TENNESSEE EDUCATIONAL LEADERSHIP A Peer-Reviewed Journal of the TASCD

Tennessee Educational Leadership (TEL) is a peer-reviewed journal intended to communicate information, ideas, theoretical formulations, and research findings related to leadership, supervision, curriculum, and instruction. Starting with **Volume 43**, the **TEL** will appear in an online format with national open availability. Distribution will include Tennessee Association for Supervision and Curriculum Development (TASCD) members and others with an interest in supervision/leadership, curriculum development, and instruction at both the university and schoolbased levels. The journal is nonthematic and aims to promote discussion of a broad range of concepts, theories, issues, and dissemination of the knowledge base for professionals in education.

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Message from TASCD Executive Director Renee Meeks

Greetings,

I am both honored and excited to begin this journey as the new Executive Director of the Tennessee Association for Supervision and Curriculum Development (TASCD). I have served TASCD as a member of the Board of Directors and Past President. I am thrilled to be moving forward with TASCD in this capacity. I come to this role with 25 years of experience in education and leadership. Throughout my career, I have had the privilege of working as a teacher at the elementary, middle, and high school levels, an assistant principal and the elementary and middle school levels, and a nonprofit leader before becoming an elementary principal.

We are making changes within our organization to ensure we hold true to our mission to support educators across the state of Tennessee. We will be intentional about providing an open forum for the analysis of educational issues, collectively influencing policy, and serving as a catalyst for change. We will also focus on being champions for diversity, expanding membership, and providing meaningful networking opportunities.

I believe that everyone needs a champion and that the path to true education lies in collaboration. Together, we will propel our organization to being a beacon of excellence and innovation in our field. I firmly believe that the true strength of any organization lies in its community. I am eager to collaborate with educators across the state to move us forward. I look forward to learning from your experiences, insights, and perspectives to collectively drive TASCD toward even greater success. Please reach out to me to share your thoughts, ideas, and aspirations for our organization.

As educators, we always find ourselves standing at the threshold of fresh opportunities, unexplored territories, as well as personal and professional growth. As we eagerly embrace the challenges and triumphs that lie ahead, let us reflect on the significance of this new chapter and the impact it can have on both ourselves and the school communities where we serve.

As we stand on the brink of a new chapter, let us embrace the journey with open hearts and eager minds. May this academic year be marked by collaboration, inspiration, and a collective commitment to the transformative power of education. Together, as educators, we have the privilege and responsibility to shape the future – one lesson, one student, and one academic year at a time.

Serving with Gratefulness,

Dr. Renee C. Meeks TASCD Executive Director tennascd@gmail.com

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TEL Journal

TENNESSEE EDUCATIONAL LEADERSHIP

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INVITATION TO SUBM NUSCD

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The *TEL* Journal is a peer-reviewed Tennessee Association for Supervision and Curriculum Development publication. The TEL Journal's mission is to communicate information, ideas, theoretical formulations, and research findings related to leadership, supervision, curriculum, and instruction. The authors' viewpoints do not necessarily reflect the association or journal editors. Authors are responsible for the accuracy of the information and legal use of all materials within their manuscripts.

Effective Strategies for Attracting Candidates to Online Graduate Programs

Joanna Zimmerle Austin Peay State University Hanrui He Austin Peay State University Tara Hill Austin Peay State University

This paper explores effective recruitment strategies employed by two master's level program coordinators and one faculty member in a college of education. It emphasizes the importance of building relationships and personal connections with potential candidates to foster interest and long-term commitment to graduate programs. The highlighted recruitment strategies include collaboration with the university's public relations (PR) department, outbound email campaigns, leveraging social media platforms, engagement with undergraduate candidates, and removing certain admissions requirements. By employing these strategies, our graduate programs have seen steady increases and stabilization in enrollment.

Keywords: Recruitment strategies, graduate programs, enrollment

ecruitment is essential for sustaining and growing specialized graduate-level academic programs. As program leaders and faculty in two relatively small, niche graduate programs, we found a common goal in growing our respective programs using new, research-based methods. Thus, we began working together to improve recruitment efforts during the Fall 2021 semester. Because our programs are so different in scope, with one being a Master of Arts in Education (MAEd) in Reading and the other in Instructional Technology, we did not perceive a conflict in collaborating to draw from the same candidate pool. We also believed that by partnering together, we could double our efforts and reach more prospective candidates.

