Spring/Summer 2026

Educational Leadership Insights

A publication by:
PA EDGE

ELI
Educational Leadership Insights

TABLE OF CONTENTS

EDGEucator

The Learning LEDGER

The EDGE Files

On the EDGE

PEL Journal

LETTER FROM THE EDITORS

We were thrilled with the momentum from our inaugural edition of ELI, and we are energized by the enthusiasm of the educational community to contribute through authorship, advertising, and sharing ideas within this publication.

In this edition, readers are welcomed by PA EDGE President, Dr. Dennis Williams, and Executive Director, Dr. Lori Stollar, who share their excitement about the transition of PA EDGE from PASCD and how PA EDGE is leading the way as an educational organization.

This issue presents a variety of articles across our standing categories: *EDGEucator, The Learning LEDGER, The EDGE Files,* and *On The EDGE*. The publication concludes with a special feature section from the *Pennsylvania Educational Leadership Journal* (PEL).

There is something for everyone, from elementary lunchroom ideas to postsecondary certification pathways. This edition highlights topics that matter most to Pennsylvania educators.

We invite you to enjoy the contributions of your colleagues and encourage you to share your own ideas. Articles are accepted year-round and published twice annually.

Happy New School Year, fellow educators!

MARY WOLF, ED.D.
CO-EDITOR
PENNWEST UNIVERSITY

REBECCA GIBBONEY
CO-EDITOR
LINCOLN INTERMEDIATE UNIT 12

Accepting Submissions!

The deadline for the next edition is August 31, 2026. To submit an article, complete the submission form at the following website: https://paedge.org/paedge-journal. If you have any questions, please contact eli@paedge.org.

Multiple Category Options:

The **EDGE** Files
Curated collection of articles on current educational issues and trends, book reviews, and best practices.

On the **EDGE**
Articles on federal or state policy updates and implications

The Learning LEDGER
Articles for pre-service teachers: perspectives written for pre-service teachers by professors or students

EDGEucator
Articles from PA EDGE Emerging Leaders

PEL Journal
Research studies using qualitative, quantitative or mixed methods

bit.ly/48RFHxp

To those on the EDGE of what's next...

As I prepare to step away from the presidency this June, I find myself reflecting deeply. Leading an organization with a lineage stretching back over eight decades is a profound responsibility. We stood on the shoulders of giants, supported by a national association and a history that has shaped Pennsylvania's educational landscape since the mid-20th century. In 2024, when national support from ASCD shifted unexpectedly, we had some important decisions to make. I think you would all agree that heritage can sometimes act as a tether. The greatest challenge our association faced as I took over the presidency was not managing our history, but rather shifting our paradigm. We had to ask ourselves: *How do we honor eighty years of service while evolving to meet the urgent, shifting needs of today's educators?*

The transition from PASCD to PA EDGE was a journey defined by both grit and grace. It was a path riddled with obstacles: structural barriers, financial barriers, discomfort in the unknown, and the friction that always seems to accompany second-order change. But luckily, I didn't have to walk that path alone. I have been profoundly blessed to work alongside an executive board and leaders across Pennsylvania who chose to see past the obstacles and buy into the vision of what we were attempting to build. It has been a unique privilege to labor alongside you. Passionate and dedicated educators understand that our profession moves forward only when we move together.

Over the last two years, our work has been rooted in three key pillars: Connection, Innovation, and Service. It has been a privilege to serve as the president of this organization; however, for me, the privilege was found in the people, not the title. I have been inspired daily by educators who believe that connection is our greatest asset. In a profession that can often feel isolating, PA EDGE has become more than a hub for professional development; we have built a community where ideas flourish, people feel a sense of belonging, and dialogue transforms outcomes. I leave this role excited about the momentum that we have generated and the collective energy of this network. PASCD built the foundation that allowed us to stand. PA EDGE will build the future that allows us to lead.

Thank you for your trust, your collaboration, and your commitment to this work. It has been an honor to serve you. As you turn the pages of this journal and engage with the ideas within, I hope you realize that you aren't just part of a mailing list. This is your community! This is your network!

Welcome to PA EDGE. Welcome to what's next.

With deepest gratitude,
Dr. Dennis M. Williams, Jr.,
President PA EDGE

PA EDGE BOARD MEMBERS

L to R: Row 1: Barb Davis, Lori Stollar, Dennis Williams, Rob Freil, Michael Roth **Row 2:** Tara Desiderio, Mary Wolf, Brian Griffith, Stephanie Ferree, Susan Gentile, Lydia Dobrowolsky-Casale, Cathleen Cubelic

A LETTER FROM THE EXECUTIVE DIRECTOR

There has never been a more exciting time to be part of PA EDGE.

At our annual conference this spring, we celebrated over eight decades of impact and looked ahead to an exciting new chapter. The energy in that room was unmistakable. Our name has changed, but our mission remains sharper than ever: Elevating, Developing, and Growing Educators across Pennsylvania to promote excellence in curriculum, instruction, and supervision. That mission is amplified by the power of our partnerships.

PA EDGE is a proud founding member of T3LN — the Teaching, Learning, and Leading Legacy Network. When ASCD ended its affiliate program, twelve like-minded state organizations refused to lose the momentum of working together. T3LN was born from that resolve. In March 2026, we hosted our first virtual conference, Solutions in Action, with over 25 breakout sessions and eight keynote speakers from around the country. Timely. Relevant. Energizing. As a PA EDGE member, you are automatically part of T3LN and benefit from this expanding national community.

We are also an official partner of ISTE+ASCD, two powerhouse organizations united by a shared vision: empowering educators through impactful pedagogy and meaningful technology. Together, we are promoting the Transformational Learning Principles, eight evidence-based practices designed to spark imagination and foster joyful, student-centered learning. Recently, we hosted a Pennsylvania cohort of the Instructional Leader Certification, with seven educators across the state deepening their mastery of instructional excellence to enhance student outcomes through transformative change.

Closer to home, our partnership with the PA Principals Association continues to flourish. Together, we organize the Pennsylvania Summit for Educational Leaders, a premier annual event that offers high-quality professional development for school and district leaders. We also collaborate each semester on a book study, helping leaders bridge research with practical application.

But our most vital partnership? ***Ours is with you.***

Our members are the reason PA EDGE exists and thrives. Every connection made, every idea exchanged, and every educator supported starts with your dedication to this community. Thank you for your partnership. The next chapter of PA EDGE is bright, and we are excited to write it together.

In partnership,
Dr. Lori J. Stollar
Executive Director PA EDGE

EDGEucator

Articles from PA EDGE Emerging Leaders

Happy New Year!

Sarah Berman

As we embark on another school year this fall, many of us enter the classroom or office with mixed emotions. Some are excited to start fresh with a new group of eager learners; some of us are mourning the end of the freedom that summer brings, and some of us are anxiously anticipating what new initiatives or demands will be waiting for us when we enter our first professional development sessions. But all of us, whether we are excited, anxious, or otherwise, have one thing in common: we get a fresh start. And not many people in other professions can say the same.

Many of you may understand the challenge that I face when speaking to friends or family members who are not in education. For example, when my husband talks about his work as a hospital administrator, sometimes I find myself unable to get past the fact that his work just continues on and on without predictability or a cycle, and how that must feel day to day, year to year. No matter how we feel coming into this school year, we can, with a high degree of certainty, know what September brings: professional development, back to school nights, fresh faces, haircuts, backpacks and anticipation of what the year will bring. The unique, cyclical nature of our profession brings not only a high degree of relative predictability, but also brings with it something most people don't get in their jobs every year:

A chance to start over.

Each year, we get to choose the kind of teacher we want to be, the kind of administrator we want to be, where our focus and priorities will lie, and our goals for the year. We get to leave the past behind, and reinvent the school year if we choose to do so.

In some ways, education is the most predictable profession. We know what time we are teaching math, what time the bell rings for lunch, and dates for state testing three years in advance. And in other ways, it is as unpredictable as emergency medicine. That's what makes it exciting. While we know when our students will arrive and dismiss, we don't know which student will ask a question that will challenge our thinking and throw off our lesson plan, and we don't know what time the fire alarm will go off or a student in the back will throw up all over a standardized test or which student will lose a parent and need all the love and support we have to offer. We have to be ready and prepared to be all the things to any student at any given time.

As an administrator, it is no different. August (otherwise known in education as 'the longest Sunday night') brings the anticipation of a new year, the beginning of a new cycle. It offers the opportunity to re-set priorities, re-establish routines, evaluate systems and processes and determine how we can make things run more smoothly and cohesively for the upcoming year. We get to be creative and re-think and re-invent. Summer offers the chance to step back, without the daily firefighting, and reflect on how we can keep student learning at the forefront and get the best out of our teachers and students. It offers the opportunity to set the course of that fresh start.

Regardless of whether you are a teacher or an administrator, the sentiments of a new school year can run the gamut of emotions. However, what I hope we can all take a moment to reflect on as the start of another cycle begins, is the tremendous power that we hold as educators. Because regardless of what new initiatives our district is "rolling out," what buzz words fill our PD sessions, and what newly designed spaces we come back to in our buildings, at the end of the day, we are in the business of teaching students. And each individual student that enters our building and our classroom has a story, told or untold. Each individual student has a history, a learning profile, interests, strengths, weaknesses, areas of vulnerability and struggle, and most importantly, whether they show it or not, a desire to belong and connect. And I would argue, the most daunting and awesome of all of the responsibilities of our profession, is to create the environment in our

spaces that is conducive to learning. We set the tone. We set the expectations. We determine the mood and feeling of our building or classroom. Our face, our demeanor, and our attitude are all contagious. Our words hold tremendous power. The impact we will make on each individual we encounter is profound, whether we know it or not. And the amazing thing– the amazing power we hold, is that the impact can be positive or negative, depending on our attitude and our choices.

I have been in this profession 23 years, and I still get the "first-day jitters." The day I stop getting excited for a new school year is the day I know my time in education has run its course. Because all students and teachers deserve that fresh start, that new beginning, and all the nervous excitement that comes with September. So, from my office to yours, Happy New Year! Make it a good one; you have the power to shape the year ahead.

Sarah Berman is in her fifth year as a high school assistant principal. Prior to her current role, she taught for eighteen years in the elementary classroom. She earned her B.S. in Early Childhood and Elementary Education from New York University, and holds two masters degrees from Temple University in Urban Education and School Leadership.

The Learning LEDGER

Articles for pre-service teachers: perspectives written for pre-service teachers by professors and students

A Pennsylvania's School District's Journey Through the Cultural Proficiency Continuum:

How Systemic Change Helped to Increase the Recruitment and Retention of Teachers of Color.

Susan S. Silver, Ed.D.

Systemic change does not happen overnight. In order to transform an educational entity from cultural incapacity to cultural competence, district leadership must take a strategic and intentional approach (Lindsey et al., 2019). The District needs to adopt new ways of examining teaching and learning in order for movement to occur. Through fostering uncomfortable conversations and focused dialogue around diversity, equity, inclusion, and belonging, staff will begin to see the entire system through a lens of equity.

In 2020, with the COVID pandemic and the murder of George Floyd, the urgency to advance the understanding of cultural competence, provide equitable access and academic achievement for all students, particularly the underserved students, was apparent. Collectively, our administrative team laid plans for embracing these challenges and developed plans to address the need for this transformation.

Cultural competence in school environments encompasses a systematic look at vall areas such as financial, facilities, policies and procedures, curriculum and instruction, parent and community engagement, student services, professional development as well as recruitment, hiring practices and retention. All systems within the individual schools and the district as a whole, must be moving on the continuum.

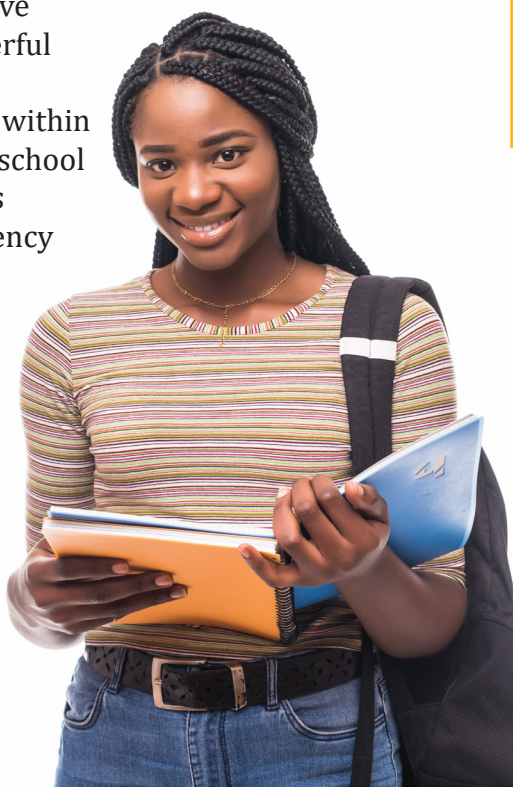
In order to address these issues, the district utilized a variety of data, including perception, student achievement, demographic, and process data, to identify areas of strength and areas needing improvement. The District was able to hone in on the District improvement measures to address these challenges. Over the course of the past five years, movement has occurred and continues to embrace this systematic change.

Strides were taken to provide rich professional development for administrators and staff while simultaneously forming stakeholder committees to address seven areas of need. These specific committees worked throughout the year to identify action plans to address areas of improvement. As culturally responsive leaders, we needed to understand what currently existed and understand what needs to exist. A robust improvement plan was developed and action steps were implemented. For example, the Recruitment, Hiring, and Retention committee with the help of our Human Resource Director worked to generate a large applicant pool through early and effective recruitment: Administrators targeted specific college/universities with strong education programs and a larger pool of potential teachers of color such as HBCUs including Lincoln University and Cheney University. In addition, the Disproportionality in Special Education and Discipline, Gifted Education subcommittee established a program to provide interventions and supports to students in grades 5-8 to increase the number of underserved students in our accelerated math programs.

Ostensive roadblocks were placed by some community members to prevent this systemic change. As the political climate intensified, leadership received critical and hostile pushback. In addition, fixed mindsets and cultural destructiveness proved to be barriers toward growth.

We focused primarily on the initiatives established to create a system of belonging, to support our need for improved pedagogy, and to provide "mirrors and windows" for our diverse population of students. With the shift in District culture, the improved sense of belonging for staff and students and the increase of educators of color, the leadership believes that efforts were imperative. These results suggest that the codified actions must be deliberate and ongoing as a pathway towards cultural proficiency and a commitment to embracing systematic change diligently.

This narrative outlines a powerful journey of transformation within a Pennsylvania school district towards cultural proficiency and equity, particularly in terms of the recruitment and retention of educators of color.



Let's break down the key points and strategies employed:

1. Strategic and Intentional Approach
Recognized the need for systemic change and took a deliberate approach that involved fostering uncomfortable conversations.

2. Urgency for Change
The events of 2020 heightened the urgency for advancing cultural competence and equity.

3.Comprehensive Examination
Cultural competence was not viewed in isolation but as a holistic approach encompassing various aspects of the education system (Lindsey et al., 2019).

4.Data-Driven Decision Making
The district utilized a variety of data to identify areas of strength and areas needing improvement.

5. Initiatives for System of Belonging
Initiatives aimed at creating a sense of belonging for all students.

6. Improved Recruitment and Retention
The initiatives put in place were successful in attracting and retaining a more diverse teaching staff (Chism, 2022; Ingersoll, et al., 2020, 2022).

7.Continuous Improvement
The journey is ongoing, with a commitment to embracing systematic change persistently.

Overall, this narrative highlights the importance of systemic change, data-driven decision-making, and intentional efforts towards cultural proficiency in fostering a more equitable and inclusive educational environment.

Dr. Susan S. Silver is the Assistant Superintendent at the Upper Merion Area School District. Dr. Silver is also an Adjunct Professor at Arcadia University in Glenside, PA. She prepares graduate and doctoral students for roles in curriculum and instruction, pupil services, and educational leadership.

Bernhardt, V. L. (1998). *Invited monograph no. 4.* California Association for Supervision and Curriculum Development.
Chism, D. (2022, October). Building a diverse teacher pipeline starts with students. *Educational Leadership, 80*(2).
Cobb, F., & Krownapple, J. (2019). *Belonging through a culture of dignity: The keys to successful equity implementation.* Mimi and Todd Press.
Dixon, R. D., Griffin, A. R., & Teoh, M. B. (2019). *If you listen, we will stay: Why teachers of color leave and how to disrupt teacher turnover.* The Education Trust & Teach Plus.
Ingersoll, R., May, H., & Collins, G. (2022, August 18). How diverse is the teaching force? *Educational Leadership, 80*(2).
Ingersoll, R., May, H., Collins, G., & Fletcher, T. (2020). *Trends in the recruitment, employment, and retention of teachers from under-represented racial-ethnic groups, 1987–2016.* American Educational Research Association.
Lindsey, R. B., Nuri-Robins, K., Terrell, R. D., & Lindsey, D. B. (2019). *Cultural proficiency: A manual for school leaders* (4th ed.). Corwin.

Understanding Alternative Pathways to Teacher Certification in Pennsylvania

Jennifer L. Thorp, Ed.D. • Daniel Roesch, Ed.D.

Currently, the Pennsylvania Department of Education (PDE) permits three certification pathways for prospective teacher candidates to earn their Level I initial teacher certification through approved program providers. The most common pathway is a traditional undergraduate program at a college or university. Additionally, two alternative pathways are available through a post-baccalaureate program or an intern program. Both alternative programs may be at graduate level and could lead to a master's degree (Pennsylvania Department of Education, 2025b).

The purpose of this article is to provide prospective teachers who have already earned a bachelor's degree from an accredited college or university with a clearer explanation of the alternative pathways to obtain a Level I initial teacher certification in the Commonwealth of Pennsylvania.

Post-Baccalaureate Certification Program Pathway

Prospective teachers with a bachelor's degree can pursue their Level I initial teacher certification through the post-baccalaureate (post-bac) pathway. First, they need to determine the content area in which they want their Level I initial teacher certification. The content area can be found from the list of Instructional Certification Programs provided by the Pennsylvania Department of Education (PDE) (Pennsylvania Department of Education, 2025a). Next, students will contact a university who offers a PDE approved teacher certification program. It is helpful to choose a university that offers internship certification programs. PDE offers a list of universities with instructional certification programs. Students can select their chosen content area and search online for the university Program Coordinator's contact information. The Program Coordinator can confirm if the post-bac Level I initial teacher certification can be earned at the institution and guide students on the process. At a minimum, this pathway can be finished in 6-18 months and consists of completing required pedagogy courses, passing the Praxis 2 exam, and student teaching.

