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# LEARNING THAT MATTERS

*A Review of the Research on the Qualities of  
School Leadership Behaviors that Support Student Learning*

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## INTRODUCTION

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*What does it mean to lead learning that matters in schools?* This whitepaper aims to spark discussion about this question by examining the research-based qualities of school leadership that support student learning. It reviews concepts of school leadership in which leadership for learning is defined as the social behaviors of envisioning and influencing learning that matters in schools. Although leaders in positions of power can display leadership behaviors, others involved in the school – including parents, teachers, and students – also play pivotal leadership roles. The whitepaper reviews two kinds of research-based school leadership models that differ in the nature of learning that is required in order to reach the goals of school change: technical leadership models and adaptive leadership models. Though the specific leadership behaviors in each model are qualitatively different, research suggests that there are three types of key leadership behaviors in each: setting direction, developing people, and creating culture. The paper illustrates how these behaviors are manifested in the adaptive challenges faced by the Big Picture Schools.

## THE CHALLENGE

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The “Learning that Matters” whitepaper sketches the expanding universe of possibilities that schools and their leaders encounter when considering the central question of “what’s worth learning” in progressive 21st century schools. Moving beyond traditional content towards foregrounding thinking skills, global dispositions, and interdisciplinary topics that will matter most in tomorrow’s world requires a critical look at the leadership necessary to advance progress in this evolving context. Decades of research has shown that the quality of school leadership explains an astounding 27% of the variation in student performance, second only to classroom practices, which account for approximately 33% of the variation (Hallinger & Heck, 1998; Waters, Marzano, & McNulty, 2003). Leadership indeed matters. In addition to exploring leadership in schools at-large, the second aim of this project is to identify the qualities of leadership that specifically support learning that matters in Independent Schools of Victoria.

The illustrative cases of the Big Picture Schools, Quest to Learn, and Envision schools depict not only new ways that teachers lead students, and students lead one another, but reveal emerging lessons about the role leadership plays in supporting learning that matters. In recent decades many progressive schools such as these have attempted to depart from the factory models of school management that pervade public education and even some independent schools. Such models portray leadership as leaders in top positions making decisions and employees carrying out actions in as an efficient manner as possible. In simpler times, these centralized modes of execution work well. However, as noted organizational learning researcher Amy Edmondson points out, these efficiency models founder in work settings that are increasingly interdependent, uncertain, and complex (Edmondson, 2008).

Given the complex contexts in which today’s schools operate – dealing with the uncertainties of politics and funding, unpredictable booms in social media technologies, and unforeseen changes in a community’s make up and needs – adaptation and innovation are key to a school’s success. Traditional top-down management models of leadership alone are ill-equipped for dealing with such challenges. They focus on execution at the expense of experimentation. Instead, what is needed is a better understanding of new forms of leadership in which leaders continue to hold positions of influence and engage a variety of stakeholders to set (and reset) direction, propose and enact strategies, and evaluate success.

In this paper we aim to spark discussions about leadership that supports learning that matters in three stages. We will first synthesize canonical concepts that define leadership, then present two well-established research-based models of effective school leadership, and then explore some key questions that drive school leadership tuned to learning.

## UNDERSTANDING LEADERSHIP

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What *is* leadership? A quick search of books on Amazon.com shows how much the world is awash with a variety of writings on the topic. Though social scientists and organizational scholars who study the topic may hold differing views on issues such as the effect of leadership and how it is developed, there is considerable agreement on core elements of its definition. Leadership is not considered a characteristic of an individual, but rather a *social process of direction setting and influence* (Bales, 1951; Bolman & Deal, 2010; French & Raven, 1968; Hackman, 2002). In this sense, leadership is a verb not a noun. Leaders in positions of power create goals and affect the thinking and actions of employees, but they may not be the only ones. Others in the organization may be setting directions, giving feedback, and exchanging ideas in influential ways. As others within and outside an organization become more involved, researchers label these as collective, distributed, or democratic forms of leadership (White & Lippitt, 1960).

In schools, leadership means generating goals and influencing the thinking and behaviors of teachers, staff, students, and community members in order to set and accomplish shared educational goals (Schmuck & Schmuck, 1992). Setting a vision for the school, giving feedback on teacher and student performance, and clarifying the goals and direction during meetings are each acts of leadership. Each are processes of social interactions that enable a school to move forward toward its goal. And importantly, administrators, teachers, students, and community members can carry out these actions.

