



STILL IN THE GAME:

HOW COACHING
KEEPS LEADERS IN SCHOOLS
AND MAKING PROGRESS

By Kathleen Drucker,
Jill Grossman,
and Nikki Nagler



www.nycleadershipacademy.org



Who We Are

The NYC Leadership Academy started in 2003 with our groundbreaking Aspiring Principals Program, which trained more than 550 principals, most of them women and leaders of color, who have served in some of New York City’s most challenging schools. Seeing our initial success in New York City, school systems across the country began approaching us to help them develop leadership pipelines and strengthen existing school and school system leadership practices. We now have worked with more than 185 school systems and educational organizations across 33 states and Washington, D.C., and we continue to expand our reach. As we engage with so many diverse communities, our own work continuously strengthens while our mission remains constant: to develop great leaders who can lead great schools by confronting inequities.

Mission: We build the capacity of educational leaders, at every level of the system, to confront inequities and create the conditions necessary for all students to thrive.

Vision: We envision a nation where every school and school system is led by transformational leaders who prepare all children, especially the traditionally underserved, for success.

Acknowledgements

This publication was a collaborative initiative involving individuals across the NYC Leadership Academy. Kathleen Drucker, Jill Grossman, and Nikki Nagler spearheaded the project and conducted the data collection and analysis. Staff across the Leadership Academy — including Mary Jo Dunnington, Nancy Gutierrez, Michelle Jarney, Kathy Nadurak, Francis Yasharian, and Irma Zardoya — lent their expertise and provided critical suggestions throughout the process.

We would also like to express our gratitude to the principals and coaches who generously gave their time and shared their experiences with us for this research. This research would not have been possible without their involvement, and we learned an incredible amount from their reflective practice.

Table of Contents

- 4** Introduction
- 7** The NYC Leadership Academy Coaching Model
- 9** Who Participated in the Study?
- 10** Findings
- 17** Implications
- 19** Appendix: Methodology

“Some people might say, ‘You don’t need a coach anymore. Your school is doing very well...teacher capacity is already there. You have built trust within your school community. You’re in a good place.’ But I have found that I needed that extra thinking partner. With education consistently evolving, you need to have a partner you can trust, who you can confide in and share your next thinking with... You want to have somebody with the strong instructional background and the experience working with the teachers, parents, and students. It’s beautiful that my coaches are able to share their expertise with me.”

– Principal Maria Vera Drucker, PS 376, Brooklyn, NY





Introduction

4

The role of school leader has become increasingly complex in recent years.¹ Principals are expected to do more with less. They must be building managers, instructional leaders, visionaries, and problem solvers. They are tasked with improving learning for each student while the demographics and needs of their students are shifting. At the same time, workplace demands for which schools must prepare young people are evolving. To make sure each student gets the support and resources she needs to reach her potential, school leaders must be able to adapt to these shifts and lead their staff in adapting to changes.

It's well documented that principals' work does make a real difference in students' learning experiences. School leadership accounts for as much as 25% of a school's impact on student achievement.² The effects of strong leadership are even greater in schools that are struggling. In fact, in an extensive study on school leadership, researcher Kenneth Leithwood and his colleagues found "virtually no documented instances of troubled schools being turned around in the absence of intervention by talented leaders."³ School leaders affect student achievement by improving teacher effectiveness, promoting a positive school culture, and supporting shared leadership.⁴

However, the increasing complexity of the principalship has made the role less appealing.⁵ Half of all new principals do not continue in their school beyond three years.⁶ And the pool of principal applicants is steadily declining because of stress, salary, and time demands.⁷

This high turnover makes it difficult for schools to succeed. When a principal leaves a school,

The most effective professional development challenges leaders' thinking, provides effective and actionable feedback, and includes opportunities for reflection. Coaching does this.

student achievement declines, teacher turnover rises, and effective programs and practices can falter.⁸ School leadership turnover can also lead to staff cynicism and mistrust, and can undermine professional relationships, hindering the ability of educators to collaborate on school improvement and limiting the sharing of ideas and practices across schools, which are important for a school's success.⁹

It takes an average of five years for school leaders to improve instructional quality and fully implement policies and practices that will positively impact a school's performance.¹⁰

To sustain this work and make real improvements in their schools, school leaders need support. School leaders show the most leadership growth when they receive ongoing, individualized, and job-embedded support.¹¹ The most effective professional development challenges leaders' thinking, provides effective and actionable feedback, and includes opportunities for reflection.¹²

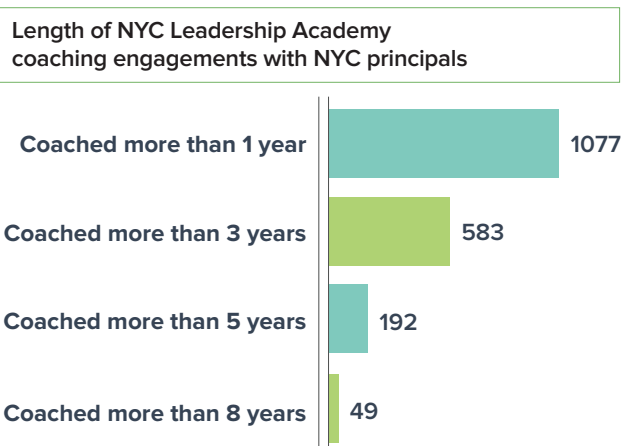
Leadership coaching, if done well, includes each of these elements, making it an effective form of professional development for school leaders.¹³ Coaching has been associated with improved student performance and a reduction in principal turnover.¹⁴ Because it is job-embedded, coaching can address a leader's specific challenges and provide the leader with opportunities to apply new knowledge and skills in their schools immediately.¹⁵ This type of professional development can be customized to meet the ever-shifting challenges and context principals face from year to year.¹⁶ Leadership coaching also provides confidential, ongoing dialogue with a thought partner to develop strategies that benefit the system.¹⁷

Currently, only about half of principals nationwide are engaged in mentoring and coaching as part of their professional development.¹⁸ This despite the expectations and values of the upcoming generation of school leaders: Millennials tend to look for jobs that offer professional development, coaching, and mentoring opportunities.¹⁹ This generation values detailed, regular feedback, a hallmark of good coaching.²⁰ And whether they are mid-career educators or considering a career change into education, members of Generation X also value opportunities for intellectual development and professional learning.²¹

In a recent survey, state education leaders across the country said that they are increasingly prioritizing coaching and mentoring as a way to develop school leaders.²² Still, states are primarily reserving coaching for novice principals or principals in need of remediation, as is seen in state's recent Every Student Succeeds Act (ESSA) plans.²³ Experienced principals also face challenges and require ongoing, job-embedded professional development to sustain and support them throughout their career.²⁴

Because most research on leadership coaching focuses on short-term, early-career support, the NYC Leadership Academy recently conducted a study of the impact of ongoing leadership support on leaders and their schools. At the NYC Leadership Academy, we have been formally coaching school leaders since 2005, connecting coaches with leaders to work together around an agreed upon set of skills, knowledge, and behaviors. In that time, we have coached more than 1,900 novice and experienced principals in more than a dozen districts across the country. Many of these leaders have sought out coaching for multiple years—more than 180 New York City-based principals have engaged in Leadership Academy coaching for five years or more.