Post-Baccalaureate Certification Program Pathway Example at Commonwealth University of Pennsylvania

As a possible pathway, if a student graduates with a bachelor's degree in a field other than education from an accredited university and wants to be a teacher, they need to earn a Level I initial teacher certification. The student contacts the Program Coordinator at Commonwealth University of Pennsylvania to review records and transcripts to identify pedagogy courses to meet competency requirements. The student gets enrolled in the post-bac secondary certification program and completes the required pedagogy courses, passes Praxis 2 exams, and completes student teaching. The student begins the post-bac program in May by completing 12 credits over the summer, 12 credits in the fall, and 6 credits of student teaching in the spring. The student passes the Praxis 2 exam and graduates with a master's degree. This pathway took 12 months.

Intern Certification Program Pathway

Prospective teacher candidates who complete any bachelor's degree can choose the intern pathway. First, students need to determine the content area they want their Level I initial teacher certification in. The content area can be found from the list of Instructional Certification Programs provided by the Pennsylvania Department of Education (PDE) (Pennsylvania

(Pennsylvania Department of Education, 2025a). Next, they will contact a university who offers a PDE approved intern certification program. PDE offers a list of universities with Teacher Intern Certification Programs and students can search online for the university Program Coordinator's contact information. The Program Coordinator can confirm if the intern certification pathway can be completed and guide students on the process. This pathway can be completed in 12-36 months and consists of applying for the intern certification in PDE's Teacher Information Management System (TIMS), completing a full-time professional teaching position for at least one year, passing the Praxis 2 exam, and being observed by a University Supervisor.

Internship Certification Program Pathway Example at Commonwealth University of Pennsylvania

As in our prior example, the student must obtain his or her initial teacher certification by contacting the Program Coordinator at Commonwealth University of Pennsylvania to review records and transcripts to identify pedagogy courses to meet competency requirements. The student passes the Praxis 2 exam and applies for the intern certification in TIMS. Once the certification is approved, they apply for a teaching position in high school mathematics under the approved intern certification. They get hired at their local school district as a high school math teacher and complete two internships; one in the fall and spring semesters and are observed by their University Supervisor. The student completes all competency coursework during the summer and winter semesters and graduates with a master's degree. This pathway took 12 months.

Conclusion

The Pennsylvania Department of Education provides a list of approved teacher certification programs. It is important to search for the Program Coordinators to ensure a Level I initial teacher certification in their chosen content area is viable. Program Coordinators explain the pathway processes and prospective teachers can choose the pathway that is best for them.

**Editor's Note: What was previously referred to as the Intern Program has now been changed to the Experience-Based Program according to Act 47 of 2025.

Dr. Jennifer L. Thorp is an Associate Professor in the Department of Health and Physical Education at Commonwealth University of Pennsylvania. Dr. Thorp holds Pennsylvania Instructional II and Supervisory certifications and is a Certified Health Education Specialist (CHES). She earned her B.S. in Health and Physical Education from Lock Haven University, M.S. in Exercise Science and Health Promotion from California University, and D.Ed. in Curriculum and Instruction from Indiana University of Pennsylvania.

Dr. Daniel Roesch is an Associate Professor and the program coordinator for the secondary graduate level postbaccalaureate and teacher intern certification programs at Commonwealth University. Daniel earned his bachelors degree in Chemistry Education from Mansfield University, Masters in Curriculum and Instruction from Penn State University and Ed.D. in Educational Administration from Temple.

Pennsylvania Department of Education. (2025a). *Approved certification programs.* Retrieved September 29, 2025, from https://www.pa.gov/agencies/education/programs-and-services/educators/certification/new-educators/approved-certification-programs#accordion-8fe7384bee-item-b8434428d6

Pennsylvania Department of Education. (2025b). *New educators.* Retrieved September 29, 2025, from https://www.pa.gov/agencies/education/programs-and-services/educators/certification/new-educators

The EDGE Files

Curated collection of articles on current educational issues and trends, book reviews, and best practices

Transforming Elementary Lunchtimes From Chaos to Calm

Matthew Moyer

Creating an educational environment that balances effective discipline, positive culture, and unique educational experiences is a complex but essential goal. In education, administrators are challenged with equipping their schools with data-driven techniques that foster a supportive and engaging atmosphere. However, addressing daily challenges, especially managing negative behaviors, often diverts our focus. In our district, one major issue was disruptive behavior in elementary school cafeterias. Pushing, shoving, name-calling, food fights, crying, and elopement were common occurrences in these communal spaces.

Identifying the Problem

When we analyzed the data, it became clear that 90% of our negative daily behaviors were occurring in the cafeteria. The chaotic environment of the cafeteria seemed to exacerbate issues, creating a breeding ground for misbehavior. Students would often return to class agitated and unprepared to learn, affecting the overall classroom environment and academic performance.

Exploring Solutions

To tackle this issue, we explored a not-so-new idea but new to us: bringing lunchtime back to the classrooms. This approach, implemented as a pilot in one school, aimed to reduce cafeteria-related disruptions without creating a restrictive, prison-like atmosphere in our underfunded urban district. Our experiment, involving reassigned duties and schedule modifications, yielded promising data showing significant behavioral improvements.

Benefits of Classroom Lunchtimes

Reduced Noise and Stress

Cafeterias are noisy and crowded, overwhelming students and detracting from a relaxing lunch break. Eating in the classroom provides a quieter, calmer environment, particularly beneficial for students sensitive to noise and crowds. This peaceful setting helps students recharge and return to class ready to learn.

The noise level in a traditional cafeteria can reach such heights that it becomes almost impossible for students to unwind. This constant barrage of sound overstimulates students, leading to heightened stress levels and, consequently, an increase in disruptive behavior. By contrast, the classroom environment is naturally quieter and more controlled. When students eat in their classrooms, they experience a more serene atmosphere, which significantly reduces stress and promotes a more positive dining experience.

Increased Supervision and Safety

Our cafeteria proctors can more easily monitor and manage a smaller group of students within the classroom. This enhanced supervision helps maintain discipline and ensures issues like bullying or inappropriate behaviors are quickly addressed. With fewer students to supervise, proctors can provide more attentive and responsive supervision.

In a large cafeteria setting, even with multiple monitors, keeping track of every student and addressing individual needs can be challenging. In contrast, the classroom setting allows for more personalized supervision. Our lunch proctors can keep a closer eye on the students, quickly identifying and addressing any issues before they escalate. This close monitoring helps create a safer and more supportive environment for all students.

More Time for Eating

Transitioning to and from the cafeteria can consume a significant portion of the lunch break. Eating in the classroom saves this transit time, giving students and teachers more time to eat and relax. This additional time can lead to better eating habits and reduced food waste.

The logistics of moving hundreds of students to and from the cafeteria can be time-consuming. This transition often eats into the actual time students have to enjoy their lunch. By eliminating this transition, and having our proctors come to each room, students have more time to focus on their meals. They can eat at their own pace without feeling rushed, which contributes to better digestion and overall health.

Strengthening Classroom Community

Sharing a meal in the classroom fosters a sense of community and camaraderie among students. It provides an opportunity for students to bond with each other in an informal setting, potentially improving relationships and classroom dynamics. This strengthened community can enhance overall classroom morale and cooperation.

Lunchtime can be a valuable opportunity for socialization. In the classroom setting, students have the chance to engage in meaningful conversations with their peers. This bonding time helps build a stronger sense of community within the classroom. As students feel more connected to each other, the overall classroom environment becomes more cohesive and supportive, leading to improved cooperation and mutual respect.

Better Allergen Control

Managing allergies is easier in a classroom setting where the staff knows the specific needs and medical requirements of each student. This awareness reduces the risk of allergen exposure, providing a safer eating environment for all students.

In a large cafeteria, it can be challenging to manage and monitor food allergies effectively. However, in the classroom setting, our staff are more aware of each student's specific dietary needs and can ensure that these needs are met. This close attention helps create a safer eating environment, reducing the risk of allergic reactions and ensuring that all students can enjoy their meals without fear.

Reduced Food Waste

In a classroom setting, our proctors can encourage students to finish their meals or manage portion sizes based on individual needs, potentially reducing food waste. This mindful approach to eating supports both health and the reduction of food that ultimately is thrown in the trash.

By being more aware of what each student is eating, staff can help reduce food waste. They can encourage students to take only what they can eat and to finish their meals. This mindful approach allows our students to consume a meal that will help fuel their day.

Improved Hygiene and Cleanliness

Maintaining cleanliness is easier in a classroom where the proctor can enforce rules more effectively. This control contributes to a cleaner eating environment, promoting good hygiene practices among students.

Our staff create a clear, easy-to-follow cleaning routine by providing each student with basic cleaning supplies such as disinfectant wipes and paper towels. Before and after lunch, students can be guided through a quick clean-up procedure: wiping down their desks, ensuring all food waste is properly disposed of, and organizing their personal items. Assigning rotating roles, such as "Clean-Up Captain," can also foster a sense of responsibility and teamwork. By integrating these habits into the daily routine, students learn the importance of cleanliness and personal responsibility while maintaining a tidy and healthy classroom environment.

Addressing Potential Drawbacks

While classroom lunches offer clear benefits, potential drawbacks include the need for additional classroom cleaning, managing food smells or spills, and the lack of a change of scenery that a cafeteria provides. Schools must weigh these advantages against the potential disadvantages based on their specific circumstances, resources, and student needs.

Additional Cleaning Responsibilities

One of the main concerns with classroom lunches is the increased need for cleaning. Classrooms must be thoroughly cleaned after meals to prevent pest issues and maintain a healthy environment. This added responsibility can be managed by creating a structured cleaning routine involving both students and staff.

Managing Food Smells and Spills

Food smells and spills can also be a challenge in a classroom setting. Implementing rules for proper food disposal and immediate clean-up of spills can mitigate these issues. Working collaboratively with our custodian has allowed large trash cans to be utilized, and waste removed after lunch is completed.

Lack of Change of Scenery

The cafeteria provides a change of scenery that can be refreshing for students. To address this, schools can incorporate occasional special lunch days in different settings, such as picnics outside or themed classroom lunches, to keep the experience varied and enjoyable.

Conclusion

Our school's experience with classroom lunchtimes highlights the potential for innovative solutions to create a positive, inclusive, and effective educational environment. By focusing on fostering a supportive culture, we can address daily challenges while promoting the well-being and success of our students. Through collaborative efforts and continuous improvement, we can transform our schools into places where every student thrives.

Implementing classroom lunchtimes has shown significant improvements in student behavior, reduced stress levels, and fostered a stronger sense of community. While there are challenges to address, the benefits of this approach are clear. By being adaptable and creative, we found an effective solution that meets the needs of our students, and create a more positive and supportive educational environment.

Matthew Moyer is a Nationally Distinguished Principal and the 2020 Pennsylvania Principal of the Year. Currently serving as the principal of Rupert Elementary School in the Pottstown School District, Mr. Moyer is also a published author, national speaker, adjunct professor, and educational consultant.

We are proud to announce that the Inaugural Edition of Educational Leadership Insights (ELI) received an Honorable Mention from the Pennsylvania School Public Relations Association (PenSPRA) in the Magazine category.

This award reflects our mission to elevate the voices of Pennsylvania's educational leaders and provide a premier resource for professional growth. We are deeply grateful to our contributors and readers for making this first edition a success.

We thank our ELI publishing team at BlaST IU17. Special appreciation goes to our layout designer, Brooke Wise, for her outstanding design contributions. As educational organization partners, we are proud to celebrate this award together.

PA EDGE
Elevating, Developing, & Growing Educators
Through Curriculum, Instruction, & Supervision

Join the Conversation

Beyond these pages, PA EDGE serves as a premier destination for educational innovation, curriculum advancement, and professional collaboration. We invite you to explore our full range of resources, digital content, and upcoming opportunities to connect with leaders across the state.

PAEDGE.org

Enhance a School's Mission and Vision Statements: Promote Community Partnerships

John V. D'Ascenzo, DM • Khaled Falah, Ph.D.

School district and individual school personnel focus on promoting excellence through policies, curricula, and extracurricular activities. The mission and vision statements reflect this commitment to excellence and provide credibility for stakeholders. Most school personnel focus on learning activities within their schools but overlook external factors. These external factors could easily complement internal factors toward achieving excellence. Community partnerships are an example of an external factor. An exploration of the various types of community partnerships can clarify paths to enhance mission and vision statements.

Community Partnership Targeting Series

Community partnerships will involve organizations within a reasonable distance of a school. These organizations include commercial, social, and service groups. Targeting organizations for inclusion in partnerships depends on the activities planned. A first step would be to form a committee comprising administrators, teachers, parents, and a student representative (Haight et al, 2024). An organization's nature determines the design of academic activities that promote excellence.

Once community organizations are selected for partnerships, subsequent decisions will focus on inclusion activities. An effective strategy would involve circular inclusion. School stakeholders would travel to the targeted organizations, and organization stakeholders would travel to the schools. Security is a vital aspect of this process; therefore, participants must agree on background checks. A good-faith gesture by a school would be to absorb costs and streamline background-check procedures.

Community Partnership Activity Strategies

Activities based on curricular content could complement in-class academic projects. Nursing and retirement facilities present opportunities for pen pal writing projects. Creative writing skills are important across content areas besides English/grammar. Letter writing between students and senior citizens creates opportunities for knowledge sharing (Anthes, 2025). Editing and supervision require teachers' efforts; however, the benefits outweigh the additional responsibilities.

Commercial organizations such as banks, shopping centers, police departments, fire departments, and EMT services provide students with business and service expertise. An understanding of how these organizations function could give students a perspective that inspires future service within these groups. An adoption strategy not only builds long-term relationships but also provides financial support for school expenses (Schutz et al., 2021). The circular inclusion strategy also applies to these groups.

The creative and performing arts departments are a resource administrators can use regardless of the community groups selected. Musical and dance groups are effective tools for reaching community groups (Miller & Khatib, 2023). Performances provide opportunities to showcase a school's effectiveness in promoting students' participation and development. Reid and Sun (2024) explored opportunities for students to showcase their talents while enhancing the community's perception of the school's effectiveness. The circular inclusion is quite effective when community stakeholders visit the school's performances.

Familial Strategies with Community Partnerships

Administrators and teachers can use community partnerships to encourage parents, grandparents, and guardians to participate in school activities. Ethnic

organizations provide cultural diversity that enhances cuisine, fashion, music, and dance align with most content areas (Morris & Cheng, 2025). Activities that connect ethnic community groups offer family members opportunities to bond with students in a positive way. Additional positive outcomes include bonding with school staff in enhancing students' self-efficacy.

Including family volunteers could enhance the non-instructional aspects of a school's activities. Recess and lunch periods provide recreational opportunities for students to develop social skills. Familial inclusion complements school staff efforts by promoting appropriate interactions among students (London & Claassen, 2025). The social skills acquired here can be transferred to external environments. This promotes a positive perception of the school's culture by community stakeholders.

Staff Strategies to Promote Successful Outreach

An effective strategy to promote staff inclusion is professional development that should go beyond the stated goals. A planning committee should include administrators, staff, and a parent, all in which should provide input that is encouraged and recorded for a final policy document. The professional development should highlight the skills required to assist students in interacting with community participants (Ruhr & Danforth, 2024). Timeframes would focus on activities during and after school.

The professional development should also include justification for establishing community partnerships with an emphasis on academic achievement. Teachers skilled in technology and participation in volunteering should provide expertise to staff to ensure that interactions between students and community partners are robust (Zhang, Kang, & Gu, 2024). It is essential that school staff are willing to act beyond classroom duties if external partnership activities are to succeed.

A final inclusion strategy is to reach out to local colleges and universities to leverage their vast resources. Including higher education personnel could provide a solid foundation and access to grant funding. Reinhardt and Rizwan (2025) examined the benefits of using higher education resources to strengthen community partnerships. Establishing relationships with higher education institutions complements the approaches of neighboring groups. The overall goals of establishing community partnerships are to ensure that mission and vision statements are meaningful and to promote student success.

Conclusion

Administrators and staff have multiple opportunities to ensure that a school's mission and vision statements align with students' achievements. Academic achievement is a desired goal; however, social achievement can complement academic success. The overall benefits of pursuing community partnerships include enhanced present and future opportunities. Students can observe how various organizations operate, gaining a new perspective on balancing academic knowledge with real-world activities.

Dr. John D'Ascenzo is a 35-year veteran teacher and program director in the School District of Philadelphia. He serves as an Adjunct Professor of Education and Business.

Dr. Khaled Falah has been a CIO in numerous organizations and is an Associate Professor of Technology and Business.

Anthes, J. R. (2025). Closing the youth activity gap through school district-communpartnerships. *Journal of Youth Development, 20*(3), 194–206. https://open.clemson.edu/jyd/vol20/iss3/11

Haight, J., Daniels, J., Gokiert, R., Quintanilha, M., Edwards, K., Mellon, P., Skoye, M., & Malin, A. (2024). Essential conditions for partnership collaboration within a school-community model of wraparound support. *Journal of Child and Family Studies, 33,* 2962–2997. https://doi.org/10.1007/s10826-024-02903-1

Miller, G. E., & Khatib, S. M. (2023). Honoring diverse cultures through family literacy approaches that build family, school, and community partnerships. *The Reading Teacher, 76*(5), 586–593. https://doi.org/10.1002/trtr.2181

Morris, E. M., & Cheng, Y.-L. (2025). Parents as allies: Innovative strategies for (re)imagining family, school, and community partnerships. *Education Sciences, 15*, Article 533. https://doi.org/10.3390/educsci15050533

Reid, S. F., & Sun, J. (2024). Sparking K–8 students' connections with the arts: Perspectives on a school-community organization partnership. *Art Education, 77*(2), 40–46.

Reinhardt, K., & Rizwan, S. (2025). Strengthening school-university partnerships using shared governance. *School-University Partnerships, 18*(3), 396–417. https://doi.org/10.1108/SUP-03-2025-0009

Ruhr, L. R., & Danforth, L. (2024). School staff perceptions of community afterschool partnerships. *Afterschool Matters, 38*, 29–38.

