

Chapter 10

Mapping Problems to Solutions: Logic Modeling in a Graduate Teacher Leadership Course

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ABSTRACT

Faculty used visualization and inquiry methods to help teacher leaders in a master's course design problem-to-solution exercises. These assignments were based on an actual educational issue present in their school. By developing both a problem and solution model, students were able to experience real-world problem-based learning. This chapter presents theories supporting the approach, examples of exercises, and some lessons learned after working with 300 students over two years. Although taught online and to geographically dispersed students, the logic model exercise replicated many aspects of clinical experiences and provided professional skill development. The value of using logic models to represent real-world phenomena and to provide authentic learning experiences to teacher leaders is discussed.

INTRODUCTION

Next generation, PK-12 teachers are asked to not only lead instruction in their classroom, but also to act as leaders within their school and community. The constant call for reform and increased accountability has placed teachers in roles as instructional experts and facilitators of group change. These new *teacher leaders* are expected to scrutinize student data, adopt new instructional methods, and work with students, teachers, administrators,

and parents to improve student achievement. As teachers are increasingly viewed as key drivers in educational reform, their roles have expanded from teachers of students to facilitators of change (Hall & Hord, 2015).

Often, education graduate students already work in schools. This was the case with the majority of students in the courses discussed in this chapter. Therefore, faculty focused academic work on fostering knowledge and skills for professional practice, so that students were able to:

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- Break down and analyze student achievement data;
- Use empirical evidence for decision-making;
- Consider implications of human interaction and organizational behaviors; and,
- Generate alternative strategies to improve school practice.

One method often used in business and health sciences to teach organizational and human interaction is logic modeling. A logic model graphically describes participants, activities, and results of a program. “Program” is a generic term to identify a wide range of activities within an organization or institution. Educational policies, curricula, and interventions are all types of programs common in schools. The logic model is simply the conceptual and graphical representation of the resources used (money, people, and space), the activities carried out (participants and actions), and goals (short and long term outcomes and impact).

This chapter describes the use of logic models in a master’s level, teacher leadership course titled *Leading Achievement Change*. The authors outline the way logic models are incorporated into the online course and how the exercise provides an authentic learning experience situated in schools. It offers elements of clinical modeling and problem-based learning that transcend their online delivery, offering what the faculty members conclude is an authentic and practical learning opportunity.

BACKGROUND

Teacher Leaders

Reforms, beginning with No Child Left Behind and heightened under the Common Core State Standards (2010) place teachers and other instructional specialists under increased pressure

to show improved student achievement. School-based efforts include a variety of non-instructional endeavors. These may be oriented around analysis of student data, coordinating programs within the school, and working with others to improve teaching practices. These roles demand that teachers have the skills to coach others, review and dissect data sets, organize new programs, and work collaboratively with fellow teachers, administrators, and other district personnel (Donaldson et al., 2008). Situated as mentors or lead teachers, individuals find themselves in new roles outside of the more autonomous traditional role of classroom instructor (Lortie, 1975). Currently, many teachers, even those very young or new to a school, may be asked to act as a mentor or reformer working with others to change instructional behavior or improve programs. Increasingly, teachers must be capable of taking on a widening range of professional activities (Galloway & Lesaux, 2014).

The sense that teachers must serve what Lukacs and Galluzzo (2014) referred to as “agents of school change” (p. 11) appears to be a relatively new concept. Murphy (2005) reports a transition in teachers’ responsibilities over the past few decades. Teacher leaders in the 1970s and 1980s were departmental chairs. By the 1990s, teachers were asked to take on more responsibility in less formal leadership roles as curriculum developers and instructional coaches. In the last 20 years, literature encourages teacher leaders to be essential actors in the re-culturing, transformation, and organizational development of schools (Hall & Hord, 2015). Leonard, Petta, and Porter (2012) reported changing roles are due, in part, to popularity of theories about shared leadership and learning organizations that permeate educational leadership literature (Fullan, 2001; Sergiovanni, 1998). This also fits the national agenda of reform and accountability that has become the new mainstay in educational policy and practice (Ryan & Feller, 2009).

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