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The ecology of instructional teacher leadership

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ABSTRACT

Instructional teacher leadership, in which classroom teachers intentionally influence the practice of their colleagues, is a complex social dynamic. In this article, we argue for the use of an analytic framework that acknowledges this complexity, and we apply it to three cases of teacher leaders, all in the context of elementary and middle grades mathematics instruction. In each case, Urie Bronfenbrenner's ecological systems theory, complemented by social network analysis, proves useful for understanding the unique circumstances and the leadership activities in which the individual is able to engage. This comprehensive framework accounts for factors ranging from those internal to the individual to those inherent in the society at large, viewing the teacher leader as part of a complex social ecosystem of other individuals, institutions, policies and cultural norms. Following a brief overview of the theory, we apply it to the three cases in sequence. We conclude with implications for the field, both those who study instructional teacher leadership and those who train and support teacher leaders.

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1. Introduction

Teacher leadership has garnered the attention of researchers for the past three decades, resulting in a large corpus of studies investigating its multiple forms and impacts. Among practitioners and policymakers in the U.S., conversations about teacher leadership are ongoing at the school, district, state, and national level (Matlach, 2015). Former U.S. Secretary of Education Arne Duncan, announcing the Teach to Lead initiative,¹ offered the following broad definition of teacher leadership:

Teacher leadership means having a voice in the policies and decisions that affect your students, your daily work, and the shape of your profession. It means guiding the growth of your colleagues. It means that teaching can't be a one-size-fits-all job – that there must be different paths based on different interests, and you don't have to end up with the same job description that you started with. It means sharing in decisions that used to be only made by administrators, and the best administrators know they'll make better decisions when they listen to teachers (2014).

In our own research, we have studied teacher leadership conceived more narrowly – specifically, as an influential, non-supervisory process focused on improving instructional practice, with student learning as the paramount goal (Mangin &

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¹ The Teach to Lead initiative is organized by the National Board for Professional Teaching Standards and the U.S. Department of Education to increase opportunities for teacher leadership. The initiative was launched at the National Board on Professional Teaching Standards Teaching and Learning Conference in March 2014. See more at: <http://teachtolead.org/>.

Stoelinga, 2010; Muijs & Harris, 2006; Spillane, Hallett, & Diamond, 2003; Taylor, 2008; York-Barr & Duke, 2004). We refer to this form of leadership as instructional teacher leadership. Studies of school leadership networks point to the influence of such leadership (Spillane, Kim, & Frank, 2012; Stoelinga, 2008; Supovitz, 2008). For example, Stoelinga (2008) utilized network analysis to study the centrality of leaders within subgroups of teachers, and Supovitz (2008) analyzed network data to identify individuals with significant instructional influence. Others have focused on how teacher leaders work with colleagues and the direct and indirect influences of their practice (Fairman & Mackenzie, 2015). Muijs and Harris (2007) examined perceived supports and barriers to the success of teacher leadership efforts, characterizing the cases as examples of restricted, emergent, or developed teacher leadership.

Often, instructional teacher leaders occupy full-time, formal positions within a school's hierarchy (e.g., coach, specialist, mentor), affording these individuals dedicated time for leadership. However, teachers also serve as leaders while retaining full teaching responsibilities (Ash & Persall, 2000; Johnson & Donaldson, 2007; Pounder, 2006). Whether due to personal choice or budget limitations, leading from the classroom has become an increasingly common alternative to formal positions. York-Barr and Duke (2004) suggest that limiting leadership to formally designated positions implies "that leaving one's classroom or teaching practice is required to be intellectually reinvigorated and to learn with adults" (p. 259). Differentiating and defining roles in a hierarchical sense may even function as a barrier (Harris, 2003). The perceived isolation from peers as a result of assuming a formalized role may deter potential leaders, causing some researchers to consider the counterproductive nature of terms such as "teacher leader" (Fairman & Mackenzie, 2015).

We have been interested in the conditions that shape teachers' decisions about whether to take on instructional leadership roles, both formal and informal. Much of the research focuses on how teacher leaders, their colleagues, administrators, and policymakers – independent of each other – shape leadership opportunities. For example, some studies suggest that teacher leaders may emerge because of their personal confidence or innate desire to lead (Fairman & Mackenzie, 2015; Lewthwaite, 2006; Lumpkin, Claxton, & Wilson, 2014). Encouragement and continued support by administration at the school or district level appear in the literature as additional influences (Ash & Persall, 2000; Lumpkin et al., 2014; Mangin & Stoelinga, 2010). Other studies address school-wide cultural norms that hinder teacher leadership efforts, including "autonomy, egalitarianism, and deference to seniority" (Johnson & Donaldson, 2007; p. 8). Mangin and Stoelinga (2010) call for further examination of professional norms in order to gain "a deeper understanding of the conditions that facilitate and constrain teacher leader initiatives" (p. 58).

We were interested in studying the multiple factors that affect instructional teacher leadership from an ecological perspective – i.e., viewing the teacher leader as part of a complex social ecosystem of other individuals, groups, institutions, policies, and cultural norms. We wanted to understand how these factors interrelate to influence the teacher leader. Forty years ago, Urie Bronfenbrenner urged education researchers to consider individuals in their broader ecological context (Bronfenbrenner, 1976). In his paper, *The Experimental Ecology of Education*, Bronfenbrenner writes that "an ecological model calls for the conceptualization of environments and relationships in terms of systems" as opposed to research that describes "an array of variables that are treated as separable from one another" (p. 11). Although Bronfenbrenner's work was in the field of human development, he argued that the ecological approach applies to a broad range of research foci in education. This call, however, is not widely evident in studies of teacher leadership. The ecological systems approach has been applied explicitly, for example, to the study of leadership among science teachers (Lewthwaite, 2006), but overall, the literature presents little information regarding the interplay and complexity of factors that enable or deter teachers' pursuit of instructional leadership. Spillane's work on distributed leadership is an exception (e.g., Spillane, 2005, 2006; Spillane, Halverson, & Diamond, 2001) but does not apply ecological systems theory explicitly.

The purpose of this article is to explore the utility of ecological systems theory, in combination with social network analysis (SNA), as an analytic frame for understanding instructional leadership, in particular the factors that shape leadership opportunities. We first give a brief overview of Bronfenbrenner's ecological approach and SNA, defining terms in relation to full-time classroom teachers engaged in instructional leadership. We then present cases of three teachers who represent a range of instructional leadership, illustrating how an ecological approach accounts for the leadership activities in which they engage. All of the cases are in the context of elementary and middle grades mathematics instruction. We conclude with implications for the field more broadly, in terms of factors that both those who research and support instructional teacher leaders should consider.

2. The ecological systems perspective

Urie Bronfenbrenner began his career as a developmental psychologist when the controlled laboratory experiment was the norm. He argued against this approach to studying human development, describing it as "the science of the strange behavior of children in strange situations with strange adults for the briefest possible periods of time" (Bronfenbrenner, 1979, p. 19). Bronfenbrenner advocated instead for an ecological approach to studying human development, considering the individual as part of a complex ecosystem of influences. In addition, he argued that an ecological approach was appropriate to a wide range of research endeavors in education, not just the study of human development (Bronfenbrenner, 1976). Here, we provide a brief overview of the ecological systems perspective in order to situate the analyses of teacher leadership that follow.

The central figure in an ecological systems approach is the *individual*, who has an assortment of abilities, dispositions, aspirations, and beliefs that shape development, decision making, and ultimately behavior. The individual is situated in a

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