Schutz, M. A., Carter, E. W., Maves, E. A., Gajjar, S. A., & McMillan, E. D. (2021). Examining school-community transition partnerships using community conversations. *Journal of Vocational Rehabilitation, 55*, 131–145. https://doi.org/10.3233/JVR-211152

Zhang, J., Kang, L., & Gu, L. (2024). Beyond classroom instructions: The impact of teachers' behaviors in family-school-community partnerships on academic achievement. *Frontiers of Education in China, 19*(4), 421–437. https://doi.org/10.3868/s110-010-024-0023-0

Empowering Resilient Learners:
Strategies for Leading Students Beyond the Fog

Amanda Brueggeman, Ed.D.

In today's turbulent educational climate, students and educators alike are navigating an "emotional and academic fog". We are living in a V.U.C.A. world, one defined by Volatility, Uncertainty, Complexity, and Ambiguity (Prendergast et al., 2026). In this environment, traditional instruction is often insufficient; learners require a foundation of agency, purpose, and emotional stamina.

Resilience is the "muscle" that allows students to thrive in spite of these challenges. It is not an innate trait; it is a system of habits that must be intentionally cultivated through clear, actionable routines (Prendergast et al., 2026). Moving from a reactive to a proactive resilience framework offers a pathway to not only improve student well-being but also to deepen academic engagement. To build a resilient classroom, educators can integrate several key habits into their daily instructional routines.

Building the "I" Skills: Nurturing Core Beliefs

The journey toward resilience begins with the internal "I" skills: "I can" (capability), "I will" (determination), and "I see" (growth mindset). For students to move from a passive mindset to one of curiosity, they must first believe in their ability to learn (Brueggeman, 2022). Educators can foster this by helping students identify their unique strengths and articulate their needs.

The Lens of a Student: Dominic, a middle schooler, illustrates that this belief often starts with a human connection. He found that learning became easier when his math and science teachers built rapport by discussing shared interests, like sports or family, during the first week of class. This rapport laid the groundwork for him to eventually take ownership of his learning, such as watching videos independently before seeking help (Prendergast et al., 2026).

The Lens of a Teacher: Diane, an experienced educator, echoes this need for authentic connection. She emphasizes that witnessing student growth is a gift that requires "hard, messy, and frustrating" work. Diane once cried in front of her students while reading Stone Fox, an act of vulnerability that left them unsure at first. But ultimately fostered a supportive classroom culture where empathy was valued alongside academic achievement (Prendergast et al., 2026).

The Power of Purpose: Clarifying Success

Resilience is fueled by purpose. Students are not typically burned out by learning itself, but by learning that lacks a clear "why." To foster resilience, educators must move beyond defining success by grades and instead focus on intrinsic motivation and student-driven clarity.

The Lens of a Student: Jaden experienced this shift in her Controversial Studies class. Initially, she approached assignments with the goal of "winning" an argument by undermining others. However, when her teacher, Mr. Underburg, clarified that the true purpose was to communicate effectively while respecting differing viewpoints, Jaden's approach transformed. Understanding the "why" allowed her to acknowledge the validity of other perspectives and significantly improved the quality of her work (Prendergast et al., 2026).

The Lens of a Teacher: For Jess, an elementary teacher, clarifying success meant "unpacking" learning progressions to make them student-friendly. She recalls a student who often struggled with frustration but found a "visible path" to success by comparing their work to leveled examples. The student realized, "Oh, I'm at a Level 2 because I need more details! I know what to do to get to Level 3!"

This shared understanding of success transformed a moment of potential defeat into an achievable goal (Prendergast et al., 2026).

From Proximity to Partnership: Moving from Groups to Team Collaboration

In a V.U.C.A. world, the ability to function as an interconnected team is a vital workforce skill. However, simply placing students in a group does not guarantee collaboration; it requires intentional structures that foster collective student efficacy.

The Lens of a Student: Mark's experience in a history project highlights the "pitfalls" of unstructured groups. When he tried to share an idea about historical propaganda, his peers dismissed it as "off-topic". The lack of a safe space for inquiry caused Mark to disengage, hiding behind his notebook rather than risking further ridicule (Prendergast et al., 2026).

The Lens of a Teacher: Mr. Ramirez addressed this exact dynamic during a fourth-grade mural project. When he saw students dominating others or arguing over colors, he paused the class to co-create "Collaboration Norms". By asking, "What makes teamwork feel good?", he helped his students move from working beside one another to creating together (Prendergast et al., 2026).

Grit with Heart: Persevering through Obstacles

Perseverance is about viewing obstacles as "stepping stones" for growth rather than signs of failure. This "grit with heart" is developed when students learn to analyze their mistakes and activate their existing assets. Teachers can help by normalizing struggle and using an asset-based approach to dispel deficit thinking.

The Lens of a Student: Cecelia, a high schooler with no running experience, joined the cross-country team to find a connection. Her first race was humbling and discouraging, but she committed to analyzing her stride and attending every practice. This persistence on the track eventually transferred to her violin practice and academics, teaching her that fears are simply learning opportunities (Prendergast et al., 2026).

The Lens of a Teacher: Joe, a STEM teacher, fosters this mindset by "asking more and telling less." When students declare defeat, saying "I don't understand!", Joe responds with "What have you tried?" and "Show me your work." These simple prompts transform a moment of struggle into a starting point for innovation, such as when one student used testing materials in an unconventional way that surprised even the teacher (Prendergast et al., 2026).

Conclusion: A Roadmap for Sustainable Growth

As the narratives of these students and teachers show, teaching with resilience in mind is a deeply human endeavor. It requires educators to adopt a 'Mentor Mindset,' moving away from a role of "directing and correcting" toward one of partnership and guidance (Prendergast and Lee, 2024; Yeager, 2024). By embedding these habits into daily practice, educators can ensure their students leave the classroom not just with knowledge but with the "resilience muscle" necessary to lead and thrive in an ever-changing world (Prendergast et al., 2026).

The strategies highlighted here are only the beginning. For educators looking to bridge the gap between theory and practice, the complete Habits for Resilient Learners framework provides actionable tools for every level. Cultivating resilience isn't a one-time lesson; it's a series of intentional, repeatable habits that empower students to take the lead in their own developmental journey.

Dr. Amanda Brueggeman has dedicated over 20 years to education, beginning her career as an elementary classroom teacher and later serving as a literacy coach. She provides professional learning to educators nationwide, specifically for new teacher mentors, drawing on her book, Student-Centered Mentoring (April 2022). Amanda also promotes resilience as a habit and is co-author of the book Habits for Resilient Learners (Corwin, 2026).

Brueggeman, A. (2022). *Student-centered mentoring: Keeping students at the heart of new teachers' learning.* Corwin.

Prendergast, L., Lee, P., & Brueggeman, A. (2026). *Habits for resilient learners: Empowering students to thrive through challenge and change.* Corwin.

Prendergast, L., & Lee, P. (2024). *Habits of resilient educators: Strategies for thriving during times of anxiety, doubt, and constant change.* Corwin.

Yeager, D. S. (2024). *10 to 25: The science of motivating young people.* Simon & Schuster.

Achievement Gaps Don't Start With Students; They Start with Materials.

Rethinking Instructional Materials through a Student-Centered Lens

Rebecca M. Henderson, Ed.D.

Walk into two Algebra I classrooms in the same district. The teachers understand the standards and align their pacing guides accordingly. Both teachers are experienced and committed, yet their outcomes differ.

In one classroom, students move confidently through problems, discussing strategies and building connections. In the other, students hesitate, waiting for the teacher to model each step. Engagement in this second classroom feels heavier, and progress feels slower.

For years, my conversations with principals and teachers have followed a familiar path of evaluating instructional strategies, revising questioning techniques, and deepening professional learning. We rarely examined something more influential: the textbooks, problem sets, and examples in students' hands each day. Over time, a pattern emerged. In many cases, understanding school struggles with decreasing achievement gaps didn't involve instruction or the teacher. It was the instructional materials shaping what students were learning, and the experiences those materials created.

The Leadership Blind Spot: What We Focus On vs. What We Overlook

In district and building leadership work, significant energy is often directed towards improving instruction. Funding for comprehensive professional development is included in our budgets. There is a focus on refining teaching strategies based on student data. Teachers work to align assessments across classrooms. Leaders consider which technologies to adopt to support instruction and interventions. These are the levers we know and plan for.

But in strengthening what teachers do, the tools shaping that instruction are often overlooked. Hard questions about the materials themselves often go unasked: the textbooks, digital platforms, and daily tasks that determine what students practice, what they see reflected, and what they believe they are capable of learning.

In many districts, resources are purchased and forgotten. Yet instructional materials are not neutral. They define the conditions of learning, signaling whose stories matter, which skills become prioritized, and how students engage with grade-level standards. While lesson plans and assessment data are closely scrutinized, instructional materials are often accepted at face value, assuming that standards-aligned means student-ready. In doing so, one of the most powerful drivers of opportunity to learn is often overlooked. Too often, instructional materials are treated as supplies rather than strategy, instead of the learning experiences they are.

What Research and the Field Reveal

If schools are to be truly student-centered, leaders must look beyond how teachers deliver instruction and focus on how they design learning experiences for students. When I began examining instructional materials more intentionally by reviewing resources, listening to educators, and analyzing alignment, consistent patterns emerged. These patterns reflect what research has long suggested about the role materials play in student outcomes.

First, materials do not always reflect the standards they claim to support. While many vendors market their resources as aligned, closer reviews often reveal gaps in assessed content (Kaufman et al., 2021; Polikoff, 2015). When key concepts are missing or unevenly emphasized, teachers must supplement to fill those gaps.

Second, materials do not always reflect students. Textbook contexts can feel generic or culturally distant, limiting relevance. Research on culturally responsive teaching reminds us that students learn more effectively when instruction connects to their lived experiences (Gay, 2010). When that connection is absent, engagement declines before instruction can take hold.

Research also shows that student learning is shaped not only by teacher expertise but by the quality of instructional materials students use daily (Chingos & Whitehurst, 2012). When materials require constant modification, the burden falls on individual educators rather than the system. The pattern is clear: even the strongest teachers struggle when tools and materials are designed without students in mind.

What Research and the Field Reveal

Improving instructional materials is not simply a curriculum task. It is a design challenge. Across the country, leaders are articulating this shift. AASA, The School Superintendents Association's *Public Education Promise: A Future-Ready Framework for Education* (AASA, 2025) calls on districts to create environments where every student feels valued and prepared for success. In Pennsylvania, the Student-Centered Learning movement challenges us to intentionally design systems around learners' needs and identities. The Pennsylvania Student-Centered Learning (PASCL) Blueprint serves as a collaborative framework that helps districts assess and advance system-wide implementation of student-centered learning (PASCL, 2024).

Both efforts share a common premise: schools must place students at the center, not programs. Yet many improvement efforts still center on coverage, compliance, and purchasing the next solution. We adopt programs and train teachers for fidelity rather than designing learning responsively.

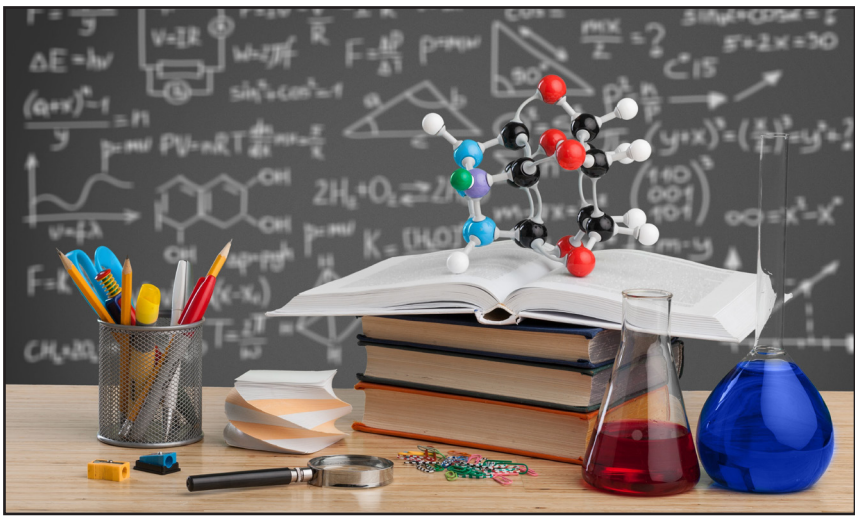
A student-centered approach begins with the learner: with relevance, access, belonging, and agency. Through this lens, instructional materials are not static content containers. They are learning experiences. They shape how students enter a task, how they see themselves reflected in it, and how many pathways they have to demonstrate understanding. Viewed this way, school improvement shifts from selecting programs to designing experiences.

When we think like designers, new questions emerge: Can students see themselves reflected? Does this resource reduce barriers? Does it offer multiple pathways? Can teachers adapt it to the learners in front of them? These are questions of fit, not fidelity. Leaders build student-centered systems by making intentional design choices. When we treat materials as design choices rather than fixed purchases, we begin to see them as experiences and prioritize flexibility.

Why This Matters for Equity

This reality extends across student groups: students with disabilities, English Learners, students experiencing economic hardship, students with interrupted learning, and students whose needs do not align with a single pathway through content. When examples feel culturally distant, when language creates barriers, or when tasks assume narrow background experiences, students struggle to engage (Gay, 2010; Hammond, 2015). When students do not see themselves reflected in the work, belonging erodes, and persistence and achievement often follow.

Designing for equity requires knowing who our students are and how they access content, where barriers exist, and how materials widen or narrow opportunity gaps. Without this intentionality, even strong instruction struggles to overcome designs never meant to serve all learners. Equity is shaped before instruction begins, in the design of the learning experiences we place in front of students.



Practical Leadership Moves: Where to Start

Rethinking how instructional materials should be prioritized does not require a sweeping initiative. Small design decisions can create meaningful shifts in student experiences.

1. Conduct a materials audit.
Inventory the textbooks, digital platforms, and supplemental resources students use daily to identify alignment gaps and see whose experiences the materials reflect, or overlook.

2. Reinvest in standards learning.
Ensure teams share clarity about standards and assessed content so materials are evaluated critically rather than accepted at face value.

3. Include student voice.
Gather feedback about which tasks feel meaningful, confusing, engaging, or disconnected to reframe materials review as an experience design conversation.

4. Prioritize adaptable tools.
Select flexible resources, including Open Educational Resources, that enable teachers to adapt content to local contexts and learner needs.

5. Invest in implementation support.
Create structured time and collaboration so educators can use materials thoughtfully and consistently.

None of these steps requires perfection; they require intention. Small design choices, such as the tasks we select, the examples we include, and the tools we make flexible, can produce system-wide impact when made with students in mind.

Design the Experience First

Let's return to those two Algebra I classrooms. This was not a matter of insufficient teaching, student effort, or unclear standards; rather, all three were solidly in place. What differed was the design of the learning experience, the tasks students engaged with, and the accessibility of the content placed before them.

As leaders, we often ask teachers to refine strategies and students to work harder. These efforts matter. Before we ask for more effort, we must examine the tools we provide. Instructional materials are not neutral background elements. They are daily design choices that determine who feels connected and who has a genuine opportunity to succeed. When we see materials as experiences rather than supplies, school improvement shifts from chasing the next program to designing responsive, relevant learning environments.

The path forward begins with perspective, not purchase. When leaders treat materials as design choices, and teachers adapt them around learners, relevance and growth become the norm. That is the promise of student-centered design.

Dr. Rebecca Henderson serves as the Educational Enterprise Services Director at the Westmoreland Intermediate Unit in Pennsylvania, where she leads strategic partnerships, business development, and innovative educational services to support K-12 districts. With extensive experience in curriculum and instruction, online learning, professional learning, and educational leadership, she specializes in leveraging artificial intelligence (AI), open educational resources (OER), and digital equity strategies to improve teaching and learning.

AASA, The School Superintendents Association. (2025). *Public Education Promise: A Future-Ready Framework for Education.*

Chingos, M. M., & Whitehurst, G. J. (2012). *Choosing blindly: Instructional materials, teacher effectiveness, and the Common Core*. Brookings Institution.

Gay, G. (2010). *Culturally responsive teaching: Theory, research, and practice* (2nd ed.). Teachers College Press.

Hammond, Z. (2015). Culturally responsive teaching and the brain: Promoting authentic engagement *and rigor among culturally and linguistically diverse students*. Corwin.

Henderson, R. M. (2023). Understanding the Impact of Culturally Responsive InstructionalMaterials on Middle School Students' Math Achievement Scores in WestmorelandCounty. https://jetty.klnpa.org/_flysystem/fedora/2024-09/Henderson%20Manuscript%20File%20-%20FINAL.pdf

Kaufman, J. H., et al. (2021). *Curriculum materials matter: How teachers use curriculummaterials to improve instruction. RAND Corporation.*

PASCL. (2024). *Student-centered learning blueprint for Pennsylvania.* https://oercommons.org/courseware/lesson/121836/overview

Polikoff, M. S. (2015). How well aligned are textbooks to the Common Core standards in mathematics? *American Educational Research Journal, 52*(6), 1185–1211. https://doi.org/10.3102/0002831215584435

Serious About Play:

Developing Playful Mindset for Secondary Teachers

Brian Stevko, Ed.D.

The power of play has been widely explored and recognized as a vital component of learning in the field of education since the work of John Dewey and Lev Vygotsky recognizing play as a cornerstone of children's cognitive, social, and emotional growth (Dewey 2008; Vygotsky 1978). Research continues to build on this foundation by highlighting play's ability to improve a plethora of skills such as self-regulation, resilience, creativity, and confidence (Arnab et al., 2021; Johnstone, 2022; Taylor & Boyer, 2020). Most importantly, it rekindles the joy of learning for both students and teachers alike (Koeners & Francis, 2020). However, the issue is not with play itself, but with the fact that learning through play is commonly embraced in elementary education and far less frequently implemented in secondary education (Dean & Wenner, 2025). Designing engaging learning experiences is an essential responsibility for secondary teachers, as it helps prepare students for success in life beyond high school. Play can be a pedagogical tool to craft those experiences. It's time to take play seriously and intentionally implement it in secondary education. The question then becomes: where should secondary teachers begin?

