, many of which are used across the studies in this special issue. Several foundational ideas underlie social network theory. First, actors in a social system are thought to be interdependent rather than independent, meaning that change in one part of the social system may affect other parts of the system. Second, social ties are regarded as the “conduits”

NIENKE M. MOOLENAAR is a postdoctoral researcher in the Department of Education Studies at the University of California, San Diego, and the Department of Educational Organization and Management at the University of Twente, the Netherlands. Her research interests include social network analysis, social capital theory, school leadership, and organizational behavior. Direct correspondence to nmoolenaar@ucsd.edu. ALAN J. DALY is associate professor at the University of California, San Diego. His research interests include urban district reform, accountability policy, and organizational change examined through the intersection of social network and learning theories.

through which relational resources (such as knowledge, advice, or social support) flow. Third, the structure of the social network influences the quantity and quality of resources that flow to and from a particular individual in a social system. Finally, patterns of relationships can act as both opportunities and constraints for individual and collective action. This special issue contains five rigorous empirical social network studies that highlight the aforementioned ideas in exploring how the quantity and quality of relationships and the flow of resources among and between educators may promote and restrain efforts at teaching, learning, and change.

The introductory piece in this special issue, “A Social Network Perspective on Teacher Collaboration in Schools: Theory, Methodology, and Applications,” by Moolenaar (2012, in this issue), sets the stage by introducing the social network perspective as applied to teacher collaboration in schools. It offers an introduction to social network theory and describes methods and techniques that educational scholars may use when exploring social networks in education. The article identifies typical characteristics of school networks that appear to hold across studies and explores how current educational studies use social network theory and methods to examine teacher collaboration and its connections with teaching, learning, and change.

Following this introductory piece are four empirical investigations into the structure and role of social networks in schools and districts that have been selected to provide a thoughtful overview of this emerging field of inquiry in terms of both setting and methodology.

In the first article, “Mind the Gap: Organizational Learning and Improvement in an Underperforming Urban System,” authors Finnigan and Daly (2012, in this issue) introduce a study that focuses on social networks of district office leaders, school site leaders, and teachers in high schools in a large urban district setting. Using a mixed-method approach, in which they combine quantitative network analysis with visualizations and in-depth interviews, the authors examine how educators’ networks may constrain the work of underperforming schools. Sparse ties between and among educators within the schools constrained opportunities for learning and development of change efforts, and the authors argue that the larger district system in which the schools reside influenced these improvement efforts at the school level.

The second article, “An Exploratory Analysis of Formal School Leaders’ Positioning in Instructional Advice and Information Networks in Elementary Schools,” by Spillane and Kim (2012, in this issue), likewise examines leadership in networks but takes a different perspective by moving the focus to elementary schools and zooming in on within-school networks. This article provides insight into how elementary schools organize for instruction by examining the flow of advice and information among educators within 30 elementary schools. By specifically focusing on the position of formal leaders

in their respective schools' networks as well as their membership in and distribution across subgroups, the authors conclude that the formal organizational structure of schools does not necessarily align with the informal flow of advice and information in schools. This work demonstrates that principals were often not central actors in their schools' instructional networks; rather, the leadership team members as a group played that central role in their schools' instructional networks.

Moving from a more leadership-oriented focus to teacher professional development networks, the next article, "Using Social Network Analysis to Study How Collegial Interactions Can Augment Teacher Learning from External Professional Development," by Penuel and colleagues (2012, in this issue), illustrates the potential of social relationships to augment the collective gains of professional development in a quantitative study of 20 schools. Using social network data on the relational patterns among teachers in these schools, the authors suggest that the professional development of teachers may actually benefit schools twice, once directly through knowledge gains and again through increased interaction with individuals who have received professional development.

The final article, "Supporting Sustainability: Teachers' Advice Networks and Ambitious Instructional Reform," by Coburn and colleagues (2012, in this issue), continues and extends the focus on teachers by examining the role of teachers' social networks in achieving sustained change. This longitudinal study, based on rich qualitative data, explores dimensions of teachers' social networks that affected the extent to which reform-related instructional strategies sustained over a 3-year period. The article reveals how the interplay between existing relationships, social interaction, and expertise supported teachers in adopting and maintaining reform-related strategies to improve instruction, even after the formal reform initiative had ended.

Following the set of empirical articles are two commentaries by leading scholars who reflect on the recent upsurge of social network theory and methods by discussing the results across the studies and connecting them to their own scholarship. In the first commentary, "Social Networks in 'Nested Learning Organizations,'" Resnick and Scherrer (2012, in this issue) share their views on the emerging field of network theory in education based on their experience implementing a reform in a large, underperforming urban district. They reanalyze results from their own work by drawing on the findings presented in this special issue and suggest connections that will inform and inspire practitioners and researchers alike to leverage the power of social networks as an analytic framework as well as a set of strategies. In the second commentary, "Teacher Agency in Educational Reform: Lessons from Social Networks Research," Datnow (2012, in this issue) traces a general history of educational reform and connects it to the importance of the role played by

teachers in change efforts. With a teacher-as-agent-of-change lens, she provides a set of lessons that cut across the articles and have implications for both research and practice.

Finally, the special issue closes with a book review by Kensler (2012, in this issue), who shares her experiences of learning about the field and its potential by reading and reviewing the book *Social Network Theory and Educational Change*, for which many of the authors from this special issue also contributed studies. Her insightful review provides additional, important framing of social network theory and its application to theory, research, and practice, as well as provides readers with an overview of this unique text.

In sum, the collection of articles in this special issue covers a wide range of settings in which social network studies in education have been carried out. These studies illuminate the primacy of social relationships in change efforts as well as the interdependent nature of social systems in supporting and constraining the work of reform. Social network theory and methods provide a conceptual framework as well as a set of sophisticated methodological approaches for more closely examining teaching, learning, and change. By adopting a social network perspective, these studies show how to not only better examine the interactions among educators by applying promising new tools, but also yield fresh insights that truly enhance our view on relationships among educational actors as they do the important work of teaching, learning, and change.

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