The leaders in our study attributed to coaching their ability to stay in their jobs longer — their tenure at their school was more than double the national average — and to avoid complacency on the job.





6 Through in-depth interviews with a sample of these principals and their leadership coaches, we sought to explore how leadership coaching evolves over time, how the coaching needs of later career principals differ from early-career principals, and which aspects of long-term coaching are most useful.

Research Questions

Our study aimed to address the following questions:

1. What impact, if any, does long-term leadership coaching have on principals' leadership practices?
2. How does leadership coaching evolve over the course of the coaching relationship?

We found that the principals in our study stayed in their schools **more than twice as long** the national average of principal tenure in a school of 3.5 years. They also stayed longer than the average tenure in New York City, the district in which our research focused: In New York City, four out of 10 new principals leave their first school within five years.²⁵ All of the principals in our study stayed in their first school for more than five years.

What Does Good Coaching Look Like?

There are several features shared across coaching models that have had an impact on principals' leadership practices. In addition to being ongoing, job-embedded, and confidential, effective coaching creates opportunities for broadening and examining perspectives, includes the proficient use of questions to prompt reflection and action, and provides feedback that is ongoing, authentic, and honors unique needs.²⁶ Research on the Leadership Academy's coaching model found that it aligned with best practices for adult learning and identified commonalities with several other prominent approaches to coaching.²⁷

The NYC Leadership Academy Coaching Model

In the Leadership Academy coaching model, a coach and a principal work together around an agreed-upon set of competencies or skills, knowledge, and behaviors. The coach creates an environment in which the principal engages in critical and targeted reflection on her practice as it relates to the competencies with the goal of facilitating the behavioral shifts necessary for the principal to develop her leadership capacity.

Common activities during a coaching visit might include coach observations of the leader facilitating a meeting or working with staff and debriefing afterwards, role-playing conversations, and visiting classrooms together. At the Leadership Academy, we view the student as the ultimate beneficiary of coaching and aim to help leaders shift their mindset and behaviors so they can better serve their schools.

Our coaching work is grounded in a set of nine school leadership dimensions articulated in the Leadership Academy's Leadership Performance Planning Worksheet (LPPW), which was developed based on a review and synthesis of the research on key principal leadership behaviors and incorporates nationally used leadership standards, including the Professional Standards for Educational Leaders.²⁸ Each dimension has several focus areas which are aligned to specific leadership behaviors. For example, within the Equitable Practice dimension, leaders are expected to create systems and structures to promote equity for students. Actions a leader could take toward that end include encouraging student voice in decision-making and developing discipline policies that address student behavior in a positive and unbiased manner. These dimensions were originally developed by the Leadership Academy, in consultation with The Wallace Foundation and the state education departments of Delaware, Missouri, Kentucky, and Massachusetts and was most recently updated in 2016.²⁹

NYC Leadership Academy School Leadership Dimensions

Personal Behavior

Resilience

Communication

Personal Learning

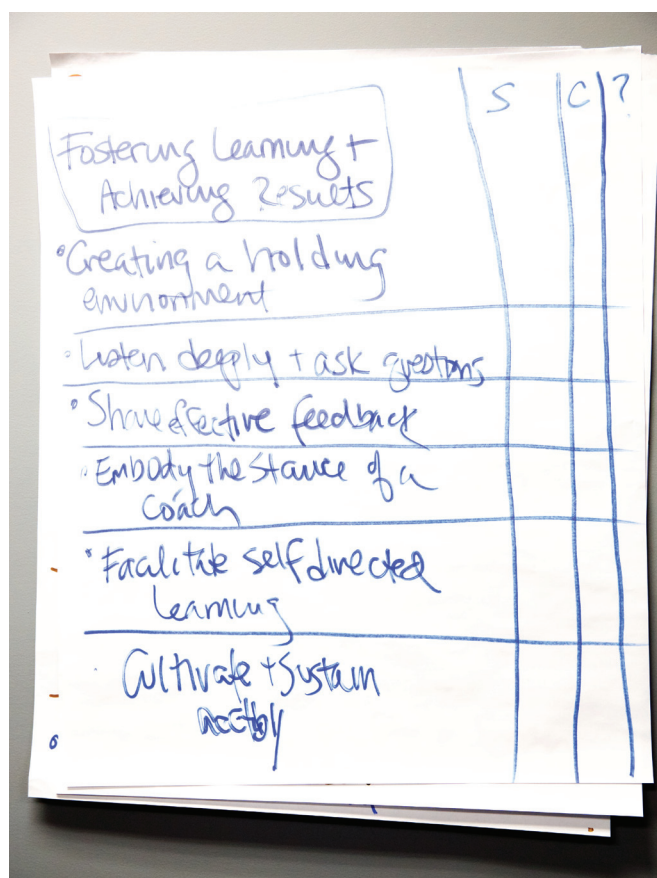
Problem Solving

Student Performance

Supervision of Staff

Management

Equitable Practice



Who are the Leadership Academy Coaches?

The New York City coaches employed by the Leadership Academy have extensive school and organizational leadership experience, as well as robust instructional knowledge, and expertise in the accountability tools and initiatives of the NYC Department of Education, though they are not current district employees.³⁰ Beyond these qualifications,

the Leadership Academy relies on a set of organizational coach competencies for hiring and training, such as the ability to share effective feedback, and use a systems-thinking approach to examine the leader's context.³¹ Coaches receive intensive and ongoing training in the program's coaching model, aligned with best practices recommended by Gary Bloom and colleagues.³² This training includes field observations by their supervisor and fellow coaches, differentiated support from professional learning communities, and participation in ongoing sessions focused on the priorities and initiatives of the district they are serving.

How Are Coaches Matched to Principals?

The Leadership Academy matches coaches to principals based on a range of criteria connected to their professional experience, including school level, student population, school location, past coach experience in the school, the leader's learning preferences and style, and any other specific needs the principal has expressed. In most cases, principals engaged in Leadership Academy coaching remain with a single coach for the duration of their participation, though they can initiate a change at any time.