A Playful Mindset

The belief that you can do anything you set your mind to is perhaps nowhere more applicable than in the classroom. Cultivating a playful mindset is essential to successfully implementing play in the classroom. Yet defining what play truly is, and how to use it effectively, can feel daunting amid limited time, standardized testing, and curriculum demands (Rodriguez-Meehan, 2022). To answer what play is, Pyle and Danniels (2017) developed a continuum of play-based learning grounded in levels of adult involvement. Their framework outlines five distinct types of play: free play, inquiry play, collaborative play, playful learning, and learning through games (Pyle & Danniels 2017).

Figure 1

Pyle and Danniels' (2017) Continuum of Play-Based Learning

Table 1
Description of Types of Play According to Pyle and Danniels (2017)

Free play	A student-directed experience with little to no teacher involvement.
Inquiry play	Primarily student-driven, with the teacher responding to and building upon students' interests and questions.
Collaborative play	A shared learning experience in which the teacher identifies learning goals while students choose resources and approaches.
Playful learning	Largely teacher-directed, but intentionally structured to be engaging and enjoyable.
Learning through games	Purposefully designed games that reinforce or teach specific content and skills.

This framework serves as a lens through which teachers can design play-based lessons or reimagine existing ones to incorporate play. In doing so, teachers are able to evaluate the degree of control they have over the learning experience, the level of enjoyment it will provide, and the intended learning outcomes. Adopting a playful mindset expands teaching pedagogies beyond project-based learning — an approach closely intertwined with play-based learning, yet insufficient to define it. The key distinction lies in the fact that project-based learning requires a tangible product, such as a video, poster, or model, whereas play does not necessarily culminate in a produced outcome (Pyle & Danniels, 2017). An enjoyable, collaborative experience grounded in discussion and laughter is a powerful way to achieve learning goals.

Play is rooted in the experience and prioritizes the process over the product. The curiosity sparked, the problems explored, and the connections made along the way is where the benefits of play are cultivated (Zosh et al., 2017). It is through this process that children engage most authentically, not because they are working toward something, but because the experience itself is meaningful and rewarding (Zosh et al., 2017). To truly harness the power of play, it starts with a playful mindset, a willingness to embrace play as a legitimate pedagogical tool, and an understanding of what play is and how it supports learning effectively in the classroom.

Recommendations for Implementation

Implementing a playful mindset in the classroom begins with intentional reflection and understanding what play is. By examining lessons through the lens of play, exploring the types of play according to the continuum, and spreading this mindset among educators, teachers can create learning experiences that are both meaningful and enjoyable. The following recommendations provide ways to start integrating play into secondary education.

Use Play as a Lens

Reflect on lessons that students perceive as fun and engaging. Using the continuum of play-based learning, consider where those lessons fall and identify in which type of play they most closely align. Carefully examining the balance of control between teacher and students, the extent of skill development embedded in the lesson, and the emotional responses it generates will position the experience along the play-based learning continuum.

Consider the following questions:

- ***Who establishes the learning goal?***
- ***Who selects the resources used to achieve that goal?***
- ***Does the lesson evoke a sense of joy and engagement?***
- ***Are students actively developing social skills and creativity?***

The ability to thoughtfully answer these questions helps align a lesson with a playful pedagogy and, over time, strengthens the development of a playful mindset. Chances are that many teachers are already incorporating types of play into their classrooms. They simply may not recognize or define it as play.

Collaborative Play and Playful Learning

While all types of play can be incorporated, collaborative play, playful learning, and learning through games tend to be more common in secondary education (Stevko, 2024). Among these, collaborative play and playful learning offer the greatest impact by fostering a student-centered environment and connecting learning meaningful and enjoyable experiences. What sets these experiences apart is often a single playful twist. A small but deliberate shift that transforms an ordinary lesson into something students genuinely look forward to. Consider a middle school social studies teacher who wants their students to understand life during the Paleolithic Age. To open the lesson, the teacher could simulate the basic communication of early humans by remaining silent and conveying meaning solely through grunts and drawings on the whiteboard. This immersive entry point invites students into the experience before a single word of direct instruction is spoken. Such playful twists highlight the transformative power of play, and a build mindset that's rooted in creative freedom for both students and teachers.

Spread the Mindset

It's time to take play seriously. The greatest barrier to incorporating play in secondary education is a widespread lack of awareness. The term "play" is often linked to Pyle and Daniels' (2017) concept of free play and pictured as elementary students running freely on the playground. In reality, the definition of play is far more complex. The continuum of play-based learning offers guidance for understanding and defining play in more meaningful ways. This approach calls to teachers who are ready to reclaim joy in the classroom. It pushes back against the constant pressure of standardized testing, disrupts stale routines, and invites both teachers and students to laugh, experiment, and rediscover the fun in learning. Think of it like this: you can work on an idea, or you can play with an idea. Both move you forward, but only one makes the journey genuinely fun.

Dr. Brian Stevko is a middle school social studies teacher from Palmerton, Pennsylvania. His commitment to creative freedom and playful learning transforms his classroom into a space where meaningful experiences and genuine laughter go hand in hand.

Dean, N. S., & Wenner, A. J. (2025). Patterns and representation in play-based learning: A systematic meta-synthesis of empirical studies in K–13+ settings. *Frontiers in Education, 10,* Article 1557001. https://doi.org/10.3389/feduc.2025.1557001

Dewey, J. (2008). Democracy and education. Project Gutenberg. https://www.gutenberg.org/files/852/852-h/852-h.htm

Johnstone, A. (2022). An inquiry into teachers' implementation of play-based learning aligned approaches within senior primary classes. *Kairaranga, 23*(1). 17-34. https://doi.org/10.54322/kairaranga.v23i1.331

Koeners, M. P., & Francis, J. (2020). The physiology of play: Potential relevance for higher education. *International Journal of Play, 9(*1), 143-159. https://doi.org/10.1080/21594937.2020.1720128

Pyle, A., & Danniels, E. (2017). A continuum of play-based learning: The role of the teacher in play-based pedagogy and the fear of hijacking play. *Early Education and Development, 28*(3). 274-289. https://doi.org/10.1080/10409289.2016.1220771

Rodriguez-Meehan, M. (2022). "Could that be play?": Exploring pre-service teachers' perceptions of play in kindergarten. *Early Childhood Education Journal, 50*(8), 1303-1316. https://doi.org/10.1007/s10643-021-01257-3

Stevko, J. B. (2024). *All work and no play? Examining playful pedagogies in secondary education* [Unpublished doctoral dissertation]. Wilkes University.

Vygotsky, L.S. (1978). *Mind in society. The development of higher psychological processes.* Harvard University Press. https://home.fau.edu/musgrove/web/vygotsky1978.pdf

Zosh, J. M., Hopkins, E. J., Jensen, H., Liu, C., Neale, D., Hirsh-Pasek, K., Solis, S. L., & Whitebread, D. (2017). *Learning through play: A review of the evidence.* LEGO Foundation. https://cms.learningthroughplay.com/media/wmtlmbe0/learning-through-play_web.pdf

Materials Matter, but Implementation Matters More

Tochukwu Okoye, MPA

Navigating Curriculum Shift

A few years ago, while designing curriculum implementation supports in graduate school, I conducted a survey to understand how teachers felt about implementing newly adopted high-quality instructional materials (HQIM). These standards-aligned materials—such as EL Education and Illustrative Mathematics—are increasingly used in subjects like ELA and math to support coherent, rigorous grade-level instruction for all students. The survey results showed that, for many teachers, adopting HQIM felt less like added support and more like a mandate to move away from deeply embedded practices they had become accustomed to.

For decades, teachers have sourced and built their own materials based on what they know or what works for their students. The popularity of platforms like Teachers Pay Teachers and Share My Lesson reflects this reality. Survey data from RAND Corporation—a nonprofit, nonpartisan research organization—reinforces this pattern. A large number of teachers report relying primarily on self-created or independently sourced materials, particularly in English Language Arts (ELA). This reliance increases across grade levels, from 37% of elementary teachers to 56% in middle school and 72% in high school. (RAND Corporation, 2023). These numbers reflect more than preference; they reflect professional judgment and care in meeting the needs before them. When this foundation shifts because of a district mandate to adopt HQIM, the change can feel not just procedural but personal, as if what has worked in their classrooms is being set aside.

At the same time, this approach has not always led to consistent or standards-aligned instruction. Research examining supplemental online materials has raised concerns about quality and alignment. Many materials are uneven in rigor, poorly aligned to standards, and inconsistently designed to support diverse learners or sustained cognitive demand (Polikoff & Dean, 2019).

This patchwork of materials also leads to variability across districts and across classrooms in the same building. Students' access to

grade-level content can depend more on individual teacher sourcing than on a coherent instructional vision.

As such, districts across the country are moving toward HQIM in math and ELA. In ELA, the science of reading movement, reflected in evidence-based instructional policies now adopted across more than 40 states (Hagerman, 2024), has accelerated this transition. Across both subjects, increased attention to instructional quality following pandemic-related learning disruptions, combined with EdReports reviews of curriculum materials and multi-state efforts such as the Council of Chief State School Officers' Instructional Materials and Professional Development (IMPD) Network (Council of Chief State School Officers [CCSSO], n.d), have helped define quality and sustain adoption. The shift is real—and it is not slowing down.

The challenge for district leaders is that adoption is not the same as implementation.

Implementing HQIM requires more than just providing new materials. The real work is the support teachers receive. School leaders must recognize this departure from the norm of teacher-created and self-sourced materials, acknowledge that change brings both technical and emotional challenges, and provide ongoing support for teachers. Without this support, effective implementation won't take root on its own.

A Practical Framework for HQIM Implementation

During my time at the Center for Public Research and Leadership (CPRL) at Columbia University, I contributed to the development and piloting of the Curriculum Implementation Change Framework (CICF). The framework was built on a simple premise: if leaders want stronger implementation, they must first understand how teachers experience the curriculum because not all implementations look the same.

Even when teachers use new materials, usage varies widely. Some adapt too heavily, drifting from the design. Others don't use the materials at all or mix and match them with other resources, thereby underutilizing key components (Steiner, 2024). Because teachers use materials so differently, leaders need a clear view of what's actually happening in classrooms. Without that clarity, professional learning fails to address teachers' implementation journeys and concerns. Teachers are expected to differentiate instruction for students, yet their own professional learning could benefit from greater customization to better meet their needs. This lack of customization remains a key frustration for district leaders (EdWeek, 2019).

CICF addresses that gap. Recognizing that curriculum change is a personal journey for educators, CICF makes teachers' needs, feelings, and concerns visible. Change leaders can then design professional learning experiences tailored to support teachers at the point they are on their journey toward successful implementation.

CICF works in the following ways: these steps mirror the process that PL leaders can use or adapt in supporting curriculum change management and implementation.

Understand Where Teachers Are

Before designing professional learning, leaders gather data through CICF tools (surveys and classroom observations) to understand three core dimensions (Center for Public Research and Leadership [CPRL], 2024):

1. Teacher Feels and Focus

How do teachers feel about the curriculum—"positive, neutral, or negative"? What concerns do they have? Are they focused on how the change affects them, their students, or the tasks required to implement the curriculum?

2. Extent of Use

Are teachers barely engaging, experimenting, building routines, managing implementation, or maximizing the use of the materials?

3. Quality of Use

Are materials implemented as designed? Is instruction aligned to teaching and learning goals and practice? Is their implementation quality emerging, progressing, or refining? CICF's implementation progressions, an observation tool, makes the quality of use explicit.

Leaders need an honest picture of the landscape before deciding on the support needed. Understanding teachers' needs is less about compliance and more about clarity.

Categorize Teachers Based on Where They Are

Using the dimensions above, CICF clusters teachers into personas that help leaders think strategically about support. CICF has identified five personas of teachers who accompany curriculum change efforts (CPRL, 2024; Chu et al., 2025):

SUPPORTERS
Positive feelings and skilled users.

ROOKIES
Open but still building confidence and skill in using the materials.

SKEPTICS
Resistant and minimally engaged.

CHALLENGERS
Skilled users but critical of the materials and unconvinced of their benefits.

NAVIGATORS
Misaligned between perceived and observed use.

These are not categories to box teachers in. They are tools to guide differentiated support and measure how professional learning shifts teachers up or down across an implementation continuum.

Action Planning Using Teacher Insights

One-size-fits-all support approaches stall implementation, whereas differentiated support catalyzes it. Once leaders understand teacher personas, they can:

► Identify trends in implementation personas and patterns across schools, grade levels, and experience levels.
► Audit systemic barriers impacting implementation.
► Design targeted, curriculum-based professional learning.

For example, Chu et al. (2025) identify targeted actions to support different educator profiles:

• **Supporters** can serve as peer models who assume leadership in curriculum implementation. Providing resources to further strengthen their mastery and encouraging them to share best practices with colleagues can enhance overall implementation quality.

• **Rookies** need time to learn the materials and benefit from coaching. Pairing them with supporters for collaborative learning, observation, and co-teaching opportunities can equip them with the skills and mindsets to accelerate their implementation.

• **Skeptics and Challengers** require listening first to understand and learn from their concerns, address negative feelings, and increase their confidence and belief in materials, and sometimes identify structural barriers that undermine implementation. Challengers are also critical learning partners that can help support problem-solving in identifying evidence that builds their trust in materials.

• **Navigators** need tailored support to apply materials correctly. Clarity around instructional vision and expectations, and building their capacity to address misconceptions, helps reduce frustration.

Importantly, this is not a one-time exercise. Progress becomes evident as feelings, use, and quality are monitored and shifted over time. As teacher experience evolves, so should support.

Why This Matters

HQIM adoption is not just a materials shift; it is a practice shift that necessitates clarity and differentiated support. Yet teachers are left to navigate the challenges of change on their own. When leaders acknowledge that change is emotional as well as instructional, they start by asking three practical questions:

- **How do teachers feel about the curriculum?**
- **What are their implementation concerns?**
- **How are they using it?**
- **How well are they using it?**

Those answers shape smarter support. Teachers feel seen. Support becomes relevant. Implementation improves.

The CICF offers leaders a structured way to move beyond assumptions about curriculum implementation and generate actionable insights. It helps districts personalize professional learning, just as we expect teachers to personalize instruction for students. This thoughtful implementation makes HQIM a true lever for improvement, not another initiative layered onto an already full plate.

District leaders often focus on selecting strong materials. That work matters. But student outcomes improve when strong materials are paired with strong change management that is both technical and emotional.

Tochukwu Okoye is a Senior Research Associate at EdSolutions, where she advises foundations and non-profits on curriculum quality and implementation strategy to improve student outcomes. Her work spans HQIM, early childhood, work-based learning, and continuous improvement across K–12 contexts. She serves as a board member of Learning Forward Pennsylvania and has held roles at the British Council, the Illinois Board of Higher Education, and the Centre for Public Research and Leadership. Tochi holds an MPA from Columbia University and a BSc in Education from the University of Benin.

Center for Public Research and Leadership. (2024). *Curriculum Implementation Change Framework.* https://cprl.law.columbia.edu/content/curriculum-implementation-change-framework

Chu et al. (2025). *The learning hive: Leading collective innovation to transform education systems.* Teachers College Press.

Council of Chief State School Officers. (n.d.). *CCSSO's high-quality instructional materials and professional development (IMPD) network.* https://learning.ccsso.org/high-quality-instructional-materials

EdWeek Market Brief (2019, November 7). *Professional development problems & proposed Solutions: What district leaders want.* EdWeek Markt Brief https://marketbrief.edweek.org/education-market/districts-biggest-pd-needs-and-the-solutions-they-want/2019/11

Hagerman, G. (2024, October 4). *The "multiverse" of the science of reading.* National Education Association. https://www.nea.org/nea-today/all-news-articles/science-of-reading#

Polikoff, M.S., & Dean, J. (2019, December 12). *The supplemental-curriculum bazaar: Is what's online any good?* Thomas B. Fordham Institute. https://fordhaminstitute.org/national/research/supplemental-curriculum-bazaar

RAND Corporation. (2023). *American instructional resources surveys: 2023 technical documentation and survey results.* RAND Corporation. https://www.rand.org/pubs/research_reports/RRA134-20.html

Stein, M. (2024, December 12) *Why teachers don't use the high-quality instructional materials they're given.* Thomas B. Fordham Institute. https://fordhaminstitute.org/national/commentary/why-teachers-dont-use-high-quality-instructional-materials-theyre-given

On the EDGE

Articles on federal or state policy updates and implications

Professional Teacher Mentor Certification:

From General Retention to Professionalized Teacher Leadership

Andrew Hoffert, Ed.D. • Adrianna Brumbaugh • Daniel Cullen, Ed.D.

Pennsylvania's public education system faces a critical threat from a severe teacher shortage and alarming attrition rates. Since 2010, the number of annual teacher certifications issued across the Commonwealth has plummeted dramatically, falling from approximately 20,000 to fewer than 7,000 (Pennsylvania Department of Education [PDE], 2022). This staggering decline—more than two-thirds in a single decade—is twice the national average, resulting in a rapid loss of educators. While top-performing global education systems maintain teacher attrition rates below three percent, Pennsylvania struggles with a troubling six percent rate, with charter schools often faring worse (Boyce & Morton, 2023). According to the research, two primary issues outside of personal life circumstances are driving this mass exodus: stagnant salaries and deteriorating working conditions (Will, 2022).

A closer look at the crisis reveals a fundamental problem: Pennsylvania lacks a coherent, statewide structure to professionalize, standardize, and adequately support teacher mentorship and leadership (#PANeedsTeachers et al., n.d.). This absence creates widespread inconsistency. The commonwealth currently operates without a formal career ladder for educators, meaning teaching roles are not differentiated based on instructional expertise. As a result, high-performing educators lack an explicit pathway to remain in the classroom, and professional advancement is primarily tied to years of service and accumulating coursework, instead of demonstrated instructional effectiveness, leadership, or mentoring capacity. As it stands, advancing one's career often dictates leaving the classroom for an administrative role (Fuller, 2022). It's this professional culture that must change. Because mentor teacher programs are determined locally across more than 500 school districts, charter schools, and intermediate units, mentorship policies remain highly fragmented, leading to wide variability in quality, content, and accountability (Boyce & Morton, 2023).