In this sense, leadership that supports learning is the ecology of social influences that impact the

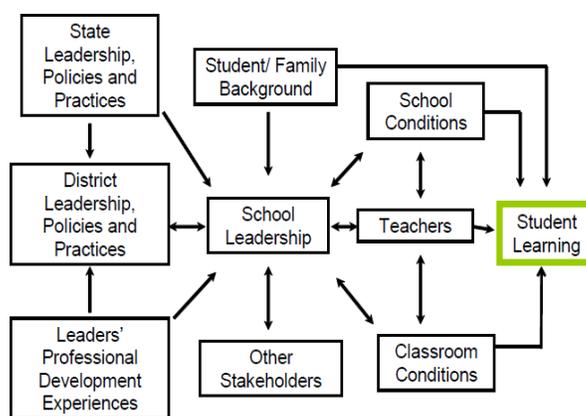


Figure 1: The ecology of influences on student learning

ways in which students take charge of their own learning and construct their own knowledge. As mentioned at the beginning of this white paper, teachers and their classroom practices are not surprisingly one of the biggest influences on student learning. However, school leadership plays a critical role in shaping the school conditions (including, for example, goals, culture, and structures) and conditions of teaching and learning (including the content of instruction, the size of classrooms, and the pedagogy used by teachers), which are directly responsible for the learning of students. Teachers' professional communities and the student/family background conditions also directly influence student learning. In general, researchers agree on the main components that comprise the ecology of influences on student learning, as depicted in Figure 1 (Louis, Leithwood, Wahlstrom, & Anderson, 2010).

#### **Key Ideas**

- Leadership is not a characteristic of individuals, but the social process of influence and direction setting in schools.
- The social influences that impact student learning come from an ecology of sources, including principals, teachers, and families.

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### **RESEARCH-BASED MODELS: ADAPTIVE & TECHNICAL LEADERSHIP BEHAVIORS**

The past decades have spawned a variety of investigations into the qualities of leadership that impact student performance and change in schools. Our synthesis of this literature reveals two related streams of research-based models that differ in the nature of learning that is required in order to reach the goals of change in schools: *technical leadership* models and *adaptive leadership* models.

Technical models examine school leadership behaviors needed to improve existing know-how or approaches (e.g. strengthen current project based learning strategies or improve existing cross-disciplinary teaching.). Though these can be challenging, the leadership behaviors are attempting to find solutions to fairly well-defined problems by tapping existing expertise and best practices (Heifetz, Kania, & Kramer, 2004). When addressing a technical problem, cooperation is crucial but the weight of problem-solving rests with the leader. Researchers refer to the nature of this learning as “first order change” or “single-loop learning”, referring to the feedback loop in which individuals and organizations incrementally modify actions based on the difference between expected and obtained outcomes (Argyris & Schön, 1996; Marzano, Waters, & McNulty, 2005). For example, suppose a school is aiming to improve student attendance rates finds that there is a mismatch between the expectation and the data collected. Learning then involves implementing familiar actions that strive to close that gap.

In contrast, adaptive models examine the leadership behaviors needed to transform schools and innovate in order to create new knowledge in the face of unclearly defined problems. It emphasizes the need for problem finding, experimentation, and developing new knowledge

and expertise where none exists. Researchers label the quality of learning in adaptive approaches as “second order change” or “double-loop learning” that requires individuals and the organization to question the values, assumptions and policies that led to the actions in the first place (Argyris & Schön, 1996; Marzano et al., 2005). When examining the persistent challenges a school may face, there may not be a clear solution or established procedure that can remedy the situation. For example, disproportionate student outcomes along race or class lines demonstrate the complexities of an adaptive challenge. Learning is required to define the problem, examine and alter assumptions, and experiment with solutions. Given their exploratory nature, adaptive models are less leader-centered and more distributed in nature than technical models. Reducing the challenge to a set of technical responses and looking to the school leader alone to solve the challenge will simply shift everyone’s attention away from critical introspection and disable some of our most important personal and collective resources for accomplishing adaptive work (Heifetz, 1994).

Researchers point out that the categories of technical and adaptive are not necessarily always separate in practice. They can regularly coexist when problems demand a hybrid of technical and adaptive leadership behaviors. For instance, a problem may be definable (technical), but no clear-cut solutions exist (adaptive). In the example of poor student attendance rates, the school leader may have a solution in mind, but the school leader cannot implement it simply by establishing a policy, and a solution that cannot be implemented straightforwardly is just an idea or a proposal. Ultimately, in such hybrid challenges, those contributing to the problem bear the primary responsibility for implementing the solution, including recognizing the problem enough to evoke change. The school leader may play a central role, but the responsibility for meeting the problem is shared (Heifetz, 1994).