Since our initial semester working together to improve recruitment, we have seen steady increases and stabilization in enrollment. Table 1 demonstrates these data. We included only those candidates who applied, were accepted, and enrolled in at least the first semester of courses. Others applied and either were not accepted or did not enroll in classes and were thus excluded from the enrollment data.

As shown in Table 1, there was a 29% increase in enrollment in the Reading MAEd program between the 2021 calendar year and the 2023 calendar year. Enrollment in the Instructional Technology MAEd program saw a tremendous 275% increase between the same years. We believe our success at increasing enrollment is due to using new, research-based strategies. This paper presents five strategies we used as program coordinators and faculty of the Reading and Instructional Technology MAEd programs to recruit candidates. Through sharing and reflecting, our goal is to inspire program leaders and other stakeholders to adopt, modify, and implement the strategies to enhance program enrollment.

Table 1

Programs	2021 Enrollment	2022 New Enrollment	2023 New Enrollment	Increase from 2021 to 2023
Reading MAEd	7 candidates	9 candidates	9 candidates	29%
Instructional Technology MAEd	4 candidates	11 candidates	15 candidates	275%

Program Enrollment Information Between Year 2021 and Year 2023

Collaboration with the PR Department

Studies have found effective recruitment flvers attract prospective candidates to college programs (Kiersma et al., 2010; Johnson & Kritsonis, 2007; Hines & Pearman, 2018). Designing effective flyers is both a science and an art. The design itself is as important as the content on the page. The creation and placement of headlines, details, images, and branded elements such as logos and specific fonts must be carefully planned. Although we could have designed our own flyer with pertinent content and an attractive design, it would have been difficult, not to mention time-consuming. establish to consistency with our university's lengthy branding guidelines.

Therefore, collaboration with the university's PR department was our first step toward recruiting more qualified candidates for our programs. We wanted a physical and digital way to share our programs with prospective candidates, and the PR department had graphic artists on hand who could design a flyer for us. We decided a onepage, full-color flyer would enable us to showcase each of our programs. We could have copies printed to hand out during recruitment events or send them out digitally as an attachment or embedded image in an email message.

We met with a PR staff member and discussed the content we wanted to include on the flyer, which included the program names, descriptions, program leader contact information, and QR codes linked to our program web pages. This collaboration facilitated the creation of an attractive, informative flyer that aligns with the institution's branding and effectively communicates program highlights and benefits to potential candidates. Figure 1 shows the first iteration of the flyer. Since then, it has undergone a few updates related to university branding.

Figure 1

Flyer for the Reading MAEd and Instructional Technology MAEd.



Outbound Email Campaigns

Outbound email campaigns have been successful in attracting graduate students and increasing their likelihood of application to graduate programs (Salesforce, 2019). The question is who to email. We chose to send recruitment email messages to current student teachers in our college and local teachers in partner districts.

The timing of the email messages we sent was deliberate. We emailed student teachers once in the middle of their final semester. This would give them time to inquire about applying to begin one of our programs the following semester, which is attractive to those who have not yet been offered a teaching job. We have also found some undergraduate students wish to continue through graduate school before applying for a teaching job. Learning about our graduate programs just prior to finishing their bachelor's degree is an optimal time for our undergraduate candidates.

Our other target audience is made up of local teachers in our partner districts. These are districts that physically border our district and are involved in our student teaching program. We emailed these teachers twice during each fall and spring semester in the days leading up to a long break, including President's Day weekend, Easter weekend, Labor Day weekend, and fall break. Our intention was to afford them adequate time to review program information, contact us with questions, and apply.

The email messages we wrote included a limited number of appropriate emojis, information in list format, and key details in bolded font. This was aligned with what research has shown about marketing and successful outbound email campaigns. For example, Das et al. (2019) and Orazi et al. (2023) demonstrate using a limited number of emojis appropriately can influence consumers to experience more positive effects and engage more frequently with advertisements. Emojis can also reduce cognitive load when used as a substitute for or complement to text, but only when a limited number are used; too many emojis can cause the reader to become overwhelmed (Orazi et al., 2023). Similarly, lengthy text can cause fatigue and overwhelm readers, particularly when reading on a screen such as a computer or smartphone (Benedetto et al., 2013). Thus, we used this research to engage readers strategically.