The economic prospect of teaching as a profession continues to disappoint. As the cost of post-secondary education climbs, teacher compensation remains historically low, worsening the financial value proposition of the profession in Pennsylvania (Boyce & Morton, 2023). Furthermore, the state offers minimal guidance, incentives, or funding for structured mentorship and advanced instructional roles, ultimately placing the burden on districts with drastically uneven capacity. An equitable remedy means that a state-level solution is absolutely critical if we are to move beyond the current, arguably insufficient minumum guidelines for Educator Induction Plans set by PDE. Investing strategically in teacher

retention through well-defined career ladders is essential and directly aligns with core policy goals (Boyce & Morton, 2023).

Progress has recently been made on this issue, offering a foundational level of support. While Pennsylvania requires school districts to provide mentors as a component of state-approved induction plans for new teachers (PDE, n.d.), recent legislation, including Act 55 of 2022 and Chapter 49 of the Pennsylvania School Code, strengthens this foundation by extending the required induction period and mentorship to two years, starting with the 2024–2025 school year. However, critical gaps persist. Although mentors are technically required to receive training, local discretion governs the specific methods, standards, and content, leading to inconsistent support for novice teachers across the commonwealth. Even more concerning is the lack of professionalization, since mentor teachers do not earn a formal state endorsement that recognizes their specialized learning through clearly defined, approved competencies. This lack of recognition can significantly undermine their value.

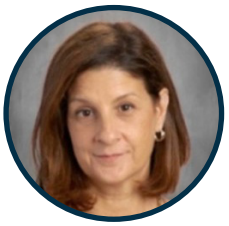
The necessary tools for change are available right now. The Commonwealth can leverage existing structures, specifically PA School Code Chapter §49.62b, which explicitly designates a Program Endorsement Certificate for Teacher Leaders. By applying the expectations detailed in the Framework for Skills for Teacher Leaders (2017) to mentor teachers, the state could easily provide a coherent, competency-based approach to formally endorse mentors. Some targeted programs are already showing great promise. For example, the Attract, Prepare, and Retain Project (APR) successfully addresses retention via induction, providing mentors for special education teachers with stipends, resources, and networking opportunities (PDE, 2024). Despite increasing mentees' professional growth since 2022, the absence of a formal endorsement for these mentors remains a glaring missed opportunity to recognize their valuable work. Independent action is also being taken by local leaders in districts like Grove City School District and Whitehall-Coplay School District, who have begun empowering teachers through highly flexible roles by redesigning their school cultures and employing teacher leadership teams, placing them at the heart of the problem solving process, and trusting them to make effective decisions for both their students, and the organization (#PANeedsTeachers et al., n.d.). While these promising local programs provide data that reinforces the need for a statewide policy, they unfortunately remain isolated initiatives rather than the standard practice.

Solving this problem requires a targeted, systemic intervention. However, instead of trying to solve retention through broad, sweeping salary mandates, we believe we should be narrowing the focus of our efforts in Pennsylvania to transforming the informal mentor role into a credentialed, state-endorsed position. To effectively attack this issue, we propose a two-pronged strategy that deliberately utilizes existing PDE structures to formalize and incentivize teacher mentorship. The first prong is regulatory: utilizing PA School Code Chapter §49.62b to formalize the mentor role as a credentialed, state-endorsed Teacher Leader position, which establishes clear, competency-based training standards. The second prong is a fiscal intervention: establishing a competitive grant program administered by the state that incentivizes local agencies to pilot innovative staffing models. This vital funding will ensure that mentors receive financial stipends commensurate with their expanded leadership role, while encouraging districts to use innovative strategies to protect time during the school day to observe instruction, plan collaboratively, and provide feedback.

It's clear that incentives significantly outperform mandates. By deliberately pursuing this path through State Board of Education regulations and PDE grants, we avoid a sweeping legislative statute that could inadvertently create a counterproductive compliance mentality among districts. This approach champions voluntary adoption driven by substantial financial incentives, perfectly aligning with the core policy design principle that solutions should primarily encourage, not force, participation (Boyce & Morton, 2023). Grant funding could, in essence, support the initial pilot program.

This policy shift is a crucial stepping-stone for Pennsylvania. Although the proposal begins with voluntary, incentivized participation, its successful adoption establishes a clear pathway for future, more permanent revisions to the state school code. Currently, PA School Code Chapter §49.16(d) vaguely dictates that an induction plan must simply reflect an undefined mentor relationship between the induction team and the first-year teacher. By eventually revising this statutory language to mandate a formalized mentor teacher who has completed rigorous training and earned an endorsement, the legislature can profoundly strengthen the required two-year induction plan. Ultimately, this comprehensive policy strategy will stabilize the induction experience for new educators and actively empower our most expert teachers to remain precisely where they belong: in the classroom.

Dr. Andrew Hoffert serves as the Assistant Superintendent of the Wilson School District in Berks County.



Adrianna Brumbaugh is the Supervisor of Secondary Academics at the Mechanicsburg Area School District.

Dr. Daniel Cullen serves as an Educational Consultant for PaTTAN, and as an Assistant Professor of Education for Northampton Area Community College.

Boyce, L., & Morton, A. (2023). *#PANeedsTeachers: Addressing Pennsylvania's teacher shortage crisis through systemic solutions.* Teach Plus Pennsylvania & National Center on Education and the Economy.

Fuller, E. (2022). *Pennsylvania teacher staffing challenges.* https://ceepa.psu.edu/assets/uploads/documents/ceepa-teacher-staffing-challenges-in-pennsylvania-ed-fuller-penn-state-university.pdf

#PANeedsTeachers, Teach Plus, & National Center on Education and the Economy. (n.d.). *Distributing leadership to teachers: Advancing quality and removing barriers.*

Pennsylvania Department of Education. (n.d.). *Educator induction plan guidelines.* https://www.pa.gov/agencies/education/programs-and-services/educators/continuing-education-and-professional-development/act-48-approved-providers/educator-induction-plan-guidelines

Pennsylvania Department of Education. (2017). *Framework for skills for teacher leaders endorsement guidelines.*

Pennsylvania Department of Education. (2022). *Act 82 of 2018 report.* https://www.pa.gov/agencies/education/data-and-reporting/school-staff/educator-preparation-and-certification#accordion-c579a8ef69-item-10e9975c3a

Pennsylvania Department of Education, Bureau of Special Education. (2024, November 2). *Attract – prepare – retain (APR) infographic* [Infographic].

Will, M. (2022, March 22). Fewer people are getting teacher degrees. Prep programs sound the alarm. *Education Week*. https://www.edweek.org/teaching-learning/fewer-people-are-getting-teacher-degrees-prep-programs-sound-the-alarm/2022/03

2026 PA EDGE Award Recipients

PA EDGE President's Award

Dr. Barbara Davis

Assistant Superintendent,
Eastern Lebanon County (ELCO) School District

PA EDGE Outstanding Curriculum Leadership Award

Dr. Michael W. Donnelly

Assistant to the Superintendent for Educational Services,
Palisades School District

PA EDGE Outstanding Supervision Leadership Award

Dr. Smita Weakland

Supervisor of English Language Development (ELD),
School District of the City of York

PA EDGE Outstanding Research & Publication Award

Dr. Ed Bureau & Dr. John Gould

"Schools as Seeds of Change: A Regenerative Approach to Transforming Learning"

PA EDGE Robert V. Flynn Memorial Distinguished Service Award

Dr. Brian Griffith

Superintendent,
Penns Valley Area School District

Full coverage of the PA EDGE award winners is now available.
Visit PAEDGE.org for the complete announcement.

Pennsylvania Educational Leadership Journal

Volume 44 Number 2

PA EDGE

PENNSYLVANIA EDUCATIONAL LEADERSHIP JOURNAL

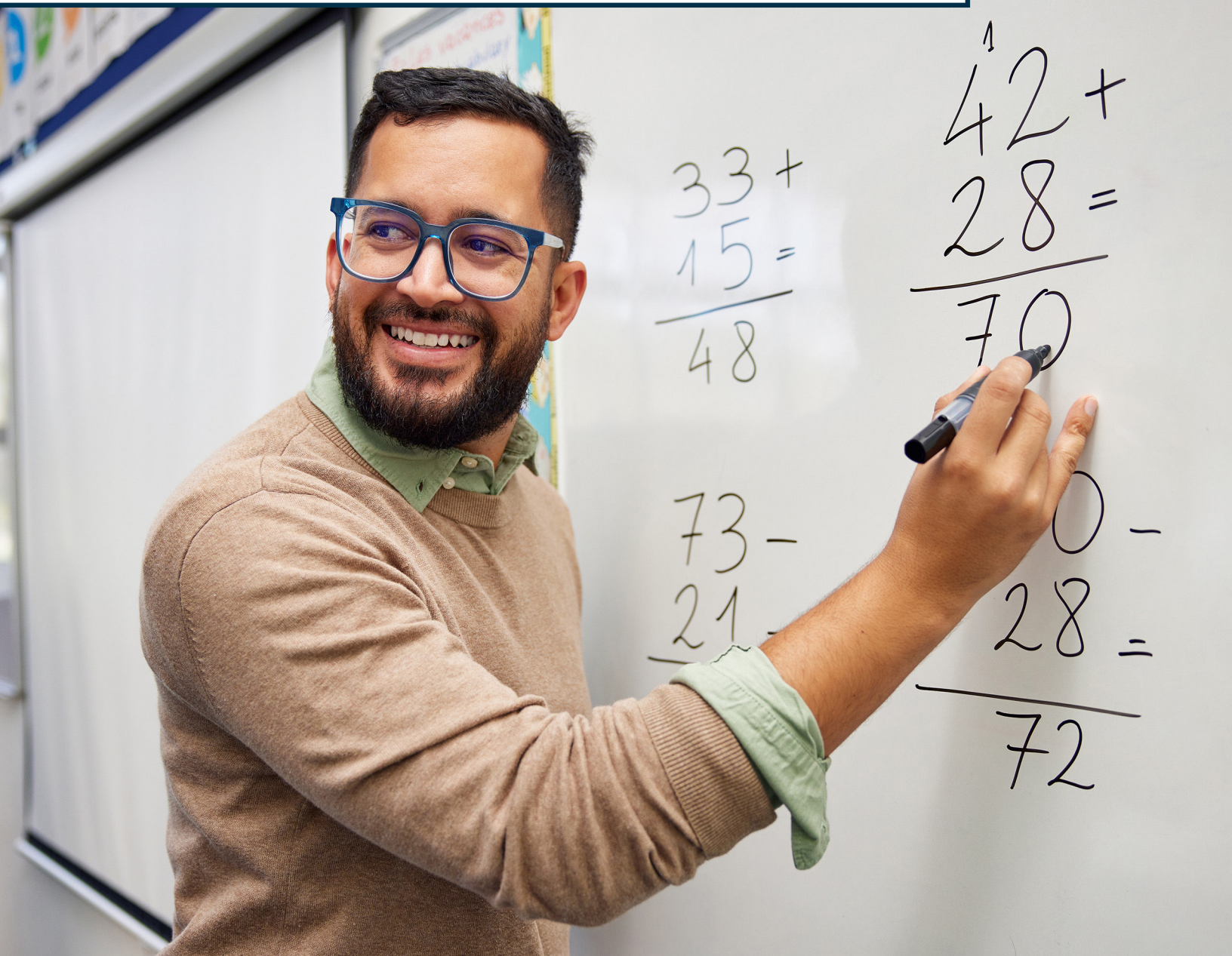
Pennsylvania Educational Leadership is an official publication of PA EDGE. Since 1996 the journal has received numerous awards from the international Association for Supervision and Curriculum Development. These awards include "best affiliate journal," "outstanding affiliate article" (multiple times), and "outstanding affiliate journal."

TABLE OF CONTENTS

MANUSCRIPTS

The Relationship Between a Professional Development Model and Teacher Self-Efficacy in the Secondary Mathematics Classroom

Christopher J. Caruso, Ed.D.
Karim L. Medico, Ed.D.



ABSTRACT

In this study, we examined the influence of professional development (PD) models on the self-efficacy of secondary-level mathematics teachers and explored implications for school leadership decision-making. This quantitative, causal-comparative study used a self-reported survey design to examine teacher self-efficacy in relation to four PD models. Andragogy, an adult learner-focused theory (Taylor & Kroth, 2009), served as the theoretical framework guiding the research. Participants included public school secondary mathematics teachers in Pennsylvania (n = 71). Teachers' self-efficacy following their most recent learning activity related to instructional practices or student engagement was the focus. The results indicated no significant differences in the self-efficacy subscales of Efficacy in Instructional Practices or Efficacy in Student Engagement based on PD model. Although statistical significance was not found, the data yielded important insights for school leaders seeking to design impactful PD aligned with adult learning theory and teacher needs.

Keywords: professional development, self-efficacy, secondary mathematics

The Relationship Between a Professional Development Model and Teacher Self-Efficacy in the Secondary Mathematics Classroom

Teacher efficacy has substantial implications in contemporary education. Research has shown that this construct is associated with characteristics such as teacher behaviors in the classroom, student achievement, student self-efficacy, lesson planning, and teacher persistence (Tschannen-Moran & Woolfolk Hoy, 2001). Researchers agree that enhancing these characteristics can be achieved through a process of teacher professional development (PD) (Kennedy, 2016; Patton et al., 2015). In the literature, PD is often used synonymously with other terms, such as in-service or staff development, and it can be delivered in a variety of models (Brown & Militello, 2016).

A meta-analysis by Morris et al. (2017) investigated the characteristics of PD experiences that lead to high levels of teacher self-efficacy, prompting questions about whether PD can be intentionally designed to enhance self-efficacy and how the mode of delivery, such as workshops, web-based formats, independent learning, or professional learning communities (PLCs), may influence its effectiveness. Although prior studies have documented the challenges teachers face in transferring learning to classroom practice (Burridge & Carpenter, 2013) and the positive impact of strong self-efficacy on teaching outcomes (Powers et al., 2016), research remains limited in examining how different PD delivery models may shape the development of teacher self-efficacy, despite some evidence suggesting PD can support its growth (Whitworth & Chiu, 2015).

Research highlights the problem that PD is not consistently evoking positive changes in teachers' instructional styles, attitudes, beliefs, or behaviors (Desimone & Garet, 2015). This is especially true when examining outcomes across delivery models. As school leaders are responsible for planning effective PD experiences, it is critical to examine whether certain PD models are more likely to foster self-efficacy in teachers, especially in subjects like mathematics where conceptual instruction is complex. Understanding the link between PD delivery and teacher self-efficacy offers valuable guidance for leadership teams seeking to improve instructional quality and student outcomes.

Literature Review

Adult Learning Theory

Knowles (1980, 1984a, 1984b) explored the concepts related to adult learning (andragogy) which grounded this research. Knowles (1984a) identified five assumptions regarding the adult learner:

self-concept, adult learner experience, readiness to learn, orientation to learning, and motivation to learn. The assumptions focus on maturation during the learning process as adults move towards independence, acquire knowledge, apply learning, problem-solve, and gain an internal desire to learn (Smith, 2002).

Additionally, Knowles (1984a) articulated four principles of andragogy. The principles highlighted the need for adults to be involved in the planning of learning experiences, while providing problem-solving opportunities to learn from mistakes and recognize the pertinence of the activities to their jobs. This learner-focused theory (Taylor & Kroth, 2009), andragogy, served as the theoretical lens through which the findings were analyzed. Essential to this theory is that adults feel "accepted, respected, and supported" (Knowles, 1980, p. 47). The core tenets involve adults' desires to be self-directed in their learning through experience and providing adults with autonomy over a modality of learning to seek a relevant, immediate application (Arghode et al., 2017).

Teacher Professional Development

Teacher PD activities often are research-based and implemented while considering the vision of an educational organization (Siko & Hess, 2014). Although there are numerous ways to deliver these activities (Darling-Hammond et al., 2017), most scholars agree that effective, high-quality implementation centers around four important factors: relevance to teaching practices, opportunities for teacher collaboration, a teacher-driven approach, and sustainability (Desimone & Garet, 2015; Patton et al., 2015; Pella, 2015; Superfine & Li, 2014; Whitworth & Chiu, 2015). The purposeful selection of teacher learning activities that are linked to their practices increases the likelihood that teachers will obtain new knowledge that transfers into instruction (Patton et al., 2015). Evidence in the literature suggests that promoting collaboration as a component of a learning experience for teachers adds a social dynamic that leads to sustainable learning communities (Matherson & Windle, 2017). It is essential to consider not only what teachers can do as a result of PD, but also their own perceptions of their capabilities to meet the goals of the experience. This concept is self-efficacy (Bandura, 1997).

Teacher Self-Efficacy

The idea of teacher self-efficacy encompasses more than just the ability to develop and implement lesson plans. This concept necessitates awareness of a variety of teachers' responsibilities, such as improving student achievement, motivating students, managing the classroom, and managing their levels of stress (Guskey, 2002; Powers et al., 2016). Teachers are preparing their students for a world that demands critical thinking and problem solving (Wiliam, 2016). Educators must reflect on the appropriate ways to prepare students for both high-stakes exams and their post-secondary endeavors. Tschannen-Moran & Hoy (2001) noted, "teachers' sense of efficacy is an idea that neither researchers nor practitioners can afford to ignore" (p. 803). Morris et al. (2017) further indicated how the literature is lacking in the empirical data needed to decipher the development of teacher self-efficacy.

Method

This quantitative, causal-comparative study examined the difference in self-efficacy of secondary-level mathematics teachers based on a PD model. A purposive sample of full-time secondary-level mathematics teachers who provide instruction in a public school in Pennsylvania were invited to participate. Teachers were given an online survey to measure self-efficacy following the most recent PD activity related to instructional practices or student engagement.

The independent variable (IV) was the PD model, categorized into four groups: workshop, web-based, continuing education, and professional learning community (PLC). These models were selected

due to their prevalence in school districts and representation of varying levels of teacher collaboration, delivery format, and engagement with content. Workshops represent traditional, often one-time sessions; web-based PD includes asynchronous or synchronous online training; continuing education refers to formal coursework for credit; and PLCs represent ongoing, collaborative, job-embedded learning.