Kind of Leadership Behaviors	Problem Definition	Solution & Implementation	Primary Locus of Responsibility
<b>Technical</b>	Clear	Clear	School leader
<b>Hybrid: Technical/Adaptive</b>	Clear	Requires learning	School leader and staff/students/parents
<b>Adaptive</b>	Requires learning	Requires learning	Staff/students/parents and school leader

**Figure 2: Adapted from Heifetz Situational Types (Heifetz, 1994)**

Moreover, engaging in adaptive models of leadership behaviors to solve ill-structured challenges will involve moments that may need technical leadership approaches. Put another way, engaging in double-loop learning will necessarily involve opportunities of single-loop learning along the way. However, schools can engage in single-loop learning without fundamentally questioning their values, assumptions, and policies. So it is helpful to consider these two models as co-existing and nested in practice and not seen as pitting one against the other or always one in preference to the other.

### Key Ideas

- There are two types of research-based models of leadership behaviors in schools: *technical* and *adaptive*.
- Technical leadership aims to apply and improve existing know-how in schools, while adaptive leadership aims to innovate and transform schools.
- It is crucial for leaders to diagnose the type of challenge of change they and their school is facing and selecting the appropriate leadership stance and behaviors.

Though the specific leader behaviors are qualitatively different in technical versus adaptive models, they are similar in that they are organized around three axes of influential activities: *setting direction*, *developing people*, and *creating culture*. What follows is a brief description of what the research suggests are the specific actions organized by axis (see Figure 3).

## TECHNICAL LEADERSHIP BEHAVIORS

One technical change approach in schools that has been well researched is the “instructional leadership” model (Elmore, 2000; Hallinger & Murphy, 1985). It is a task-oriented approach that intends to examine and refine classroom practices through providing direct feedback to teachers to improve practices. When school principals effectively engage in the specific activities below, they have positive, statistically significant impacts on student achievement and performance (Leithwood, Day, Sammons, Harris, & Hopkins, 2006; Louis et al., 2010; Waters et al., 2003).

**Setting direction:** In the instructional leadership model, the school principal provides focus by defining, framing, and communicating goals to staff and stakeholders. The leader keeps these goals in the forefront of the school’s attention.

**Developing people:** The leader actively monitors and evaluates teacher instruction and student progress and promotes building staff capacity to develop the knowledge and skills necessary to achieve goals spelled out in her vision. Teacher and student incentives are provided and academic standards are enforced. In addition, the leader provides teachers with the necessary resources, equipment, and materials needed to achieve goals.

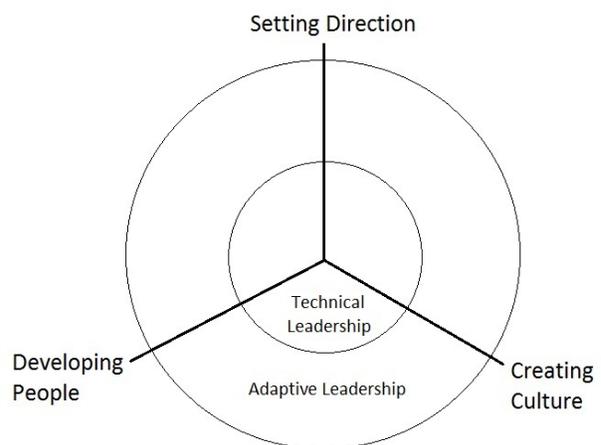


Figure 3: Nested Research-based Models: Technical and Adaptive Leadership Behaviors

**Creating culture:** The leader plays a fundamental role in enhancing the quality of relationships, establishing organizational processes and defining a school's values. She is visible and accessible to teachers and students and builds strong relationships with them. She creates clear organizational processes and rules for teachers and students that support school-wide goals. In instructional leadership, the leader protects instructional time and shields teachers from distractions. In general, the leader fosters a sense of cooperation and well-being in the teaching staff.

Researchers have shown that these technical leadership behaviors positively impact student achievement by enhancing teacher capability, teacher motivation, and classroom conditions (Louis et al., 2010).