The Coaching Relationship

At the time school leaders in this study entered the principalship, the Leadership Academy provided 72 hours of leadership coaching over the course of the principal's first year in the district as part of induction in New York City. After the first year, principals could choose to purchase further coaching using funds from their school budget. In each year of coaching, the coach and principal would jointly set goals for their work, rooted in a combination of school and leadership development needs. At the end of each year of coaching, the coach and principal would individually reflect on the progress made towards these goals. In addition, each principal had the opportunity to provide anonymous feedback to their coach about the value of the support and areas for improvement. A central feature of the Leadership Academy approach is that the coach is a confidential thought partner for the principal. Coaches were not involved in the formal evaluation of their coachee and did not share details of an individual coaching relationship with district leadership.

Sample NYC Leadership Academy Coaching Competencies

Set parameters for an effective coaching relationship

- Develop a shared understanding of what makes for an effective coaching relationship and establish norms and expectations to that end. Characteristics of an effective coaching relationship include mutual trust, vulnerability, honesty, respect, follow through, feedback, an openness to learning, and prioritizing time together.
- Articulate what coaching is and isn't, distinguishing it from counseling and other forms of learning. Situate it within a framework for meaningful adult learning.
- Define and enforce terms of confidentiality with the education leader and his or her organization.

Establish a foundation for equity

- Recognize one's own racial identity, experiences of privilege and/or oppression, and triggers and biases. Understand how those things have affected one's journey and perspectives and use professional judgment in sharing those aspects of self.
- Name equity as a Leadership Academy value, share what it means, and elevate it as a frame for the work. Equity means that people should receive what they need to achieve their potential, and their race and other aspects of their identity should not prevent access to opportunity.

Who Participated in the Study?

This study focused on principals who had chosen to engage in five or more years of leadership coaching for at least 30 hours per year. Of the nearly 2,000 leaders who had participated in Leadership Academy coaching over time, 180 principals had received this level of coaching. We narrowed this group down to the 63 principals who were still being coached at the time of data collection (see the Appendix on p. 19 for details on methodology). In total, 12 principals who varied by race, gender, school level, and coach were involved in the study, and who had received an average of 7.4 years of coaching. Almost all of these principals (11 of 12) have served in a single school for their entire tenure as principal.

Principals included in study

Case	Gender	Race	School Level	Principal Tenure at Current School	Years of Coaching
1	Male	White	High	5	5
2	Female	Asian	Elementary	6	6
3	Female	African American	High	6	6
4	Female	Latina	Elementary	6	6
5	Male	White	High	7	7
6	Male	White	Elementary	7	7
7	Female	White	Elementary	8	8
8	Female	Asian	Elementary	2	8
9	Female	Latina	Middle	9	9
10	Female	African American	Middle	9	9
11	Male	Latino	K-8	9	9
12	Female	Asian	Elementary	9	9

The 11 coaches supporting these leaders were also interviewed as part of this study.³³ Five of these coaches were male and six were female; the majority (9) of coaches were white. These coaches had 10 to 12 years of coaching experience with the Leadership Academy, along with extensive prior experience related to education, serving in roles such as teacher, instructional coach, principal, principal supervisor, superintendent, and executive director of a non-profit organization.

In 11 of these coaching relationships, the principal and coach worked together for the duration of coaching. In two cases, the coach had a preexisting relationship with the coachee—for example, one participant had served as assistant principal in a school where the coach had been supporting the principal. For more information on how this study was conducted, please see the Appendix.

Findings

We found that leadership coaching enabled the principals in our study to improve their leadership practice and skills, particularly in areas that tend to serve as ongoing challenges: staff supervision, leadership distribution, communication, and resilience. Interestingly, three of these areas require the ability to work closely with stakeholders, situations that are continuously evolving and require leaders to adapt their approach. The principals valued having the coach as a thought partner to support them in navigating these challenges, and their practices shifted as a result. The leaders in our study also attributed to coaching their ability to stay in their jobs longer — their tenure at their school was **more than double the national average** — and to avoid complacency on the job.

Impact of Long-term Coaching on Principal Practice

While the Leadership Academy’s coaching practice is intentionally customized to meet the needs of each school leader, in this study we found that the coaching tended to support principals in developing a subset of school leadership practices consistently across cases and over the course of the coaching engagement. Many of the examples cited by principals in these areas of practice were items that took the principal/coach years to make progress toward and/or resolve. They present adaptive challenges that are rooted in a complex problem that requires ongoing learning by the leader and other stakeholders in the school.³⁴ Addressing these problems requires **double loop learning**, using an inquiry-based approach.

Staff support and supervision

Supporting staff is a critical piece of a principal’s job. Without a strong and supportive principal, good teachers have often reported that they are more likely to leave their schools.³⁹ Most of our study subjects noted improvement in their ability to supervise staff as they grew as leaders, in part thanks to the coaching they received. This was a key area of school leadership that they continued to work with their coaches on beyond the first two years of their coaching engagement.

What is Double Loop Learning?

We approached this research with the lens of double loop learning, a theory originally developed by Chris Argyris.³⁵ According to Argyris, leaders have both an **espoused theory of action**—the values one believes their actions are based in (one’s ‘talk’) — and a theory-in-practice — the values implied by one’s actual behaviors (one’s ‘walk’). One’s **theory-in-practice** is often subconscious and may be in contrast with one’s espoused theory of action. In other words, our ‘walk’ doesn’t always align with our ‘talk’.³⁶

Stemming from these theories of action, there are two kinds of organizational learning: single loop and double loop. Single loop learning allows a leader to detect errors and problem solve using existing processes. However, in double loop learning, the leader questions his theory-in-practice and the beliefs and assumptions underlying his actions. Double loop learning is also challenging and often requires taking risks. The isolation and the environment of high-stakes accountability present in many schools may make principals reluctant to take chances and break free of single loop learning.³⁷

The concept of double loop learning has been used by others to understand and frame leadership education and coaching for school leaders specifically.³⁸ The techniques used to drive leaders toward double loop learning are rooted in inquiry-based dialogue, which is central to the model employed by the coaches examined in this study. The job-embedded nature of long-term coaching is particularly well-situated to encourage double loop learning. By observing a principal’s practice over time and developing a trusting relationship, the coach is uniquely positioned to illuminate a principal’s theory-in-practice and push the leader’s thinking in ways that can impact the school.

After working with her coach for six years, Principal Cara Tait of the Williamsburg High School of Arts & Technology said she and her coach spent about 70 percent of their time together on work related to staff supervision. In the early years, Tait said, her coach supported her in developing trust with her staff. Tait's predecessor had rarely conducted classroom observations, so teachers were wary of the new principal entering their classrooms; she was also much younger than some of her staff members. She and her coach role-played supervisory conversations, conducted learning walks together, and used protocols and other tools that helped Tait collect and use evidence from classroom observations to develop action plans for supporting staff members. Over time, the coaching sessions involving staff supervision evolved, focusing more on how the principal was distributing leadership across her staff. "Before, it was really focused on me and my role as a leader," the principal said. "Now it's less about who I am as a person and more about what we're doing as a school community." Staff seem to be responding to her efforts to build a strong team: A 2016 district review of the school rated teacher team work, teacher agency, and collaboration as areas of celebration. The review also highlighted Tait's efforts to enable teachers to take risks and to shape their own professional learning, and, the school's graduation rate rose by 17 percent over the last four years.