The dependent variable (DV) was teacher self-efficacy as measured by sections of the Teachers' Sense of Efficacy Scale (TSES) developed by Tschannen-Moran & Hoy (2001). The questionnaire was divided into five parts: (1) employment status and indication of most recent PD delivery model; (2) Efficacy in Instructional Strategies subscales; (3) Efficacy in Student Engagement subscales; (4) reflection questions; and (5) demographics. The guiding research question was: What is the difference in self-efficacy of secondary-level mathematics teachers based on a PD model?

Results

The sample consisted of 71 participants, with 30% identifying as male (n = 21) and 69% as female (n = 49). All participants were full-time secondary mathematics teachers in Pennsylvania public schools. Respondents indicated the mode of delivery of PD that described their most recent experience related to instructional practices or student engagement.

Table 1 summarizes the frequencies and percentages of the PD delivery models reported by participants.

Table 1

Frequencies of Professional Development Models

Model	Frequency	Percent
Workshop	19	26.8
Web-Based	8	11.3
Continuing Education	15	21.1
Professional Learning Community	29	40.8
Total	71	100

Participants also reported their years of teaching experience. The majority had fewer than 15 years in the classroom. The most common range was 11 to 15 years (28.2%), while 4.2% of respondents reported more than 30 years of experience. The data are summarized in Table 2.

Table 2

Frequencies of Years of Experience

Years of Experience	Frequency	Percent
0-5 years	10	14.1
6-10 years	8	11.3
11-15 years	20	28.2
16-20 years	11	15.5
21-25 years	12	16.9
26-30 years	7	9.9
30+ years	3	4.2
Total	71	100

Figure 1

Distributions of Mean IS Scores Based on the Four Professional Development Models

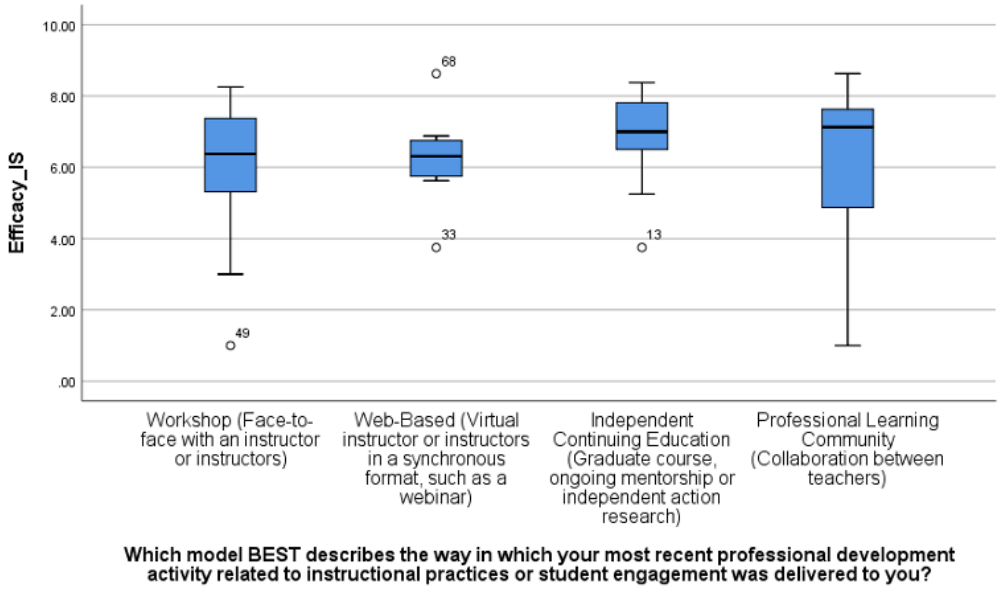
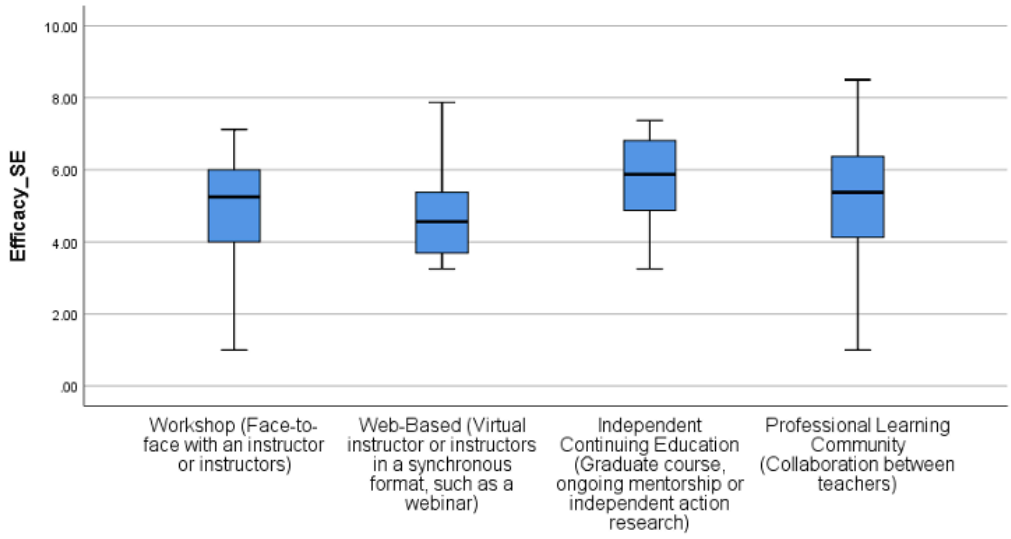


Figure 2

Distributions of Mean SE Scores Based on the Four Professional Development Models



Participants were also asked to reflect on their most recent PD experience. Approximately 54% indicated that the PD delivery model influenced their instructional practices. However, 49% reported that a different delivery model may have been more beneficial than the one they experienced. Overall, the findings indicate that no statistically significant relationship was found between the delivery model of professional development and teacher self-efficacy in either instructional strategies or student engagement.

Discussion

The results of this study suggest that the delivery model of PD does not significantly affect the self-efficacy of secondary mathematics teachers. Despite using different models, each with distinct theoretical connections to adult learning, none were linked to notably higher efficacy scores. This reinforces the idea that how PD is delivered may matter less than what is delivered and whether that content aligns with adult learning principles. The study supports the integration of andragogical practices into PD design. For example:

1. Workshops support content acquisition and educational leadership (Naizer et al., 2017),
2. Web-based PD enables self-directed learning (Bates et al., 2018),
3. Continuing education ensures relevance to instructional practices (Mills, 2011),
4. PLCs promote sustained collaboration (Gee & Whaley, 2016).

Teachers reported moderate levels of self-efficacy overall, with lower confidence in student engagement than instructional practices. These outcomes suggest PD experiences may not be fully aligned with teachers' needs or adult learning principles, limiting their impact.

Limitations

Several limitations may have influenced the results of this study. First, the voluntary nature of participation may have introduced self-selection bias, as teachers who chose to participate could have had stronger opinions or experiences related to professional development. Additionally, the study focused exclusively on secondary-level mathematics teachers in Pennsylvania, which limits the generalizability of the findings to other subjects, grade levels, or geographic regions.

The small sample size and concentration within a single state further restrict the external validity of the results. Moreover, most respondents (64%) indicated that their most recent PD experience was selected by an administrator rather than self-chosen. This lack of teacher autonomy in PD selection may have influenced perceptions of its relevance and effectiveness, potentially impacting self-efficacy outcomes.

Finally, the study did not collect data on school demographics or the level of administrative support, both of which may play a significant role in shaping teachers' self-efficacy. These unmeasured factors represent additional variables that could have influenced the results and should be considered in future research.

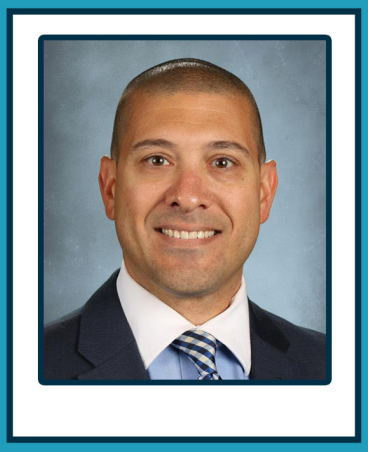
Implications and Recommendations for School Leaders

Given the critical role of professional development in shaping teacher growth and student achievement, school leaders must take a deliberate and strategic approach to the design and implementation of PD. This study underscores the importance of integrating adult learning principles into PD experiences to enhance teacher self-efficacy.

School leaders are encouraged to co-design PD experiences with teachers to foster autonomy, relevance, and engagement. When teachers have a voice in their learning opportunities, the result is greater ownership and buy-in, which in turn increases the likelihood of successful implementation. To maximize effectiveness, PD experiences should be grounded in andragogical principles by ensuring that the content is immediately relevant to daily instructional practices, problem-based, collaborative, and respectful of adult learners' experiences and preferences.

Furthermore, a balanced approach to PD that includes both required learning experiences and teacher-selected opportunities can strengthen professional engagement. Leaders should also make intentional efforts to gather teacher feedback following PD to assess its impact on instructional practice and self-efficacy, using this input to refine future offerings.

Finally, it is important to differentiate PD based on teaching experience. Early-career educators may benefit from structured support, while veteran teachers may prefer more autonomy and opportunities for leadership within learning communities. By aligning PD with teachers' evolving needs, school leaders can better support instructional quality and student success.



DR. CHRISTOPHER J. CARUSO

Dr. Christopher J. Caruso serves as the principal of Honesdale High School and is also an adjunct instructor at Wilkes University and Marywood University. He has over 20 years of experience in education, with 10 of those years serving as a middle school and high school mathematics teacher. He currently specializes in instructional leadership, teacher professional development, and professional learning communities, where a focus is placed on moving learning forward for students. He obtained a Doctor of Education degree from Wilkes University and resides in Lakeville, PA.

To reach Christopher, email him at: ccaruso@whsdk12.com.

DR. KARIM L. MEDICO

Dr. Karim L. Medico serves as an Associate Professor and Chair of the Educational Leadership Doctoral Program at Wilkes University. With more than 20 years in K-20 classroom environments, she prides herself in being both a practitioner and researcher with a contagious passion for effective teaching of mathematics and for inspiring leadership to support student learning in every math classroom. As an international mathematics consultant, she shares this passion for teaching and learning mathematics through targeted professional development workshops with K-12 classroom teachers and leaders worldwide.

References

Arghode, V., Brieger, E. W., & McLean, G. N. (2017). Adult learning theories: Implications for online instruction. *European Journal of Training and Development, 41*(7), 593-609. https://doi.org/10.1108/EJTD-02-2017-0014

Bandura, A. (1993). Perceived self-efficacy in cognitive development and functioning. *Educational Psychologist, 28*(2), 117-148.

Bandura, A. (1994). Self-efficacy. In V. S. Ramachaudran (Ed.), *Encyclopedia of human behavior* (Vol. 4, pp. 71-81). Academic Press.

Bandura, A. (1997). *Self-efficacy: The exercise of control.* W. H. Freeman.

Bandura, A. (2001). Social cognitive theory: An agentic perspective. *Annual Review of Psychology, 52,* 1-26. https://doi.org/10.1146/annurev.psych.52.1.1

Bates, M. S., Phalen, L., & Moran, C. (2018). Understanding teacher professional learning through cyber research. *Educational Technology, Research and Development, 66*(2), 385-402. https://doi.org/10.1007/s11423-017-9553-y

Brown, C., & Militello. (2016). Principals' perceptions of effective professional development in schools. *Journal of Educational Administration, 54(*6), 703-726. https://doi.org/10.1108/JEA-09-2014-0109

Burridge, P., & Carpenter, C. (2013). Expanding pedagogical horizons: A case study of teacher professional development. *Australian Journal of Teacher Education, 38*(9), 10-24.

Darling-Hammond, L., Hyler, M. E., & Gardner, M. (2017). *Effective teacher professional development.* Learning Policy Institute. https://learningpolicyinstitute.org/product/effective-teacher-professional-development-report

Desimone, L. M., & Garet, M. S. (2015). Best practices in teachers' professional development in the United States. *Psychology, Society and Education, 7*(3), 252-263.

Dixon, F. A., Yssel, N., McConnell, J. M., & Hardin, T. (2014). Differentiated instruction, professional development, and teacher efficacy. *Journal for the Education of the Gifted, 37*(2), 111-127.

Edge, K., Reynolds, R., & O'Toole, M. (2015). Contextual complexity: The professional learning experiences of seven classroom teachers when engaged in "quality teaching." *Cogent Education, 2*(1). https://doi.org10.1080/2331186X.2015.1120002

Gee, D., & Whaley, J. (2016). Learning together: Practice-centered professional development to enhance mathematics instruction. *Mathematics Teacher Education and Development, 18*(1), 87-99.

Guskey, T. R. (2002). Professional development and teacher change. *Teachers and Teaching: Theory and Practice, 8*(3), 381-391. http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.473.2693&rep=rep1&type=pdf

Hess, A. N. (2016). A case study of job-embedded learning. *Portal: Libraries and the Academy, 16*(2), 327-347.

Kennedy, M. M. (2016). How does professional development improve teaching? *Review of Educational Research, 86*(4), 945-980.

Knowles, M. S. (1980). *The modern practice of adult education: From andragogy to pedagogy.* Associated Press.

Knowles, M. S. (1984a). *Andragogy in action.* Jossey-Bass.

Knowles, M. S. (1984b). *The adult learner: A neglected species* (3rd ed.). Gulf Publishing.

Knowles, M. S., Holton III, E. F., & Swanson, R. A. (2015). *The adult learner: The definitive classic in adult education and human resource development* (8th ed.). Routledge.

Makovec, D. (2018). The teacher's role and professional development. *International Journal of Cognitive Research in Science, Engineering and Education, 6*(2), 33-46. https://doi.org/10.5937/ijcrsee1802033M

Matherson, L., & Windle, T. M. (2017). What do teachers want from their professional development? Four emerging themes. *Delta Kappa Gamma Bulletin, 83*(3), 28-32.

Mills, G. E. (2011). *Action research: A guide for the teacher researcher* (4th ed.). Pearson.

Morris, D. B., Usher, E. L., & Chen, J. A. (2017). *Reconceptualizing the sources of teaching self-efficacy: A critical review of emerging literature. Educational Psychology Review, 29*(4), 795-833. https://doi.org/10.1007/s10648-016-9378-y

Naizer, G., Sinclair, B., & Szabo, S. (2017). Examining the sustainability of effective professional development using a workshop design. *Delta Kappa Gamma Bulletin, 83*(5), 37-48.

Patton, K., Parker, M., & Tannehill, D. (2015). Helping teachers help themselves: Professional development that makes a difference. *National Association of Secondary School Principals Bulletin, 99*(1), 26-42. https://doi.org/10.1177/0192636515576040

Pella, S. (2015). Pedagogical reasoning and action: Affordances of practice-based teacher professional development. *Teacher Education Quarterly, 42*(3), 81-101.

Powers, S., Kaniuka, T., Phillips, B., & Cain, B. (2016). The impact of teacher-lead professional development programs on the self-efficacy of veteran teachers. *Journal of Research Initiatives, 2*(1), 1-21. http://digitalcommons.uncfsu.edu/jri/vol2/iss1/16

Reeve, J., & Cheon, S. H. (2015). Teachers become more autonomy supportive after they believe it is easy to do. *Psychology of Sport and Exercise, 22*, 178-189.

Siko, J. P., & Hess, A. N. (2014). Win-win professional development: Providing meaningful professional development while meeting the needs of all stakeholders. *TechTrends, 58*(6), 99-108. https://doi.org/10.1007/s11528-014-0809-7

Smith, M. K. (2002). Malcolm Knowles, informal adult information, self-direction and andragogy. *The Encyclopedia of Information Education.* http://infed.org/mobi/malcolm-knowles-informal-adult-education-self-direction-and-andragogy/

Superfine, A. C., & Li, W. (2014). Developing mathematical knowledge for teaching teachers: A model for the professional development of teacher educators. *Issues in Teacher Education, 23*(1), 113-132.

Taylor, B., & Kroth, M. (2009). Andragogy's transition into the future: Meta-analysis of andragogy and its search for a measurable instrument. *Journal of Adult Education, 38*(1), 1-11.

Tschannen-Moran, M., & Hoy, A. W. (2001). Teacher efficacy: Capturing an elusive construct. *Teaching and Teacher Education, 17*, 783-805.

Wake, D., & Mills, M. (2018). EdCamp: Listening to the voices of teachers. *Issues in Teacher Education, 27*(3), 90-106.

Whitworth, B. A., & Chiu, J. L. (2015). Professional development and teacher change: The missing leadership link. *Journal of Science Teacher Education, 26*(2), 121-137. https://doi.org/10.1007/s10972-014-9411-2

Wiliam, D. (2016). *Leadership for teacher learning: Creating a culture where all teachers improve so that all students succeed.* Learning Sciences International.

Yoo, J. H. (2016). The effect of professional development on teacher efficacy and teachers' self-analysis of their efficacy change. *Journal of Teacher Education for Sustainability, 18*(1), 84-94. https://doi.org/10.1515/jtes-2016-0007

Leadership for Equity:

Examining Educators' Perceptions of a Leadership Academy

Tricia Shelton, Ed.D.
Kalani Palmer, PhD

Abstract

This qualitative study explored educators' perceptions of an eight-month Leadership Academy designed to prepare equity-focused, culturally responsive school leaders. The Leadership Academy included communities of practice, cohort-based learning, and culturally responsive professional development. Six semi-structured interviews were conducted with program participants and interpretative phenomenological analysis was used to examine participant experiences reported in the interviews. The researchers identified two prominent themes that are discussed in this article: personal growth and human-centered change. Program participants reported self-awareness, self-knowledge, and a supportive collaborative effort in solving problems of practice. The results highlight the transformative potential of authentic, culturally responsive, cohort-based leadership development focused on supporting educational leaders in promoting equity in schools.

Leading for Equity: Examining Educators' Perceptions of a Leadership Academy

According to the National Center for Education Statistics (NCES) (2024a), about 15% of public-school students identify as Black/African American, compared with only 6% of teachers (NCES, 2023a) and 10% of principals (NCES, 2023b), suggesting gaps in recruitment, retention, and advancement of Black educators (Lee & Mao, 2023). In addition to limited representation, Black leaders often encounter systemic challenges such as placement in under-resourced schools and inadequate preparation for culturally responsive practices (Smith, 2025). Consequently, Black educators frequently must assume critical culturally responsive leadership, including navigating resistance to change, advocating for data-driven equity, and transforming curriculum with incomplete training (Teach Plus, 2021).