The content we included in the email messages was intended to be persuasive to differing viewpoints since prospective candidates would likely have different professional goals. For example, some would be looking to stay in the classroom or move into administrative positions, while others would want the option to leave the field of PreK-12 education altogether, such as to pursue a corporate staff training position. Figure 2 shows an email sent to teachers in a local partner school district. We highlighted the perceived benefits of earning a master's degree in either Reading or Instructional Technology, the steps to apply for either program and our contact information (not pictured).

Finally, we also embedded our recruitment flyer into each email message. The decision to embed the flyer, as opposed to attaching it, was guided by the awareness that numerous professionals exercise caution in opening attachments from unfamiliar senders. To mitigate the risk of our correspondence being flagged as spam, we deliberately maintained a higher ratio of textcontent. Furthermore. to-image the dissemination of messages transpired in a batch format, employing blind carbon copy (BCC) for each group of recipients, with each group containing 100 individuals or fewer.

Figure 2

Email sent to teachers in a local partner school district.

Dear Teachers, Have you been thinking 😃 about how to increase your pay 👗, your job prospects 💼, and your skills 🕨 ? We can help! 🙌

As the leaders of two **5% online master's degree programs** at Austin Peay State University - **Reading** and **Instructional Technology** - we're writing to let you know NOW is the perfect time to apply for spring admission.

Here's why you should consider our programs:

CMCSS teachers earn approximately \$5,000 more annually with a master's degree. (Source)
 A Reading master's degree will prepare you to work as a reading specialist or curriculum coach. (Comparing the second s

admission.php 2. Z Email a copy of your driver's license to gradadmissions@apsu.edu to verify lawful presence in the US. 3. Z Have your undergraduate institution(s) email official transcript(s) to gradadmissions@apsu.edu or snail mail them using our transcript request form here: https://www.apsu.edu/grad-studies/futurestudents/TranscriptRequestForm052715.pdf (If you have attended APSU, then you do not need to have transcripts sent.)

Ne'd love to chat with you! Just email us. Ask us anything!

Using Social Media Platforms

Social media platforms play a crucial role in attracting potential candidates to graduate programs (Peruta & Shields, 2017; Rosenberg et al., 2016). Active engagement on platforms such as Facebook, Instagram, and LinkedIn allows program coordinators and faculty to disseminate program-related content, testimonials, and success stories, thereby cultivating brand awareness and reaching a widespread audience.

Our strategic approach involved posting about our programs several times each semester, coupled with the encouragement of existing candidates to contribute testimonials. These posts were subsequently shared by other colleagues and garnered appreciation through likes from current candidates, their acquaintances, and family members, thereby enhancing visibility and diverse engagement. Figure 3 shows an example of a candidate testimonial for the Instructional Technology program.

Figure 3

X (Previously known as Twitter) post: A testimonial for the Instructional Technology MAEd.

Austin Peay State University College of Education
@APSUeduc

Meagan took the leap and started her master's degree in Instructional Technology at @austinpeay! You too can start your online master's degree this summer and graduate next summer with an M.A.Ed in Curriculum & Instruction.

? Email Dr. Zimmerle at zimmerlej@apsu.edu.



Engagement with Undergraduate Candidates

Engagement with undergraduate candidates at our own university has been an effective strategy for recruiting to our graduate programs. Graduate program coordinators or graduate faculty who are involved with undergraduate candidates can identify those who show interest in the field. enabling personalized outreach and highlighting the advantages of continued education. This involvement may come through being featured as a guest speaker, teaching a section of an undergraduate course, or involving undergraduate students

in research (Adams, 2019; Hernandez et al., 2018).

Other opportunities to connect with undergraduate students include volunteering at events such as football games and Homecoming activities or sponsoring student clubs. The positive interaction between graduate faculty and undergraduate students increases the program's visibility; it not only familiarizes prospective students with the prospective graduate program but also boosts their confidence in learning and researching (Adams, 2019).

Removing Barriers

Streamlining the graduate school application process is essential, and many potential applicants find the process challenging (Estien et al., 2023). Graduate school admission decisions have significant effects on candidates, universities, and the overall quality of the educational experience. To foster inclusivity and diversity within graduate programs, the removal of entry barriers becomes a critical initiative. A significant stride toward this objective has been the elimination of the Graduate Record Examination requirement (GRE) for admission to the Instructional Technology master's program, mirroring the progressive approach already taken by the Reading Master's program in the preceding years. Research findings support this pivotal shift in admission criteria. Moneta-Koehler et al. (2017) demonstrated the GRE did not predict important measures of student progress or productivity. Sullivan et al. (2022) found the absence of the GRE did not compromise student quality or program performance.