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### ADAPTIVE LEADERSHIP BEHAVIORS

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In contrast, a well-researched adaptive leadership model is “transformational leadership”(Leithwood et al., 2006). Transformational leadership models prioritize shared processes among stakeholders and place a focus on problem finding and problem solving because it assumes that schools face “complex, idiosyncratic problems that are frequently hostile to routine solutions” (Hallinger, 1992). This model has been shown to improve student performance using the same types of leader behaviors but with differences in their specific qualities (Leithwood et al., 2006; Marzano et al., 2005).

**Setting direction:** In the transformational leadership model, the shared vision, goals, and purposes of schooling are co-developed with a variety of stakeholders (e.g. with students, teachers, parents, other school leaders, the larger community, etc.). The Principal or head of school plays the role of change agent, openly challenging the status quo and assumptions. In addition, she sets clear expectations of high teacher and student performance.

**Developing people:** The leader position provides intellectual stimulation to a variety of stakeholders (e.g. students, teachers, school staff, parents, community members, etc.). She builds staff capacity by influencing a teachers' disposition, motivation and working conditions and not solely a teachers' knowledge and skills. She experimentally creates mechanisms for individualized teacher and student support. The leader displays “situational awareness”, looking for non-obvious patterns of change in the school context and in the needs of staff and being responsive to those patterns.

**Creating culture:** In this model, the Principal or head of school confronts cultural challenges that are less clear, but leverages feedback structures that involve a variety of stakeholders (e.g. teacher teams, parental advisory boards, student councils, etc.) to define the challenge and participative decision making to problem solve. She promotes a collaborative culture of celebrating successes as well as acknowledging mistakes. The leader shows flexibility in her approach in the face of uncertainty and change.

Similar to the technical change model of instructional leadership, researchers have shown that the transformative leadership model yields significant, positive increases in student performance by increasing teacher capability, teacher motivation, and working conditions. However, it is different in that the leadership in adaptive models emphasizes collective purpose and leadership as a property of the system rather than as an individual. These and other studies have shown that schools with higher levels of collective leadership— in terms of giving influence to teacher teams, students, and parents – have higher levels of student academic performance (Louis et al., 2010). These studies suggest that schools that are able to transform educational practices effectively are those in which all students and teachers see themselves as having influence and holding responsibility for accomplishing school goals. In contrast, schools that struggle with adaptive qualities of change are those in which teachers and students feel they have no influence, which lead them to feel ineffectual, disengaged, and unhappy (Schmuck & Schmuck, 1992).

Two important caveats are worth noting. First, adaptive leadership models are not inherently better than technical models. It all depends on the quality of learning and change necessary given the challenges a school attempts to explore. What matters most is the diagnosis to determine which response will yield the most effective outcome. It is very problematic, for example, to apply a technical solution to an adaptive problem and it could be terribly inefficient and unnecessary to apply an adaptive solution to a technical problem. Secondly, the research on effectuality of both leadership models bases claims of impact exclusively on outcomes from student standardized academic achievement, graduation rates, or college placement. Likely ISV leaders have deeper outcomes and goals for their students. So there is an acute need in the field to find more comprehensive ways to assess the influence of leadership on 21<sup>st</sup> century learning outcomes (hence this project with the Independent Schools of Victoria).

#### **Key Ideas**

- Research suggests three key sets of leadership behaviors – *setting direction*, *developing people*, and *creating culture* -- that significantly impact student learning outcomes.
- These behaviors impact student learning outcomes by building teacher capability, increasing teacher motivation, and improving working conditions in schools.
- These categories of behavior cut across technical and adaptive forms of leadership, but differ in how collaborative and distributed influence occurs across stakeholders given the type of challenge a school is facing.
- Research to date has not examined the impacts of leadership behaviors to more progressive student learning outcomes (e.g. 21<sup>st</sup> century skills).

## TUNING LEADERSHIP TO LEARNING THAT MATTERS

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School leaders focus on a variety of technical and adaptive challenges that may not be directly concerned with student learning. Managing facilities, school staffing, developing community relationships, and fundraising are all important fronts addressed in the service of supporting high educational student outcomes, but not matters that deal directly with the nature and content of learning. When school leaders explicitly tune their attention to learning, there are typically three big questions they attempt to tackle: What is to be learned? How is it learned? And how do we know that learning has happened? These are questions about content, pedagogy, and assessment, respectively. The last two questions about pedagogy and assessment are understandably where most school leaders focus – be they teachers, principals, literacy coaches, or academic deans. Questions about instruction and evaluation are important and concrete areas of schooling. However, a hidden danger awaits: challenges of instruction and assessments often are framed as technical sorts of problems. Questions about improving known practices of teaching and assessments may not address more fundamental changes necessary for schools to effectively transform in the years to come. The aim of this project is to place more attention to the first question – what is the learning that matters? It is more open-ended and lends itself to an adaptive type of challenge requiring problem finding, exploration, experimentation, and development of new knowledge.