Notably, racial disparities extend beyond representation. Black high school seniors scored significantly lower than peers in mathematics and reading (NCES, 2024b; NCES, 2024c). Fortunately, research indicates these outcomes are changeable. Exposure to Black educators improves student performance (Blazar, 2021), and leadership approaches common among Black female principals, including strong family and community relationships, are associated with positive academic outcomes for all students (Jang & Alexander, 2022). Culturally responsive teaching similarly contributes to improved achievement, particularly for Black students (Blazar, 2021), highlighting the importance of classroom and school leadership in shaping student success.

A nonprofit organization in southwestern Pennsylvania developed an 8-month Leadership Academy to address the need for Black school leaders and systemic changes in schools. The cohort-based program focused on providing educators with professional development, resources, and support that will prepare them for culturally responsive, equity-focused leadership intended to aid in addressing the systemic inequities that exist in K-12 education. The program included four in-person cohort meetings each in a different state, virtual meetings, as well as collaborative problem solving, critical reading, dialogue, and reflection.

The program centered on three core elements: communities of practice, cohort-based learning, and culturally responsive professional development. Communities of practice support adult learning by enabling participants to share knowledge and collaboratively address authentic problems (Wenger et al., 2011). This aligns with andragogical principles that emphasize active learner involvement, prior experience, and practical relevance (Knowles et al., 2025). These environments foster active, authentic, and collaborative learning, while cohort-based models may further strengthen learning through mutual support and shared problem solving (Akhtar et al., 2024). When learners experience trust and connection, they are more willing to take risks and explore (Edmondson, 1999; Newman et al., 2017). Additionally, culturally responsive professional development encourages reflection, self-assessment,

connection, they are more willing to take risks and explore (Edmondson, 1999; Newman et al., 2017). Additionally, culturally responsive professional development encourages reflection, self-assessment, and deep self-exploration, often leading to a transformative learning experience (Khalifa et al., 2016; Paris, 2012). A culturally responsive, cohort-based community of practice is expected to produce positive outcomes for participants and their work; however, the pathway and timing to these outcomes are unknown.

Research Questions

The evaluation study addressed two questions: (1) How did the Leadership Academy impact participants?, and (2) How did the Leadership Academy impact participants' professional practice(s)?

Methods

Data Collection

Interviews were conducted in the final month (month 8) of the program. Only cohort members who attended all sessions of the program were invited to participate in the final interviews.

Data collection consisted of 45–60-minute semi-structured interviews which were conducted virtually via Zoom. With participant consent, each interview was recorded to aid transcription.

Interview questions were organized to uncover the impact of the program on professional learning as well as any potential changes in school practice because of the program (e.g., "How has your understanding of Black student development evolved throughout this program?", "How has this program equipped you to address systemic inequalities that impact Black students' learning experiences?"). The interview gave particular attention to four areas of growth: (1) shifts in educators' knowledge and beliefs, (2) application of learning, (3) capacity to address systemic inequities, and (4) influence on professional identity and commitments.

Participants

Twenty individuals, representing six school-based teams, completed the Leadership Academy programming. While most of the cohort (n=15) identified as Black/African American, the cohort also included individuals with Latinx/Hispanic American (n=2) and White/European American (n=3) backgrounds. Within the cohort, there were 12 females and 8 males with the following school positions: CEO, head/assistant principal, instructional coordinator, program director/assistant, operations director, program manager, and teacher. Six cohort members agreed to participate in the program evaluation (Table 1).

Table 1

Summary of Participant Demographics

Pseudonym	Gender	Race	School Role	Years of Experience
Malik	Male	Black	Program Director	29 years
Nia	Female	Black	Program Director	20 years
Jessica	Female	Black	Director of Operations	25 years
Jamal	Male	Black	Director of Operations	12 years
Darren	Male	Black	Principal	7 years
Aaliyah	Female	Black	Program Director	< 1 year (11 months)

Analysis

An interpretative phenomenological analysis (IPA) was used to explore participant experiences in the eight-month leadership cohort (Pietkiewicz & Smith, 2012). The transcripts were first reviewed as individual cases by both authors. Using highlighting and comments in Microsoft Word, both authors independently coded passages that participants described as meaningful program activities or outcomes. The authors then met to compare interpretations and reached agreement on code labels and descriptions. After conducting the within-case analysis and reaching agreement on codes, areas of overlap across cases were identified.

Findings

The external evaluators administered semi-structured interviews that highlighted significant development among the participants. Beyond the cohesive network, the participants cultivated skills that supported their emotional wellbeing and affirmed their work as Black school leaders. Within the cohort, themes of personal growth and human centered change were prominent.

Personal Growth and Self Discovery

All six participants described the Leadership Academy as a journey of self-discovery and personal growth. Many participants emphasized growth in listening and reflection through the problem-of-practice exercises, in which participants examined persistent, real-world challenges from their professional contexts through guided inquiry and peer feedback. Darren explained that interaction with moderators and cohort members "forced [him] to [slow] down," and to "[sit] down and [listen] to understand the root causes and then go through a process consistently." As a result, he shared

that "people now feel heard versus brushed off." Even though he had never intended for anyone to feel dismissed or ignored, that is what happened as he rushed through his interactions. Similarly, Nia reflected, "I think I learned more about myself through the cohort as a leader," noting that the problem-of-practice activity "really challenged [her] to be a better listener."

Readings that focused on socio-cultural perspectives challenged the cohort to take risks by interrogating inequitable systems and confronting institutional biases. Jamal described "...that one thing that evolved for [him]... [is] how much [he is] willing to put [himself] in an uncomfortable situation to be able to create the viability for the development of… young children." Malik echoed that the program "really [challenged them] to live outside of [their] comfort zone." Finally, participants reported greater awareness about their beliefs and decision-making. Jessica felt that the program "helped [her] understand the choices [she] makes." While Aaliyah shared that the program "really allowed [her] to … determine the values that [she has] as an educator…."

Human Centered Change

Every aspect of the Leadership Academy intentionally centered the experiences, needs, emotions, and voices of the leaders themselves. The work of this program encouraged the participants to recognize common struggles among the cohort. As Malik remarked, "[the program] helped me understand that I'm not living in a silo and that some of these same challenges are impacting others." Given their common perspectives, these conversations acted as a springboard for effective problem solving for individual leaders and the cohort as a whole. Darren shared "I presented a specific problem that I'm facing and that was kind of, like, I mean, a very emotional, very deep, intense experience for me, but I was able to get specific advice. Because other people shared that they had had similar experiences, I think we were all able to grow from it."

Navigating comparable experiences promoted moments of intense personal grounding and reflection for the cohort. Participants shared their thoughts and feelings without fear of being viewed as ineffective leaders. In fact, several participants noted that having these conversations with other Black leaders was especially profound. Jamal commented that the Leadership Academy created a "safe space to have honest conversations about things that we face as Black educators on a daily basis, and to kind of process thoughts in a non-judgmental space." Participants viewed one another as motivation, pushing each other to persist in their work and pursue their career goals. For Aaliyah, a novice professional, the cohort became a model for her own aspirations. She reflected, "Seeing what I could become, and the success that I could have, especially from the older people in the cohort, gave me a renewed joy in education, and it gave me a new passion."

Discussion

Relationship building is foundational to personal growth and human centered change (Dymnicki et al., 2026; Porter & Worsley, 2025). From the onset of the programming, the Leadership Academy directors prioritized strong personal connections among and within the six school-based cohort teams. This model ensured participants had an integrated support system to enact meaningful and sustainable change within their local context (Spiro & Fleming, 2025). Also, this model supports trusting relationships, which are key to supporting exploration and consequently growth (Edmondson, 1999; Newman et al., 2017).

When leadership teams are organized, facilitated, and supported intentionally, group productivity increases (Dymnicki et al., 2026; Patrick, 2022; Stricker, 2019). In this program, thoughtful routines and procedures established cohesion in the learning community. Bi-monthly cohort sessions were held in locations outside of participants' locality, which limited professional interruptions during the program sessions. This level of sustained, dedicated time promotes meaningful engagement and collaboration among conscientious school leaders (Patrick, 2022). Further, sessions began with a communal ritual, during which participants witnessed and validated shared experiences. By sharing struggles and celebrations, the group honored their resilience, reinforcing a community established in belonging and trust (Stricker, 2019).

Group diversity can be a significant asset to community building (Knowles et al., 2025; van Knippenberg, 2017). The cohort was composed of a rich blend of perspectives across roles that enhanced the community by promoting mutual respect and broadening understanding of systemic challenges. Cohort members were both encouraged and expected to contribute their expertise and insights to strengthen the collective learning environment. Distinct forms of knowledge deepen dialogue and expand problem-solving approaches (Porter & Worsley, 2025; van Knippenberg, 2017).

Lastly, cohort members maintained a strong sense of shared purpose. Participants not only recognized the value of the equity-centered focus of the Leadership Academy but also came to appreciate the power of their collective efforts. This shared commitment fosters an ongoing support network that extends into daily professional work and strengthens commitment to meaningful change within their respective contexts (Akhtar et al., 2024; Schaufeli, 2021).

Limitations

Despite the potential usefulness of these findings for practice, limitations should be noted. First, the Leadership Academy program length was brief. Thus, collecting data at the close of the program does not fully measure sustained or long-term effects. Second, participants willingly applied to the Leadership Academy, suggesting an interest in equity-focused practice. This restricts generalizability to educators who may be less inclined toward culturally responsive work. Moreover, the limited number of participants also restricts generalizability.

Implications

We found that cohort-based, culturally responsive programming can meaningfully support transformative leadership development aimed at advancing equity in schools. Central to the success of the Leadership Academy was its program-specific design of rigorous content, culturally responsive practice, and a strong professional community. The program did more than facilitate discrete skill acquisition; it cultivated critical self-reflection and professional networking. Participants were immersed in experiences that challenged assumptions, strengthened relational trust, and fostered a shared sense of responsibility for change.

The findings suggest important implications for school leadership preparation programs. Programs should intentionally create structured spaces for reflective listening and critical inquiry. Such spaces validate lived experiences while encouraging leaders to examine their own identities, beliefs, and practices. Designing programming around a clearly articulated, shared commitment to equity is also essential. When participants collectively embrace a common purpose, it deepens individual accountability, increasing the likelihood of sustained self-improvement and lasting school reform.

DR. TRICIA H. SHELTON

Dr. Tricia H. Shelton is a dedicated educator and leader with over 20 years of experience in early childhood education, school administration, and teacher preparation. She currently serves as an Assistant Professor at Slippery Rock University, where her work centers on inclusive practices and cultivating a sense of belonging in schools and communities. With a strong focus on challenging the systemic inequities affecting marginalized students and families, Dr. Shelton integrates equity and cultural responsiveness into her scholarship, teaching, and leadership.

DR. KALANI M. PALMER

Dr. Kalani M. Palmer is a Professor and Assistant Department Chair in Professional Studies in Education at Indiana University of Pennsylvania, where she teaches students enrolled in teacher preparation and advanced degree programs in education. Her research and practice focus on equity in education and supporting underrepresented students and families. She brings experience from urban schools, clinical practice, and nonprofit youth-serving organizations, grounding her work in both research and community engagement.

Akhtar, S., Gao, Y., Keshwani, A., & Neubauer, L. C. (2024). Cohort-based learning to transform learning in graduate public health: Key qualitative findings from a pilot study. *Frontiers in Education, 9*, 1457550. https://doi.org/10.3389/feduc.2024.1457550

Blazar, D. (2021). Teachers of color, culturally responsive teaching, and student outcomes: Experimental evidence from the random assignment of teachers to classes (EdWorkingPaper No. 21-501). Annenberg Institute at Brown University. https://doi.org/10.26300/jym0-wz02

Dymnicki, A. B., Lubeznik-Warner, R. P., Gillard, A., Pearson, L. B., & Wycoff, T. (2026). Community of practice enhances understanding, interest, and commitment to promoting character development in camp counselor-in-training programs. *Journal of Experiential Education, 49*(1), 192–215. https://doi.org/10.1177/10538259251385468

Edmondson, A. (1999). Psychological safety and learning behavior in work teams. *Administrative Science Quarterly, 44*(2), 350–383. https://doi.org/10.2307/2666999

Jang, S. T., & Alexander, N. A. (2022). Black women principals in American secondary schools: Quantitative evidence of the link between their leadership and student achievement. *Educational Administration Quarterly, 58*(3), 450–486. https://doi.org/10.1177/0013161X211068415

Khalifa, M. A., Gooden, M. A., & Davis, J. E. (2016). Culturally responsive school leadership: A synthesis of the literature. *Review of Educational Research, 86*(4), 1272-1311. https://doi.org/10.3102/0034654316630383

Knowles, M. S., Holton, E. F., & Robinson, P. A. (2025). The adult learner: The definitive classic in adult education and human resource development. (10th ed.), Routledge.

School Psychology, 36(4), 287–297. https://doi.org/10.1037/spq0000423

Knowles, M. S., Holton, E. F., & Robinson, P. A. (2025). *The adult learner: The definitive classic in adult education and human resource development.* (10th ed.), Routledge.

Lee, S. W., & Mao, X. (2023). Recruitment and selection of principals: A systematic review. *Educational Management Administration & Leadership, 51*(1), 6-29. https://doi.org/10.1177/1741143220969694

National Center for Education Statistics. (2023a). *Characteristics of public school teachers (Condition of Education Indicator CLR)*. U.S. Department of Education. https://nces.ed.gov/programs/coe/indicator/clr

National Center for Education Statistics. (2023b). *Characteristics of public and private school principals (Condition of Education Indicator CLS)*. U.S. Department of Education. https://nces.ed.gov/programs/coe/indicator/cls

National Center for Education Statistics. (2024a). *Racial/ethnic enrollment in public schools (Condition of Education Indicator CGE)*. U.S. Department of Education. https://nces.ed.gov/programs/coe/indicator/cge

National Center for Education Statistics. (2024b). *National Assessment of Educational Progress (NAEP): Mathematics, grade 12, Race ethnicity used to report trends, school-reported.* U.S. Department of Education. https://www.nationsreportcard.gov/

National Center for Education Statistics. (2024c). *National Assessment of Educational Progress (NAEP): Reading, grade 12, Race ethnicity used to report trends, school-reported*. U.S. Department of Education. https://www.nationsreportcard.gov/

Newman, A., Donohue, R., & Eva, N. (2017). Psychological safety: A systematic review of the literature. *Human Resource Management Review, 27*(3), 521-535. https://doi.org/10.1016/j.hrmr.2017.01.001

Paris, D. (2012). Culturally sustaining pedagogy: A needed change in stance, terminology, and practice. *Educational Researcher, 41*(3), 93–97. https://doi.org/10.3102/0013189X12441244

Patrick, S. K. (2022). Organizing schools for collaborative learning: School leadership and teachers' engagement in collaboration. *Educational Administration Quarterly, 58*(4), 638-673. https://doi-org.proxy-sru.klnpa.org/10.1177/0013161X221107628

Pietkiewicz, I. & Smith, J.A. (2012). Praktyczny przewodnik interpretacyjnej analizy fenomenologicznej w badaniach jakościowych w psychologii. *Czasopismo Psychologiczne, 18*(2), 361-369.

Porter, S. C., & Worsley, T. D. (2025). Dropping gems: How a critical community of practice supported science teacher leaders to develop resources for anti-racist science teaching. *School Science & Mathematics, 125*(5), 490–505. https://doi.org/10.1111/ssm.12616

Schaufeli, W (2021) Engaging leadership: How to promote work engagement?. *Frontiers in Psychology. 12*, 754556. https://doi.org/10.3389/fpsyg.2021.754556

Smith, P. A. (2025). Lift every voice and lead: Black men in educational leadership: Towards new theories, visions, and understandings. *The Urban Review, 57*(5), 1171-1199. https://doi.org/10.1007/s11256-025-00776-2

Spiro, J. & Fleming, P. (2025). Leadership teams make change that lasts. *Learning Professional, 46*(5), 19–21.

Stricker, J. (2019). Bringing intentionality to instructional leadership teams. *Educational Leadership, 76*(9), 56-60.

Teach Plus. (2021). *Black teachers on creating affirming school cultures.* https://teachplus.org/wp-content/uploads/2021/09/To-Be-Who-We-Are_-Black-Teachers-on-Creating-Affirming-School-Cultures.pdf

van Knippenberg D. (2017). Team innovation. *Annual Review of Organizational Psychology and Organizational Behavior, 4*, 211-233. https://doi.org/10.1146/annurev-orgpsych-032516-113240

Wenger, E., Trayner, B., & de Laat, M. (2011). *Promoting and assessing value creation in communities and networks: A conceptual framework.* Ruud de Moor Centrum, Open University of the Netherlands.

Responsible Artificial Intelligence Implementation in a Public School District

Governance-Centered Qualitative Practitioner Case Study

Susan Seiple, Ed.D.

Abstract

Hanover Public School District (HPSD) implemented a phased, governance-centered artificial intelligence (AI) initiative intended to strengthen instructional differentiation while safeguarding academic integrity and student privacy. This qualitative practitioner case study analyzes policy sequencing, professional development structures, and 256 teacher-submitted instructional artifacts across multiple AI sessions. Thematic analysis revealed five interdependent conditions for successful integration: governance clarity, required instructional application, explicit student AI literacy instruction, cross-disciplinary transfer, and iterative sustainability mechanisms. Notably, findings indicate that while AI enhances instructional efficiency, it cannot replace the uniquely human capacities and professional judgment essential to teaching. The study provides a replicable framework for school leaders to move from administrative surveillance to student metacognition by centering AI as a pedagogical scaffold rather than a standalone technology.

Responsible Artifical Intelligence Implementation in a Public School District: A Governance-Centered Qualitative Practitioner Case Study

Artificial intelligence (AI) is transforming K–12 education, requiring leaders to balance innovation with ethical responsibility. National guidance emphasizes that AI must augment professional judgment while safeguarding student privacy and equity (U.S. Department of Education, 2023). Hanover Public School District (HPSD) conceptualized AI integration as an instructional leadership initiative grounded in governance alignment, professional learning design, and differentiated instructional practice.