Distributing leadership

Distributing leadership is central to a school's success. If collective leadership is organized and managed effectively, it can have a greater impact on student learning than any one individual can.⁴⁰ This work can be challenging for both novice and experienced principals. The skills required to delegate tasks and build the capacity of others to lead can take time to develop, and they are skills that require ongoing learning and support.⁴¹

Noting the challenges that an early-career principal faces, some of the principals in our study said that it was only after a few years in their schools that they were able to focus attention on how they delegated work to staff and created a strong leadership structure at their school.



In the first years as a principal, Scott Hughes of Leon M. Goldstein High School for the Sciences in Brooklyn, New York, and his coach spent a lot of time observing instruction and debriefing what they saw. They discussed how to address the fact that many subject areas lacked core curricula, and that a number of teachers spent much of their class time lecturing, creating passive learning experiences for their students. He looked to his coach for support on how to make significant instructional shifts that his teachers would adopt and embrace. Through conversations with his coach, Hughes realized that mandating that his teachers change their instructional practices would not be effective—he wanted teachers identify and take ownership of pedagogical shifts. So he gradually created teacher teams to help lead instructional changes. Hughes joined a small working group of principals facilitated by his coach, and spent time learning how teacher teams function in other schools. The coach also led the group of principals in a visit to Hughes' school to observe his emerging teacher teams at work and give him feedback on next steps. The experience was a “breakthrough” for Hughes, he said. Over time, as the teacher teams became stronger, they took ownership of developing and overseeing implementation of new content-area curricula. To further share leadership responsibilities with staff, Hughes created an instructional cabinet of teachers from each subject area who helped develop school policies around budgeting, hiring, and professional development. Over time, teachers' trust of the principal has grown: In the 2017 district survey, 81 percent of teachers said they trusted the principal, compared to 65 percent of teachers two years earlier.

Communicating with stakeholders

Effective communication and the ability to establish trust with stakeholders are some of the major hurdles that can “make or break” principals.⁴² Developing communications skills is a process, and almost all of the school leaders in our study noted that they have worked on this skill with their coaches throughout their coaching engagement.⁴³

Throughout his principalship at Bard Early College High School, which has a selective admissions process, one of Michael Lerner's core values has been to make sure that the school is available to a diverse community of learners. Several years into his leadership, the district began an initiative to expand the number of special education students the school accepted—for years, special education students made up less than 5 percent of the school's student body. Through strategic conversations, Lerner's coach helped him view this mandate as an opportunity to support his commitment to student diversity, and to communicate this policy change to teachers through that lens. Teachers were pushing back on the policy change. Said Lerner's coach, “A huge communication piece was helping staff ... to see that we're not lowering standards, we're working on differentiating and scaffolding our instruction.” The principal worked with his coach on designing staff meeting agendas and role-played the conversations he would have to have with teachers about the shift. His coach helped him think through how individual teachers might react and encouraged him to talk with stakeholders individually or in small groups to discuss their concerns in a productive way before raising them in a larger staff meeting. Lerner also made sure to include respected and influential staff members in key decision-making around reviewing student applications and hiring special education staff. These efforts to serve a more diverse student population have been successful—in the most recent school year, 29% of students receive special education services.

Our study also found long-term coaching important for supporting communication with parents. For example, one principal said that, after taking over a school in which the previous administration would not meet with parents, his coach pushed him to consider what he wanted his relationships with parents to look like and what he hoped to accomplish. He began inviting PTA members and parents to school events. Engaging parents in this way helped build rapport and trust, ultimately allowing for more meaningful



dialogue. In a 2017 district survey, 95 percent of parents at this school said that the principal promotes family and community involvement in the school.

Building resilience: Staying in the principalship and avoiding complacency

Like other research on the impact of school leader coaching and mentoring, our study found that coaching can combat principal turnover, enabling principals to stay in their positions longer.⁴⁴ Several principals in our study said they would not be principals today if not for their coach. The average tenure of the principals remaining in one school in our study is seven years. That is more than double the national average principal tenure in one school.⁴⁵

Principal Cara Tait said that frustrations with the job had led her to seriously consider leaving her school, either to start a new one or to leave the principalship altogether. Over a number of coaching conversations, her coach pushed her to reflect on what her dream school would look like. “What skills would you want your graduates to have?” her coach asked her. “How, and why, is your vision for this new school different from the you have for the school you currently lead?” Through these conversations, Tait began to consider whether her current school could become her dream school. She documented her vision into a set of expectations for her school’s alumni, a pact the school still lives by today. Teachers valued her more focused vision: In a 2017 district survey, 90 percent of the school’s teachers said that she was communicating a clear vision for the school, placing the school above the district average.

Coaches in this study also helped principals avoid complacency by pushing them to continuously strive to improve the school even after initial, often significant, improvements have been made. One principal said that when his school data had “plateaued” several years into the coaching engagement, his coach facilitated a “systems-thinking” visit in which several coaches observed different aspects of the school and interviewed staff, focusing on the use of data to inform instruction and teacher teams. This extensive walkthrough helped



the principal realize that some of the staff capacity and school structures he'd built early in his tenure had eroded due to gradual staff turnover. "[My coach] helped me see that I was still leading as if I was working with the staff I had nine years ago," the principal said. "I've kind of begun this journey to today, to reignite, and get the school back to where it needs to be. Because the school's shifted and it's changed."

How coaching evolves over time

The Leadership Academy coaching model is intended to change and adjust as the developmental needs of the principal change. This is good practice, since the support school leaders need will look different as they develop and grow.⁴⁶

While consistent engagement in leadership coaching helped most of the principals in our study develop the leadership skills detailed in the previous section, we also found that the longevity of these coaching engagements strengthened the coaching relationship. We found that the longer a principal and a coach worked together, 1) the more they trusted each other and felt willing to take risks; 2) the greater the comfort level the staff had with the coach; 3) the more the principal directed the coaching sessions; and 4) the more they worked on adaptive rather than technical challenges.

Developing a trusting relationship

The leadership coaching field has repeatedly highlighted the importance of trust as a foundation for successful coaching to take place.⁴⁷ Trust, safety, and respect are essential preconditions to support growth in others and ourselves,⁴⁸ which takes time and a safe environment to develop.⁴⁹

In this study, we found that there are specific aspects of long-term coaching that have allowed for a deeper trust to develop between the coach and the school leader than you might typically find in other forms of professional development. For example, the length of the coaching engagement allowed the coach to

develop a deep knowledge of both the school and the principal's context and history. One principal said that her coach is able to push her because he knows her so well after 12 years of coaching. This aligns with organizational learning expert Chris Argyris' idea that the coach has had ample opportunity to observe the principal's 'existing theory of practice' and is well-situated to name and challenge it.⁵⁰ Said this principal, "There's no gray area with us. He knows me as a person, not just as a principal. ... He knows when I'm uncomfortable. He knows when I've become complacent. ... When I give him a gray answer, he says, 'No. That's not what it is. Let's get to the root of what it is.' ... Sometimes, when you're busy, you just want to go take care of stuff, and he doesn't allow me to do that. It's like, 'Let's focus on the work. Let's talk about this.'"