What does leadership tuned to learning that matters look like? Let us revisit the case of the Big Picture Schools ([www.bigpicture.org](http://www.bigpicture.org)) described in the accompanying whitepaper.

## LEADERSHIP BEHAVIORS AT BIG PICTURE SCHOOLS

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The Big Picture Schools (BPS) was co-founded by Dennis Littkey and Elliot Washor in 1995 to develop innovative and scalable forms of schooling focused on effectively supporting learning in the most disenfranchised populations of urban and rural students. For example in Detroit, Michigan only 25% of high school students graduate and 27% of those who do are accepted to college. By its nature, the problem is complex and historically no clear technical solutions have had significant impact. Understanding why this is and what can be done requires problem finding, experimentation, and development of new knowledge and practices where previously none existed. It is a challenge that requires adaptive forms of leadership. By involving multiple stakeholders to question fundamental assumptions about *what* is the learning that matters in these populations, BPS has had impressive results. Currently in Detroit, 96% of BPS students graduate from high school and 100% of those are accepted into colleges. To date, BPS enrolls over 26,000 students in twenty states in the United States, and another 5000 students in six countries around the world.\* BPS' on-time graduation rate in the United States is 90% (versus 70% in high-schools nationally) and over 95% graduates are accepted into college (versus 44% high school graduates nationally).

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\* There are currently thirty-seven BPS schools in Australia, including four operating in the state of Victoria.

What does leadership that supports learning that matters at BPS look like? The synthesis of research shared in this whitepaper suggests that much of their success may be explained by the quality of their adaptive leadership behaviors:

**Setting direction:** BPS leaders act as facilitators and agents of change by creating processes in which the goals and purposes of schooling are co-developed with a variety of stakeholders. What is worth learning is defined by using two guiding principles. First, learning must be based on the *interests and goals of each student*. Second, a student's curriculum must *be relevant to people and places in their community*. Students co-develop their curriculum with a school advisor who works closely to understand their interests, helps them make choices about what their day looks like, and selects workshops and classes. Students are expected to play a strong role in leading their learning throughout the year and creating their calendar and schedule. Based on their interests, students learn primarily through community-based internships in which they are partnered up with expert mentors who guide them through projects. Mentors work with students and their advisors to tailor the projects and internships to the students' learning goals. This creates interdependence between school and community since the community resources influence the educational programming. Advisors work closely with families and guardians, making home visits and soliciting their input, in order to best support students in making choices about their learning.

**Developing people:** BPS leaders create the mechanisms for individual student and staff development designed to empower and increase motivation. Students work with their advisors and mentors to design meaningful assessment criteria for their projects. Students document and discuss progress through quarterly meetings with their learning team that includes their advisor, mentor, and parents. Feedback to their learning includes quarterly public exhibitions, weekly advisor meetings, weekly journals, narrative assessments written by student & advisors, autobiographies, and yearly portfolio presentations. Advisors share insights and practices with one another on a regular basis. And BPS principals participate in ongoing, year-round professional development alongside their staff. They organize, plan, and facilitate these sessions with their staff and provide ongoing feedback to each staff member to ensure they are engaged and feel effective.

**Creating culture:** BPS leaders create processes in which problem finding and solving involves a variety of stakeholders in participative decision-making. The school functions through democratic governance with staff, often with strong roles for students and their families to contribute. The principal, staff, and advisors experience a yearlong training before the launching of their school to learn the values and practices of shared Leadership. Advisors have great responsibility for the daily organization of the school, making decisions about how time is best used, the planning and enacting of curriculum, and the methods of assessment.

Of course, as with many progressive schools' networks aiming to innovate, not all BPS schools may exemplify these leadership behaviors in such marvelous and uniform ways. We should be careful not to paint too idyllic a "picture". Instead, for our purposes, it is helpful to illustrate

how the general tenets of leadership at BPS illustrate many of the findings from decades of research on leadership that supports learning.

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