Chapter 4

Change Management in K–12 Education for Data-Driven Decisions:
Moving From Professional Judgment to Evidence

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ABSTRACT
Recent research in the business sector situates data use within a change management paradigm to maximize the potential for impact. Education leaders recognize the need to develop educator habits of mind and to address the people, policies, practices, and patterns of educational reform; yet, many grapple with making data-driven decision making (DDDM) a reality. This chapter includes: (1) descriptions of school data use mental models within Senge’s and Argyris’ organizational learning and change management theories; (2) it describe how building a shared vision and developing personal mastery, systems thinking, and team learning can change mental models and assist in moving to a culture of DDDM; and (3) it includes an explanation of the Prosci change management model to implement and sustain DDDM change.

INTRODUCTION
Educational accountability requirements and available performance data have expanded in recent decades (Irons, Carlson, Lowery-Moore, & Farrow, 2007), yet the education sector has been slow to embrace a culture of data-driven decision-making. These changes compel school leaders to build capacity to use data to drive decisions regarding alignment of services, opportunities, and student outcomes (Mandinach
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& Gummer, 2015; Wayman & Cho, 2009). The education sector is no longer able to largely disregard changes in technology and social culture and continue operating in its traditional ways.

The use of data is not without obstacles. Datnow and Park (2014a, 2014b) note that educators simply cannot expect positive results just because data exist. Five hazards from irresponsible data use include: (1) cheating on state-mandated tests, (2) implementing quick fixes for educational problems, (3) targeting resources to students just below accountability thresholds, (4) narrowing the curriculum, and (5) data overload (Datnow & Park, 2014b). High-stakes testing has been blamed for teachers and administrators altering students’ test answers and giving students the answers. This cheating phenomenon is common, and students whose scores are inflated often suffer academically for it (Sparks, 2016). Educators targeting resources to students just below accountability standards has lessened as accountability requirements now focus on student growth rather than benchmark achievements (U.S. Department of Education, Office of Secondary Education, & Office of State Support, 2015). Narrowing the curriculum to focus on math and language arts is a legitimate concern that, when implemented, can stifle students’ opportunities for a well-rounded education.

Data overload can be overwhelming for educators. Strong leadership and data-savvy administrators are needed to ensure accurate and germane data are available. Educators themselves should not be required to analyze data—a task few educators are trained to do (Sheltrown, 2014). These obstacles must be avoided. Although professional judgment will always play a role in decision-making, school districts are relying more heavily on data as accountability requirements have tightened. With accountability often tied to funding, data can no longer be ignored. The purpose of this chapter is to:

1. Describe mental models of school data use within Senge’s (2006) and Argyris’ (1999) organizational learning and change management theories;
2. Describe how building a shared vision and developing personal mastery, systems thinking, and team learning (Senge, 2006) can change longstanding mental models and assist in moving to a culture of data-driven decision making; and,
3. Explain how to utilize the Prosci change management model to implement and sustain data-driven decision-making change (Prosci ADKAR Model, 2012).

BACKGROUND

In the past, educators relied on the use of professional judgment rather than the use of data to select student learning paths. Historically, these judgments appear to have been influenced by cultural contexts, such as the careers and opportunities open to different races and genders. Minority and lower-income students were more likely to be placed in lower academic tracks than were their higher-income peers, even when data indicated otherwise. This disparity of opportunity has been documented repeatedly in education and the judgments continue to affect minority and low-income students despite evidence to the contrary (Abu El-Haj & Rubin, 2009; Achieve Inc., 2008; Bromberg & Theokas, 2014; Callahan, 2005; Edstar, 2009; Education Trust, 2006; Gamoran, 2009; Glass, 2002; Neff, Helms, & Raynor, 2017a, 2017b, 2017c; Moore & Davenport, 1988; O’Connor, Lewis, & Mueller, 2007, 1993; SAS Institute, 2009a, 2009b; Stone, 1998; Stone & Turba, 1999; Theokas & Saaris, 2013; Van den Bergh, Denessen, Hornstra, & Voeten, 2010; Vanfossen, Jones, & Spade, 1987).