Increasing comfort level with school staff

In our study, as each coach developed her relationship with the principal, the coach became a familiar face in the school. This meant that the staff became more comfortable with the coach, which translated into the coach being able to observe more genuine moments of the principal interacting with staff, and to work directly with other leaders in the building to help them develop their capacity to support the work of the school and the school leader. One coach noted that because the teachers at a school had gotten to know her over the eight years she has been coaching their principal, they have become comfortable with the coach observing the principal giving them feedback. Said the coach, "Many times we do walkthroughs together and he'll give feedback to the teacher right there in front of me." By observing real interactions between the school leader and his teachers, the coach has been able to give more targeted guidance to the principal.

A few principals in our study also noted that the coaching directly benefitted their staff. One principal explained how his leadership team came to see the value of coaching after seeing the principal benefit from it:

Members of my team now also see [my coach] as a resource. Initially, they were a little gun shy about it ... I was saying to them, 'You need coaching,' and then they took that as a negative. I think it's evolved now where they also see him as a valuable partner and someone that they can reach out to and someone who can really help them think through not only situations they're dealing with, but their working relationship with me.

Principals take greater ownership of the reflective practice

As the coaching relationship develops, we also found that the principal increasingly determines the focus of coaching sessions, as opposed to the coach setting the agenda. As the principals became better able to assess their own needs and became more familiar with their coach's style and strengths, the principals knew how to maximize their coach's expertise and make the most of their sessions together. "For a while, I would dance around a topic for a long time before we would get to the root of the problem," said Principal Cara Tait. "Now we're able to just jump into sessions that used to take four hours; after a two-hour session with my coach, I feel recharged and ready to go."

Increased focus on adaptive challenges

Over time, we found that the coaching becomes more focused on adaptive challenges that require double loop learning. While the approach of Leadership Academy coaching strives to address adaptive challenges from the start of the engagement by taking a systems-thinking approach and questioning underlying assumptions, we still found that often early in the coaching relationship, principals needed support around more technical challenges that may be time-sensitive or critical to the school's safety, such as school security issues or crumbling or unkempt facilities. With experience, principals said they had less need for technical support from their coach, so long-term coaching focused more deeply on adaptive leadership.

When David Cintron first became principal of PS 214 in the Bronx, his coach, he said, was invaluable with helping him develop and go through a checklist of technical challenges – from setting new passwords to addressing security-related issues. With time, their work together focused more centrally in the realm of adaptive change. For example, Principal Cintron’s coach provided ongoing support around his personal behavior and how it shapes his interactions with staff. His coach described Cintron as “extremely charismatic” with high expectations for his team. Depending on how these traits are expressed, they can either be strengths or can deter staff members from expressing their own ideas or feeling comfortable taking risks and making mistakes. Cintron’s coach worked with him to structure staff and team meetings in ways that encouraged participation, giving careful thought to every detail, from agenda design to where Cintron sat at the table. After observing meetings, his coach would also debrief with Cintron about his body language and other behaviors during the meeting. This work, Cintron said, got him to reflect on his behavior and how it can impact staff voice, and to make changes as needed. Says Cintron, “it’s been helping me to become more of a coach to my team and to find that very delicate balance between being their supervisor and building the capacity of my assistant principals and helping them to build up their practice, very much the way [my coach] has helped me over the years.”

Confidentiality as key characteristic of long-term coaching

Perhaps the most important feature of the coaching relationship for principals was that it was confidential and does not impact their formal evaluation. This allowed principals to be candid and removed some of the defensiveness that might be present in conversations they would have with their supervisor or their staff.⁵¹ “I consider [my coach] the go-to person if there’s a problem.... the fact that he’s not an evaluator is critical,” said Principal Lerner. Another principal noted, “With my coach, I’m able to have candid confidential conversations that are about me thinking through some dilemmas that don’t have an easy answer.” The coaches see their role similarly. Said her coach, “I wasn’t there to judge her, I wasn’t there to criticize ... I was really there to help her try and figure out whatever it was that she needed figuring out both professionally and personally.”

Improving long-term coaching

While the principals in our study saw many benefits from their coaching support, the data also suggested some ways that this practice could be strengthened.

In some instances, the close relationship that coach and principal develop over time seemed to have shifted the coach’s approach away from a facilitative stance, the practice of asking questions to get coachees to reflect on their work that is critical for double loop learning.⁵² While the coach may still be providing useful support to the principal, this support might not always push the principal’s leadership development. For example, one coach described how she and the principal have been reviewing resumes or the school budget together in a collaborative fashion, working as peers. Rather than using coaching strategies to support the principal in arriving at her own decisions, the coach said she is more direct and is making decisions together with the principal.

The other challenge for long-term coaching seems to be figuring out when and how an engagement should end, and to balance ongoing support with a leader’s independence. Principals who receive coaching from Leadership Academy coaches have an opportunity each year to formally reflect on progress towards goals and provide feedback on their coaching.

Questions a coach and leader can consider together include:

- To what extent have goals been attained and desired impact achieved?
- What are the next goals I want to achieve?
- How can coaching support that work?

Implications

Educational leaders are increasingly prioritizing developing and supporting strong school leaders, thanks to a growing body of research on the impact that school leaders have on student learning, as well as increased flexibility offered by the federal Every Student Succeeds Act (ESSA) to invest in school leadership.⁵³ A small but growing body of research has pointed to the positive impact coaching can have on a school leader's ability to lead. Some state education officials are responding to that research. A recent survey of chief state school officers found that 77% are prioritizing principal coaching and mentoring principals in their states; 73% of state school officers named developing professional development programs for veteran principals as a top priority.⁵⁴

As states and districts consider whether and how to create or expand coaching programs for their principals, they will be considering who should receive coaching, and what that coaching should look like to have the greatest impact. Many of the states that have included coaching in their federal ESSA plans specify coaching is for novice principals or principals in need of remediation.⁵⁵ However, veteran principals benefit from coaching, too.⁵⁶ The need to reflect on and improve leadership practices does not end after the first couple of years as a principal.