Literature Review

Research demonstrates AI-supported systems can enhance individualized learning when paired with human oversight (VanLehn, 2011; Holstein et al., 2019). Adaptive systems have shown measurable gains when embedded within instructional frameworks instead of used as stand-alone tools. Tomlinson (2014) frames differentiation across content, process, and product as central to meeting diverse learner needs, providing a theoretical foundation for AI-supported scaffolding. Implementation science further highlights structural readiness, leadership sequencing, and fidelity of rollout as prerequisites for sustainable innovation (Fixsen et al., 2005). Darling-Hammond et al. (2017) instruct that effective professional development requires active application, collaboration, and ongoing feedback. Finally, scholarship on AI governance stresses educator-centered design and ethical guardrails as essential to maintaining public trust (Woolf et al., 2013).

While early implementation research focused on hardware adoption (Fixsen et al., 2005), modern AI integration requires a 'hybrid-human-AI' approach that prioritizes educator agency (Molenaar, 2022). National guidance from the U.S. Department of Education (2023) further indicates the necessity of "privacy-first" governance, suggesting that school leadership must establish legal guardrails before pedagogical experimentation begins. This study aligns with these recommendations by evaluating a district-wide model that balances technical competency with ethical AI literacy (Ng et al., 2024). Collectively, this literature suggests that successful AI integration requires coordinated leadership, professional learning systems, and clear ethical frameworks.

Method

The HPSD AI Implementation Framework was developed through a collaborative administrative process. While the author conducted the formal thematic analysis for this study, the framework itself was designed and executed by a core leadership team including the Superintendent and the Technology Director. This collective oversight ensured that the "Traffic Light" heuristic and the professional

development artifacts were reviewed for both instructional alignment and operational feasibility across all grade levels.

This qualitative practitioner case study examined HPSD's districtwide AI implementation within a mid-sized Pennsylvania public school district serving elementary through high school students. The district includes diverse academic programs and a range of student readiness levels, making differentiation a central instructional priority.

Data sources included board-approved AI policy documents, district AI handbook materials, and 256 teacher-submitted instructional artifacts: 116 student AI literacy lessons, 93 AI differentiation artifacts, and 47 AI-enhanced instructional projects (HPSD, 2024; HPSD, 2025; HPSD, 2026). These artifacts were generated during four specific AI professional development sessions and represent a broad cross-section of K–12 instructional planning. The analysis prioritized artifacts that demonstrated adherence to the district's FERPA-compliant and PII anonymization guardrails while effectively supporting Tomlinson's (2014) differentiation framework.

By evaluating the pedagogical depth and the "human-in-the-loop" engagement required by each artifact, the study identifies how specific leadership structures influenced classroom-level innovation.

Artifact selection followed a purposive sampling strategy, identifying teacher submissions that explicitly utilized the "AI Traffic Light" heuristic or cited specific differentiation strategies from the district handbook (Appendix A). To ensure the reliability of the thematic findings, a member-checking process was employed where district-level administrators on the implementation team reviewed the final themes to confirm they accurately reflected the professional development outcomes and district-wide instructional shifts. Artifacts were coded using a two-cycle thematic analysis process. First-cycle coding identified recurring references to governance clarity, differentiation practices, student guardrails, and instructional experimentation. Second-cycle coding clustered patterns into broader themes aligned with implementation constructs: leadership sequencing, instructional transfer, ethical reinforcement, cross-disciplinary integration, and sustainability (Fixsen et al., 2005). Triangulation across policy language, professional development expectations, and classroom artifacts enhanced analytic rigor and trustworthiness.

Findings

Theme 1: Governance Sequencing

Administrative preparation and board policy approval preceded classroom experimentation. Policy language prioritized privacy protections and instructional purpose, reducing ambiguity and fostering readiness. To ensure ethical compliance, the district's governance framework established three non-negotiable technical guardrails: strict adherence to platform-specific age requirements, the exclusive use of FERPA-compliant tools such as NotebookLM and Gemini, and the mandatory anonymization of all student data prior to any AI-assisted processing. These protocols shifted the focus from simple tool adoption to a comprehensive data-privacy model. This "privacy-first" governance model aligns with recent national guidance from the U.S. Department of Education (2023), which advocates for "data privacy by design" as a prerequisite for equitable AI implementation. By restricting experimentation to a walled-garden environment, the district ensured that technological capability did not supersede the legal and ethical protections afforded to student data (HPSD, 2026).

Theme 2: Professional Development with Required Application

Professional development (PD) at HPSD was intentionally structured around immediate classroom application rather than theoretical or passive overviews. During each of the four primary sessions, K–12 faculty were not merely shown AI capabilities; they were required to produce a specific, usable instructional artifact—such as a "Traffic Light" assignment or a differentiated lesson scaffold—prior to the conclusion of the workshop. This requirement for active application directly aligns with the essential elements of effective professional development identified by Darling-Hammond et al. (2017), who

posit that PD is most impactful when it is content-focused, incorporates active learning, and supports collaboration within a specific job context.

Across 93 differentiation submissions, teachers demonstrated scaffolded supports, activating strategies, review games, and adaptive grouping structures. The sheer volume and variety of these artifacts suggest that the "hands-on" requirement functioned as a critical structural driver, significantly reducing the gap between initial training exposure and actual classroom enactment. While Fixsen et al. (2005) stress the structural "implementation drivers" and performance assessments needed for successful systemic change, Chiu (2023) highlights the psychological necessity of "competence" and "autonomy" in the transition to AI-supported teaching. By moving from passive observation to active creation, HPSD fostered the self-efficacy required for teachers to feel both competent in the technology and autonomous in its pedagogical application. Consequently, the PD sessions transitioned from administrative mandates into "innovation labs" where educators could safely iterate on AI-generated content to meet the diverse needs of their students.

Theme 3: Student AI Literacy Structures

Analysis of 116 student-training lessons revealed explicit instruction in responsible AI us. Central to this instruction was the "AI Traffic Light" system, integrated into the district AI Handbook, which served as a visual scaffold to signal when and how AI could be utilized for specific tasks. One teacher wrote, "I am going to walk them through asking AI for a problem-solving process… not actually asking AI for the answer." Another indicated students would be "asked not to use AI for the summarizing strategy quiz." These excerpts reflect proactive ethical framing. The "Traffic Light" heuristic serves as more than a compliance measure; it functions as a framework for building comprehensive AI literacy. As Ng et al. (2024) observe, K–12 AI literacy must extend beyond technical operation to include the metacognitive ability to evaluate AI outputs critically. By requiring students to justify their use of AI, the district centers educator agency and ensures that students remain the primary architects of their own learning (Molenaar, 2022).

Theme 4: Cross-Disciplinary Instructional Transfer

The thematic analysis of the additional 47 artifacts revealed that AI integration transcended the typical boundaries of "tech-heavy" STEM subjects. Significant evidence of transfer was found in Physical Education, where AI generated adaptive fitness plans; in Fine Arts, through the creation of style-specific visual prompts; and in Career and Technical Education (CTE), where it supported resume tailoring. This cross-disciplinary movement suggests that when AI is framed as a pedagogical scaffold rather than a digital tool, it achieves higher levels of collective efficacy. By normalizing AI use across diverse departments, including literacy and science, the district moved away from isolated experimentation toward a unified instructional language.

Theme 5: Sustainability Through Iteration

Long-term institutionalization of AI was maintained through a structured feedback loop between practitioners and leadership. Data from 256 cumulative artifacts and subsequent teacher surveys allowed the district to refine the AI Handbook in real-time. For instance, initial feedback regarding "prompt fatigue" led to the development of district-approved "Prompt Libraries" in later professional development sessions. This iterative process aligns with the "Full Implementation" stage of Implementation Science, where the innovation is no longer a novelty but a core component of the district's instructional infrastructure (Fixsen et al., 2005). This cycle ensures that as AI technology evolves, the district's governance and pedagogical frameworks evolve in tandem.

Ultimately, as this iterative cycle progressed, a vital qualitative theme emerged regarding the

fundamental role of the educator. As the district increasingly integrated AI into instructional and operational systems, leadership found it imperative to maintain clarity about the distinction between technological capability and human capacity. The artifact analysis demonstrated that while AI can effectively support data analysis, instructional differentiation, and operational efficiency, it does not—and will never—possess inherently human qualities, such as a heart, a soul, or a spirit. Furthermore, AI lacks the ability to exercise professional judgment grounded in the nuanced, lived experience of the classroom. The district's implementation framework ultimately reinforced that these uniquely human capacities remain absolutely essential to teaching, learning, and leadership, positioning educator agency as the irreplaceable center of AI-supported environments (Appendix B).

Discussion

Across themes, findings suggest that AI implementation functioned as a systems-level reform instead of a discrete technology initiative. Governance sequencing established structural legitimacy, which in turn created conditions for meaningful professional learning. The requirement that teachers submit 256 cumulative artifacts indicates movement beyond exploratory use toward instructional normalization. This progression reflects implementation fidelity, a key determinant of innovation sustainability (Fixsen et al., 2005).

Importantly, the artifact data reveal that differentiation was not superficial. Teachers embedded AI into activating strategies, scaffolded reading supports, adaptive grouping structures, and formative review activities. These patterns align with Tomlinson's (2014) differentiation framework, suggesting that AI tools were integrated within established pedagogical models instead of replacing them. Such alignment mitigates the risk of technological displacement and instead positions AI as an augmentation mechanism.

Student AI literacy lessons further demonstrate a shift from reactive discipline toward proactive ethical instruction. Rather than prohibiting AI outright, educators explicitly modeled acceptable prompting, clarified assessment boundaries, and accentuated transparency. This proactive stance reflects educator-centered governance principles (Woolf et al., 2013) and may contribute to long-term cultural normalization of responsible AI use.

Finally, iterative refinement cycles suggest that AI integration entered an institutionalization phase. Feedback-informed professional development adjustments indicate adaptive leadership instead of static policy enforcement. Collectively, these findings support the conclusion that sustainable AI implementation requires coordinated governance, structured capacity-building, ethical clarity, and continuous improvement processes.
From an implementation science perspective, the progression observed in HPSD reflects movement across exploration, installation, and initial implementation stages toward early institutionalization (Fixsen et al., 2005). The artifact requirement functioned as a structural driver of fidelity, reducing the common implementation gap between professional development exposure and classroom enactment. Rather than relying on voluntary adoption, leadership embedded accountability mechanisms that normalized experimentation while maintaining guardrails.

The breadth of artifact submissions also suggests collective efficacy development among educators. When AI-supported differentiation appeared across grade levels and content areas, it signaled shared instructional ownership instead of isolated innovation. This distributed adoption pattern is critical for sustainability, as reforms confined to early adopters often dissipate when leadership attention shifts.

Ultimately, the explicit integration of student AI literacy instruction reframes AI governance as a pedagogical responsibility instead of a compliance issue. By teaching students how and when to use AI appropriately, educators shifted the locus of control from surveillance to metacognition. Such positioning aligns with contemporary perspectives on digital citizenship and reinforces AI as a cognitive support tool embedded within existing academic integrity norms.

Collectively, the findings indicate that AI implementation success may depend less on tool sophistication and more on alignment between governance, pedagogy, and organizational learning structures. This alignment provides a replicable model for districts seeking to integrate emerging technologies without destabilizing instructional coherence.

The integration of 256 artifacts supports the conclusion that AI implementation was systemic and instructionally grounded. Governance sequencing aligned with readiness principles (Fixsen et al., 2005), while deliverable-based professional learning supported application fidelity (Darling-Hammond et al., 2017). The findings reinforce research suggesting that AI enhances differentiation when integrated alongside human expertise (VanLehn, 2011).

For Pennsylvania districts, this case reinforces the importance of aligning AI adoption with established differentiation priorities and maintaining explicit ethical guardrails. District leaders should prioritize structured professional development with required application, transparent communication with stakeholders, and iterative feedback mechanisms.

Limitations

This study reflects a single-district context and relies primarily on artifact analysis instead of longitudinal student outcome data. Future research should examine achievement trends over time and compare implementation models across districts to strengthen generalizability.

Conclusion

The integration of generative artificial intelligence at Hanover Public School District (HPSD) demonstrates that systemic change in the digital age requires a shift from technical procurement to pedagogical governance. By sequencing policy before practice, HPSD established a "Privacy-First" environment where FERPA-compliant tools and mandatory data anonymization provided the psychological safety necessary for teacher experimentation. The analysis of 256 instructional artifacts confirms that AI is most effective when it is not treated as a standalone technology, but as a scaffold for Tomlinson's (2014) differentiation. Whether through the visual heuristic of the "AI Traffic Light" or the development of cross-disciplinary "Prompt Libraries," the district moved the locus of control from administrative surveillance to student metacognition.

For Pennsylvania educational leaders, the HPSD model offers a replicable framework: ground AI in existing board policy, mandate application-based professional development, and maintain sustainability through iterative feedback loops. Ultimately, the success of AI in schools depends not on the sophistication of the algorithms, but on the strength of the human systems—governance, pedagogy, and collective efficacy—that direct their use. As AI continues to evolve, educational leadership must maintain strict clarity regarding the distinction between technological capability and human capacity. While AI can support robust analysis and differentiation, it will never possess a heart, a soul, or a spirit. It cannot exercise professional judgment grounded in the lived experience of the classroom. Therefore, any systemic AI implementation must remain fiercely committed to positioning educator agency as the irreplaceable center of student learning.

DR. SUSAN SEIPLE

Dr. Susan Seiple serves as the Assistant to the Superintendent at Hanover Public School District in Hanover, PA. In this role, she oversees curriculum, instruction, assessment, and professional development. Her work focuses on bridging the gap between board-level policy and classroom-level innovation, with a specific emphasis on the ethical integration of generative AI to support differentiated instruction. Dr. Seiple is a dedicated practitioner-researcher committed to developing scalable frameworks that prioritize student privacy and pedagogical integrity in the digital age.

References

Chiu, T. K. F. (2023). Applying self-determination theory to explain the transition to online/AI teaching. *Educational Technology Research and Development, 71*(2), 599–619.

Darling-Hammond, L., Hyler, M. E., & Gardner, M. (2017). *Effective professional development.* Learning Policy Institute. https://doi.org/10.54300/122.311

Fixsen, D. L., Naoom, S. F., Blase, K. A., Friedman, R. M., & Wallace, F. (2005). *Implementation research: A synthesis of the literature.* University of South Florida.

Hanover Public School District. (2024). *AI traffic light protocol: A tiered framework for student AI use* [District report].

Hanover Public School District. (2025). *Instructional handbook for generative artificial intelligence integration* [District report].

Hanover Public School District. (2026). *Data privacy and PII anonymization protocols for generative AI* [District report].

Holstein, K., McLaren, B. M., & Aleven, V. (2019). Designing for complementarity: Teacher and student needs for orchestration support in AI-enhanced classrooms. *In Artificial Intelligence in Education* (pp. 157-171). Springer. https://doi.org/10.1007/978-3-030-23204-7_14

Molenaar, I. (2022). Towards hybrid-human-AI learning technologies. *European Journal of Education, 57*(4), 632–645. https://doi.org/10.1111/ejed.12527

Ng, D. T. K., Leung, J. K. L., Chu, S. K. W., & Qiao, M. S. (2024). A review of AI literacy in K–12 education. *Computers and Education: Artificial Intelligence, 2*, 100064. https://doi.org/10.1016/j.caeai.2021.100064

Tomlinson, C. A. (2014). *The differentiated classroom: Responding to the needs of all learners* (2nd ed.). ASCD.

U.S. Department of Education, Office of Educational Technology. (2023). *Artificial intelligence and the future of teaching and learning: Insights and recommendations.*

VanLehn, K. (2011). The relative effectiveness of human tutoring, intelligent tutoring systems, and other tutoring systems. *Educational Psychologist, 46*(4), 197–221. https://doi.org/10.1080/00461520.2011.611369

Woolf, B. P., Burleson, W., Celik, O., Arroyo, I., Dragon, T., Cooper, D., & Picard, R. (2013). AI grand challenges for education. *AI Magazine, 34*(4), 66–84. https://doi.org/10.1609/aimag.v34i4.2490

Appendix A

AI Traffic Light Protocol for Student Use at Hanover Public School District

Options	Description	Suitable Assignments
RED LIGHT	Collaboration with AI software is not permitted on this assignment.	Traditional quizzes and exams designed to assess individual knowledge; Short-answer questions that require personal reflections or opinion; Activities that are part of a larger assessment, where individual contributions need to be isolated for fair evaluation.
YELLOW LIGHT	Students are required to obtain permission from their teacher before collaborating with AI on this activity.	Long-term projects that require research and synthesis of information; Group activities where individual contributions are part of a collective grade; Case studies or problem-solving tasks that could benefit from multiple perspectives.
GREEN LIGHT	Students are encouraged to use AI software for this activity and must be prepared to discuss how they plan to use these tools and how they will indicate their use in their work.	Creative writing assignments where AI can serve as a brainstorming tool; Research projects that involve gathering and analyzing large sets of data; Activities that encourage innovation and exploration, such as coding projects or design tasks.

Note. This table outlines the tiered instructional framework used to communicate AI expectations to students.

Appendix B

Key Thematic Findings of AI Implementation

Theme	Representative Evidence	Implementation Significance
Governance Sequencing	Board-approved AI policy; FERPA-compliant Gemini/NotebookLM; Mandatory PII Anonymization protocols.	Establishes legal and ethical guardrails prior to instructional experimentation.
Professional Development	256 artifacts; Required application in lesson planning; Differentiated PD cohorts.	Bridges the gap between theoretical tool knowledge and classroom practice.
Student AI Literacy	AI Traffic Light Heuristic; Explicit instruction on prompt engineering; Ethics modules.	Shifts the focus from surveillance to student metacognition and responsibility.
Cross-Disciplinary Transfer	AI-generated fitness plans (PE); Style-specific prompts (Arts); Resume tailoring (CTE).	Demonstrates the adaptability of AI as a pedagogical scaffold across all content areas.
Sustainability & Iteration	Iterative handbook revisions; Prompt Libraries; Multi-session artifact analysis.	Ensures long-term institutionalization through continuous feedback and refinement.

Note. This table synthesizes the five primary themes identified through the qualitative analysis of district artifacts.