Data is a tool. As a tool, it is up to the user to construct how, when, and why it will be used. In our decade of research studying districts and schools implementing data-driven decision making, we have learned that having a larger vision for data use by leaders matters a great deal. And data-informed leadership cannot be divorced from the setting in which it is practiced because the context structures how data is actually used. Any attempt to introduce or refine the process of data-informed decision making without fully understanding and acknowledging the local context will likely be fraught with difficulties. The people, policies, practices, and patterns (i.e. four Ps) comprise the setting, or context, of educational change. In order to support thoughtful implementation of data-driven decision making, understanding and assessing the context are critical for leaders.

Understanding the Importance of the 4 Ps

The four Ps shape actions, how educators think about their work, and even their level of commitment and are powerful shaping forces in school improvement. Lessons from decades of research and practice underscore that educational reform efforts cannot be fully understood unless their context is also understood. This is in marked contrast to earlier school reform that has been criticized for being insensitive to local conditions and factors, implying that recommendations for successful change could work in any school, at any time. Yet we know that people vary, places vary, and the ways in which people interact with the processes, tools, and artifacts that characterize educational reforms thus also vary. There may be some common patterns in how educational reform efforts unfold, but it has been well documented that the aspects of the local setting are critical and are intertwined with action at every moment in implementation.

The four Ps context-focused approach to understanding the implementation of data use pushes researchers and practitioners to move beyond simple questions of whether it is effective or useful for teaching and learning. It helps direct attention to the people and conditions that shape the process and its potential consequences. Every school and district setting is distinct. A school has a unique set of leaders and teachers with established habits and patterns of interaction. One has only to witness the departure of a few key players to see how large an impact people have on a school. People also have particular patterns of interaction within a given setting. In the same school, you can have a team of teachers that collaborates effectively to improve instruction alongside another that cannot stand to be in the same room together. In some schools, these teachers may wield a great deal of influence, whereas in others they have very limited decision making power. You may have a principal who actively confronts challenging problems or one whose style of avoidance or delay is the default mode of practice. Policies shape the work of schools more than ever before, and districts are taking an increasingly active role in educational reform and accountability increases at governmental levels. At the school level, such policies help to inform classroom practices, as teachers emphasize certain content areas over others, group students in particular ways, and so on.

If we look inside a school, we can see how protocols for doing things, ways of talking about students, and norms of interaction can either help or constrain the data-informed leader. Sometimes the
same features simultaneously help and hinder. For example, grade-level meetings afford opportunities for teachers to discuss data, but they constrain opportunities for cross-grade conversations. An inquiry-based teacher team in one school may view a tool designed to facilitate their conversations about student achievement data as an inhibitor to progress, whereas a teacher team at another school that is not sure how to start the conversation may see it as a useful guide. So too, standardized test data embody particular representations of what it means to learn and teach. They define both teacher conversations around data and the decisions and practices that result from it. State level standardized assessments can create an urgency to focus on students’ competencies in core subjects of English language arts and math while simultaneously reducing attention to other important subjects because they are not tested as often or at all. In a public school, teaching may be constrained by institutional barriers such as state testing guidelines, but these guidelines would not loom as large in a private school. In a community of politically savvy parents, the reform-minded actions of a group of teachers may be questioned but elsewhere parents might leave decisions to educators, allowing teachers to be more successful in advancing their reform agenda.

Implications for Data-Informed Leadership

What does this mean for data-informed leadership? It means that we cannot fully evaluate whether tools or practices are effective in data use without knowing how they are used in schools, each with their own unique four Ps. Data-informed leaders need to engage in all of these activities as well as remain keenly aware of the local conditions that may help or hinder the work. They also need to be very knowledgeable about data use themselves so that they can lead and model productive uses of data.

As leaders begin to grapple with the importance of context in their data use efforts, they would be wise to ask themselves the following questions:

- What is the prior reform history? What experiences have teachers had with other initiatives that may be seen as similar to this one?
- How stable is the leadership at the district and school levels? Is leadership spread over multiple individuals at the school level?
- Who are the key people among the teaching staff that will help or hinder data use efforts?
- What is the existing capacity of teachers and leaders to take on new goals or practices?
- What patterns of interaction exist among people that can either facilitate or thwart change?
- What current routines and practices may support data use? And what existing ways of doing things will get in the way?
- How do changing state and federal policies shape data use efforts here? How does the current record of achievement, as measured by accountability systems, shape the potential for data use?

By understanding the people, practices, policies, and patterns in a school or district, we can better predict how school improvement may play out at the local level. By taking a broader perspective on data use, the context-focused approach of the four Ps can help educators more fully understand the complexities of the school improvement process.
Additional Resources


Author Bios

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