The findings from our study suggest that the ongoing learning afforded from long-term coaching supports school leaders in improving their leadership practices and enables them to stay in their jobs longer, factors that prior research has found lead to improved student learning in schools.⁵⁷ The



principals in our study, all of whom have been receiving coaching for at least five years, have remained principals in the same school more than two times longer than the national average (seven years rather than just three years). Given the detrimental effect leader turnover can have on a school, this is a critical impact for states and districts to consider. The principals also reported improving the way they supervise staff and distribute leadership opportunities across the building and communicate with stakeholders.

Given the dearth of strong leaders available to fill open principal positions, states and districts can also consider the expectations and values of the upcoming generation of school leaders.⁵⁸ Millennials tend to seek employment opportunities that offer professional development, coaching, and mentoring opportunities.⁵⁹ This generation also tends to value detailed, regular feedback, a hallmark of good coaching.⁶⁰ There is also evidence that members of Generation X, whether they are mid-career

educators or considering a career change into education, value opportunities for intellectual development and learning in their work.⁶¹

Of course, states and districts need to consider not only the length of time for which coaching is offered, but who will provide the coaching and what the coaching will look like. The coaches in this study received extensive and ongoing training in the Leadership Academy's facilitative model. We also found that providing principals with an ongoing, non-evaluative thought partner who offers confidential professional guidance, and helps them reflect as a means for ongoing learning, can be critical to enabling a principal to truly improve his practice and make lasting changes at his school. For systems who cannot provide principals with a non-evaluative leadership coach, principal supervisors can take on this role, if trained well. Recent research suggests that there is value in principal supervisors focusing on leading job-embedded professional learning for principals.⁶² However, districts will need to consider the limitations of someone who is also responsible for evaluating the leader.⁶³



While states, districts and schools must be mindful of the costs associated with any professional learning, research has found that money can be saved by providing coaching. Using data from Washington state, Lochmiller⁶⁴ estimated that it would cost as little as \$143, 975 per year to provide leadership coaching to 89 newly hired principals in high poverty schools. Compare that to the cost of replacing one outgoing principal, which some research has put at about \$75,000.⁶⁵

States and districts can also consider other cost-effective means of providing confidential, non-evaluative coaching. The Leadership Academy did offer some principal group coaching; the coaches convened groups of principals to share ideas and support one another. While this aspect of the coaching program was not a focus of this study, several principals did mention the value of connecting via coach with other principals.

For recommendations on how states and districts can use this research in their own school leader professional development planning, please read our research brief companion.

Appendix: Methodology

Data We Collected

We conducted in-depth, semi-structured interviews with each principal and coach (separately) in spring 2017. Coaches working with multiple principals in the sample were interviewed separately about each coaching relationship. In total, we conducted 25 interviews lasting approximately one hour each. Interviews were conducted by all three members of the research team; when possible, two members of the research team were present to encourage consistency across interviews.

The conversations were guided by interview protocols that focused largely on areas of principal practice that may have been impacted by coaching (aligned to the leadership dimensions grounding this coaching model). Follow-up questions sought to understand the strategies coaches used to support shifts in principal behavior in each of these areas of leadership. The protocol also included questions about how the coaching had changed over time, why the principal continued coaching, and any areas of discord in the coaching relationship (e.g., areas of disagreement, where the support was lacking). Interview data were corroborated and supported using publicly available data collected about each school.

How We Analyzed the Data

We sought to identify ways that principal practice had shifted as a result of coaching, what characteristics of the coaching relationship supported these shifts, and how the coaching had evolved over time. The analysis was conducted collaboratively by the three members of the research team in several stages. First, an initial coding scheme was developed based on the interview protocol. This coding scheme was applied to a subset of the interview notes and transcription data by all three members of the research team, using a qualitative data analysis software. Preliminary inter-rater reliability statistics were calculated using Cohen's Kappa, which provides a measure of the level of agreement between two raters while accounting for agreement due to chance.⁶⁶ These statistics, along with notes taken by the research team during the coding pilot, were used to refine the coding scheme—clarifying, collapsing, and further differentiating codes. The refined coding scheme was applied to all cases. At least one interview was double-coded by each member of the research team, to help ensure that we were applying the coding scheme in a similar manner. Using a combination of the detailed codes and case memos, the research team jointly identified trends across cases, guided by our initial research questions and conceptual framework.

Study Limitations

We recognize that this study focused on a small sample of leaders working in a specific context—a large, urban school district. It is possible that some aspects of coaching were particularly beneficial for leaders due to this setting. For example, leaders may have placed a particularly high value on consistent support because they were navigating a system that was complex with numerous initiatives. These principals also self-selected into long-term coaching engagements. While this speaks to the value that the principals saw in this support, it is possible that there is something unique about individuals who sought out this form of professional development. We cannot make causal claims about the impact of coaching on their leadership success. Lastly, this research focuses on the perceptions of those closest to the work—leaders and their coaches. While these individuals are best positioned to speak to the arc of the coaching relationship, future research could benefit from the perspectives of principal supervisors or other school staff.

Endnotes

- ¹ Davis, S., Darling-Hammond, L., LaPointe, M., & Meyerson, D. (2005). *Review of research. School leadership study: Developing successful principals*. Palo Alto: Stanford Educational Leadership Institute.
- ² Marzano, R. J., Waters, T., & McNulty, B. (2005). *School leadership that works: From research to results*. Alexandria, VA: Association for Supervision and Curriculum Development.
- ³ Leithwood, K., Louis, K.S., Anderson, S., & Wahlstrom, K. (2004). *Review of research: How leadership influences student learning*. New York: The Wallace Foundation.
- ⁴ Allensworth, E.M., & Hart, H. (2018). *How do principals influence student achievement?* Chicago, IL: University of Chicago Consortium on School Research.
- ⁵ Reiss, K. (2007). *Leadership coaching for educators*. Thousand Oaks, CA: Corwin Press; Bloom, G., Castagna, C., Moir, E., & Warren, B. (2005). *Blended Coaching: Skills and strategies to support principal development*. Thousand Oaks: Corwin Press.
- ⁶ Fuller, E. J., & Young, M. D. (2009). *Tenure and retention of newly hired principals in Texas*. University Council for Educational Administration, Department of Educational Administration, University of Texas at Austin.
- ⁷ Gajda, R., & Militello, M. (2008). Recruiting and retaining school principal: What we can learn from practicing administrators. *AASA Journal of Scholarship and Practice*, 5(1), 14-20.
- ⁸ Béteille, T., Kalogrides, D., & Loeb, S. (2012). Stepping stones: Principal career paths and school outcomes. *Social Science Research*, 41, 904–919; Strickland-Cohen, M.K., McIntosh, K., & Horner, R. H. (2014) Effective practices in the face of principal turnover. *Teaching Exceptional Children*, 46(3), 19-25.
- ⁹ Finnigan, K. S., & Daly, A. J. (2017). The trust gap: Understanding the effects of leadership churn in school districts. *American Educator*, 24-29.
- ¹⁰ Louis, K.S., Leithwood, K., Wahlstrom, K.L., & Anderson, S.E. (2010). *Investigating the links to improved student learning: Final report of research findings*. Minneapolis, MN: University of Minnesota.
- ¹¹ Drago-Severson, E. (2012). *Helping educators grow: strategies and practices for leadership development*. Cambridge, MA: Harvard Education Press; Johnson, C. M. (2017). Principal leadership coaching: An examination of principal-coach interactions. *College of Education EdD Project Papers*. 10. Retrieved from <http://repository.uwyo.edu/edd/10>
- ¹² Evans, P. M., & Mohr, N. (1999). Professional development for principals: Seven core beliefs. *Phi Delta Kappa International*, 80(7), 530-532; McCay, E. (2001). The learning needs of principals. Association for supervision and curriculum development. *Educational Leadership*, 58(8), 75-77; Lovett, S., & Robertson, J. (2017). Coaching using a leadership self-assessment tool. *Leading and Managing*, 23(1), 42.
- ¹³ Kissane-Long, A. L. (2012). *Using mentor-coaching to refine instructional supervision skills of developing principals* (Doctoral dissertation). University of California: Los Angeles; Bossi, M. (2008). Does leadership coaching really work? *Leadership*, 38(1), 31-36.; Aguilar, E., Goldwasser, D., & Tank-Crestetto, K. (2011). Support principals, transform schools: Even a great leader needs a coach. *Educational Leadership*, 69(2), 70-73.
- ¹⁴ Aguilar, E., Goldwasser, D., & Tank-Crestetto, K. (2011). Support principals, transform schools: Even a great leader needs a coach. *Educational Leadership*, 69(2), 70-73.
- ¹⁵ Bloom, G., Castagna, C., Moir, E., & Warren, B. (2005). *Blended Coaching: Skills and strategies to support principal development*. Thousand Oaks: Corwin Press.
- ¹⁶ Lochmiller, C.R. (2014b). Leadership coaching in an induction program for novice principals: A 3-year study. *Journal of Research on Leadership Education*, 9(1), 59-84.
- ¹⁷ Reiss, K. (2007). *Leadership coaching for educators*. Thousand Oaks, CA: Corwin Press.
- ¹⁸ Lavigne, H., Shakman, K., Zweig, J., & Greller, S. (2016). *Principals' time, tasks, and professional development: An analysis of schools and staffing survey data*. Regional Educational Development Center, Inc.

- ¹⁹ Finn, D., & Donovan, A. (2013). *Evolving talent strategy to match the new workforce reality: Summary and compendium of findings*. PwC. Retrieved from <https://www.pwc.com/gx/en/hr-management-services/pdf/pwc-nextgen-study-2013.pdf>
- ²⁰ Hershatter, A., & Epstein, M. (2010). Millennials and the world of work: An organization and management perspective. *Journal of Business and Psychology*, 25, 211-223.
- ²¹ Kuhn, M. S. (2012). *Leading schools through a generational lens: Perceptions of principals' change leadership disaggregated by principal generation*. Electronic Theses and Dissertations. 351.
- ²² Riley, D. L. & Meredith, J. (2017). *State efforts to strengthen school leadership: Insights from CCSSO actions groups*. Policy Studies Associates. Retrieved from <http://www.wallacefoundation.org/knowledge-center/Documents/State-Efforts-Strengthen-School-Leadership-CCSSO-Action-Groups-PSA-2017.pdf>
- ²³ Riley, D. L. & Meredith, J. (2017). *State efforts to strengthen school leadership: Insights from CCSSO actions groups*. Policy Studies Associates. Retrieved from <http://www.wallacefoundation.org/knowledge-center/Documents/State-Efforts-Strengthen-School-Leadership-CCSSO-Action-Groups-PSA-2017.pdf>
- ²⁴ Peterson, K. (2002). The professional development of principals: Innovations and opportunities. *Educational Administration Quarterly*, 38(2), 213-232; Darling-Hammond, L., LaPointe, M., Meyerson, D., Orr, M. T., & Cohen, C. (2007). *Preparing school leaders for a changing world: Lessons from exemplary leadership development programs*. Stanford, CA: Stanford University, Stanford Educational Leadership Institute.
- ²⁵ Independent Budget Office of the City of New York. (2017). Public School Indicators. Retrieved from <http://ibo.nyc.ny.us/iboreports/principals-2017.html>
- ²⁶ Lochmiller, C.R. (2014b). Leadership coaching in an induction program for novice principals: A 3-year study. *Journal of Research on Leadership Education*, 9(1), 59-84; Drago-Severson, E. (2012). *Helping educators grow: strategies and practices for leadership development*. Cambridge, MA: Harvard Education Press; Johnson, C. M. (2017). Principal leadership coaching: An examination of principal-coach interactions. *College of Education EdD Project Papers*. 10. Retrieved from <http://repository.uwyo.edu/edd/10>; Kimsey-House, H., Kimsey-House, K., Sandahl, P., & Whitworth, L. (2011). *Co-active coaching: changing business, transforming lives* (3rd ed.). Boston, MA: Nicholas Brealey.
- ²⁷ Yasharian, F. (2016). *Improving on strength: Developing coaching competencies for the NYC Leadership Academy* (Doctoral dissertation). Harvard Graduate School of Education.
- ²⁸ National Policy Board for Educational Administration (2015). *Professional standards for educational leaders 2015*. Reston, VA: Author.
- ²⁹ NYC Leadership Academy (2016a). *Leadership performance planning worksheet*. New York: Author.
- ³⁰ NYC Leadership Academy (2015). *Taking charge of principal support: An in-depth look at NYCLA's approach to coaching principals*. New York: Author.
- ³¹ NYC Leadership Academy (2016b). *NYC Leadership Academy coaching competencies*. New York: Author.
- ³² Bloom, G., Castagna, C., Moir, E., & Warren, B. (2005). *Blended Coaching: Skills and strategies to support principal development*. Thousand Oaks: Corwin Press.
- ³⁴ Heifetz, R., & Linsky, M. (2017). *Leadership on the line: Staying alive through the dangers of change*. Boston, MA: Harvard Business Review Press.
- ³⁵ Argyris, C. (1972). *Increasing leadership effectiveness*. New York: John Wiley & Sons.
- ³⁶ Argyris, C., & Schön, D. (1978). *Organizational learning: A theory of action perspective*. Reading, MA: Addison Wesley.
- ³⁷ Houchens, G. W., & Keedy, J. L. (2009). Theories of practice: Understanding the practice of educational leadership. *Journal of Thought*, 44, 49-61.
- ³⁸ Cartwright, S. (2002). Double loop learning: A concept and process for leadership educators. *Journal of Leadership Education*, 1(1), 68-71; Houchens, G. W., Hurt, J. C., Stobaugh, R., & Keedy, J. L. (2012). Double loop learning: A coaching protocol for enhancing school principals' instructional leadership. *Qualitative Research in Education*, 1(2), 135-178.

- ³⁹ Boyd, D., Grossman, P., Ing, M., Lankford, H., Loeb, S., & Wyckoff, J. (2011). The influence of school administrators on teacher retention decisions. *American Educational Research Journal*, 48(2), 303-333.
- ⁴⁰ Louis, K.S., Leithwood, K., Wahlstrom, K.L., & Anderson, S.E. (2010). *Investigating the links to improved student learning: Final report of research findings*. Minneapolis, MN: University of Minnesota.
- ⁴¹ Gutierrez, N., & Grossman, J. (2017). *Power in numbers: Coaching principals to build teams that transform schools*. New York: NYC Leadership Academy.
- ⁴² Yasharian, F. (2016). *Improving on strength: Developing coaching competencies for the NYC Leadership Academy* (Doctoral dissertation). Harvard Graduate School of Education.
- ⁴³ Marzano, R. J., Waters, T., & McNulty, B. (2005). *School leadership that works: From research to results*. Alexandria, VA: Association for Supervision and Curriculum Development.
- ⁴⁴ School Leaders Network (2014). *Churn: The high cost of principal turnover*. Retrieved from https://connectleadsucceed.org/churn_the_high_cost_of_principal_turnover
- ⁴⁵ Louis, K.S., Leithwood, K., Wahlstrom, K.L., & Anderson, S.E. (2010). *Investigating the links to improved student learning: Final report of research findings*. Minneapolis, MN: University of Minnesota.
- ⁴⁶ Kimsey-House, H., Kimsey-House, K., Sandahl, P., & Whitworth, L. (2011). *Co-active coaching: changing business, transforming lives* (3rd ed.). Boston, MA: Nicholas Brealey.
- ⁴⁷ Aguilar, E., Goldwasser, D., & Tank-Crestetto, K. (2011). Support principals, transform schools: Even a great leader needs a coach. *Educational Leadership*, 69(2), 70-73; Bloom, G., Castagna, C., Moir, E., & Warren, B. (2005). *Blended Coaching: Skills and strategies to support principal development*. Thousand Oaks: Corwin Press.
- ⁴⁸ Drago-Severson, E., & Blum-DeStefano, J. (2016). *Tell me so I can hear you: A developmental approach to feedback for educators*. Cambridge, MA: Harvard Education Press.
- ⁴⁹ Wise, D., & Hammack, H. (2011). Leadership coaching: Coaching competencies and best practices. *Journal of School Leadership*, 21(3), 449-477.
- ⁵⁰ Argyris, C. (1972). *Increasing leadership effectiveness*. New York: John Wiley & Sons.
- ⁵¹ Argyris, C. (1991). *Teaching smart people how to learn*. Harvard Business Review, 69(3).
- ⁵² Houchens, G. W., Hurt, J. C., Stobaugh, R., & Keedy, J. L. (2012). *Double loop learning: A coaching protocol for enhancing school principals' instructional leadership*. *Qualitative Research in Education*, 1(2), 135-178.
- ⁵³ ESSA (2015). *Every Student Succeeds Act of 2015*, Pub. L. No. 114-95 § 114 Stat. 1177 (2015-2016).
- ⁵⁴ Riley, D. L. & Meredith, J. (2017). *State efforts to strengthen school leadership: Insights from CCSSO actions groups*. Policy Studies Associates. Retrieved from <http://www.wallacefoundation.org/knowledge-center/Documents/State-Efforts-Strengthen-School-Leadership-CCSSO-Action-Groups-PSA-2017.pdf>
- ⁵⁵ Riley, D. L. & Meredith, J. (2017). *State efforts to strengthen school leadership: Insights from CCSSO actions groups*. Policy Studies Associates. Retrieved from <http://www.wallacefoundation.org/knowledge-center/Documents/State-Efforts-Strengthen-School-Leadership-CCSSO-Action-Groups-PSA-2017.pdf>
- ⁵⁶ Wise, D. (2010). School leadership coaching: What does it look like? *International Journal of Educational Leadership Preparation*, 5. Retrieved from <http://www.nceapublications.org/attachments/article/61/m33643.pdf>; Wise, D., & Hammack, H. (2011). Leadership coaching: Coaching competencies and best practices. *Journal of School Leadership*, 21(3), 449-477.
- ⁵⁷ Louis, K.S., Leithwood, K., Wahlstrom, K.L., & Anderson, S.E. (2010). *Investigating the links to improved student learning: Final report of research findings*. Minneapolis, MN: University of Minnesota.
- ⁵⁸ The New Teacher Project (2006). *Improved principal hiring: The New Teacher Project's findings and recommendations for urban schools*. Retrieved from <https://tntp.org/assets/documents/TNTP-ImprovedPrincipalHiring-Final.pdf>

⁵⁹ Finn, D., & Donovan, A. (2013). *Evolving talent strategy to match the new workforce reality: Summary and compendium of findings*. PwC. Retrieved from <https://www.pwc.com/gx/en/hr-management-services/pdf/pwc-nextgen-study-2013.pdf>

⁶⁰ Hershatter, A., & Epstein, M. (2010). Millennials and the world of work: An organization and management perspective. *Journal of Business and Psychology*, 25, 211-223.

⁶¹ Kuhn, M. S. (2012). *Leading schools through a generational lens: Perceptions of principals' change leadership disaggregated by principal generation*. Electronic Theses and Dissertations. 351.

⁶² Rainey, L. R. & Honig, M. I. (2015) From procedures to partnerships: Redesigning principal supervision to help principals lead for high-quality teaching and learning. Retrieved from University of Washington Center for Educational Leadership website: <http://k-12leadership.org/publications/From-Procedures-to-Partnership-UWCEL-DL2.pdf>

⁶³ Bloom, G., Castagna, C., Moir, E., & Warren, B. (2005). *Blended Coaching: Skills and strategies to support principal development*. Thousand Oaks: Corwin Press; Honig, M. I. (2012). District central office leadership as teaching: How central office administrators support principals' development as instructional leaders. *Educational Administration Quarterly*, 48(4), 733-774.

⁶⁴ Lochmiller, C.R. (2014a). What would it cost to coach every pew principal? An estimate using statewide personnel data. *Education Policy Analysis Archives*, 22(55). Retrieved from <http://dx.doi.org/10.14507/epaa.v22n55.2014>

⁶⁵ School Leaders Network (2014). *Churn: The high cost of principal turnover*. Retrieved from https://connectleadsucceed.org/churn_the_high_cost_of_principal_turnover

⁶⁶ Liebetrau, A. (1983). *Measures of association*. Beverly Hills, CA: SAGE Publications.





45-18 COURT SQUARE LONG ISLAND CITY NEW YORK 11101