Moreover, insights from Hernandez et al. (2013) emphasize that dispensing with standardized test requirements can enhance access and diversity in graduate education. By eliminating the GRE requirement, prospective candidates who may have been discouraged or disadvantaged by standardized testing biases can now apply based on their qualifications, experiences, and potential for success in graduate programs.

Additional factors for potential removal encompass prerequisites related to immunization records for online-only programs and the minimum undergraduate grade point average (UGPA). Both immunization records and minimum UGPA requirements hinder access mav for candidates such as those from underrepresented backgrounds and nontraditional career paths. A more inclusive approach, which includes removing potential barriers to admission, helps ensure a diverse group of individuals have the opportunity to pursue their academic and professional goals in graduate programs.

Conclusion

Sustaining and growing specialized graduate-level education programs is a challenging task and requires ample effort and collaboration among various academic entities; the notable decline in higher education enrollment adds another layer of complexity (Grawe, 2021). Graduate programs should reevaluate their current recruitment approaches to reach the potential applicant pool and strategically streamline the admission process.

This paper presented five recruitment strategies that were effective for two online graduate programs, including collaboration with PR, outbound email campaigns, social media engagement, involvement with undergraduate candidates, and eliminating admission barriers, which can serve as inspiration. sources of Furthermore. successfully implementing recruitment strategies to increase enrollment in niche education programs relies on a collaborative approach emphasizing cooperation between program coordinators and faculty. By integrating these strategies into a detailed recruitment plan, program coordinators and faculty can ensure a consistent flow of qualified candidates to their specialized graduate programs.

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Empowering Teachers as Literacy Leaders: A Strategy for Teacher Retention

Tara Hill Austin Peay State University **Angela Stone** Austin Peay State University

As the national teacher shortage is reaching crisis levels, literacy leadership programs are a promising strategy for building teacher capacity, professional development, leadership, satisfaction, and retention. This paper explores the role of literacy leaders, describes a model of literacy leadership, and discusses how such programs empower teachers and enrich both the school culture and the professional experience of teachers. The benefits of these programs include opportunities for advancement and leadership, a culture of support, opportunities for professional collaboration, and building capacity in literacy. Considerations for implementation are also discussed.

he national teacher shortage is reaching crisis levels. Recent research has found that between twenty (Gray et al., 2015) and fifty percent of teachers leave the profession within the first five years (Haynes, 2014), with approximately 55 percent considering leaving the profession sooner than planned, according to a 2022 survey by the National Education Association. While attracting new talent to the teaching profession is crucial, retaining high-quality educators is equally vital in addressing this pressing issue. Teacher turnover poses a significant challenge to the education system, impacting the quality and continuity of education. Recent research has identified several factors contributing to teacher dissatisfaction. including lack of input in job-related issues, limited opportunities for career advancement, and a sense of isolation (Ingersoll et al., 2017; Hadar & Broder, 2010). This article proposes literacy leaders as a strategic approach to address the teacher retention crisis, offering a pathway to increase teacher satisfaction, professional foster collaboration. and enhance the overall literacy culture in schools.

Several factors push teachers out of the classroom, such as pay or teaching assignments, but one of the biggest reasons for leaving the classroom is having little or no say in decisions and having no voice (Ingersoll et al., 2017). Having little autonomy or agency can cause feelings of frustration and hasten leaving the classroom. Dissatisfaction with teaching occurs due to the realities of increasing responsibilities and accountability while the agency and teacher's voices are diminished due to mandates and boxed curriculums. Culvert describes teacher agency as " the capacity of teachers to act purposefully and constructively to direct their professional growth and contribute to the growth of their colleagues" (2016, p. 52). Teachers who feel little control to act purposefully over their professional pathways and instructional decision-making often express discontentment and leave the profession.

Another factor contributing to dissatisfaction among educators is the perceived lack of opportunities for career growth. Many teachers feel trapped in the classroom, with the prospect of becoming an administrator being the only avenue for advancement. The prospect of entering administration is not appealing to all teachers. A flat career path and few opportunities for professional growth discourage entrance into teaching and also hasten to leave the profession, believing the only way to move up is to move out of teaching. Unfortunately, schools and districts then lose experienced, quality teachers.

Additionally, the sense of isolation and loneliness further contributes to teacher dissatisfaction. Teaching can often feel like a lonely endeavor as interaction among faculty is limited to brief, cordial pleasantries sprinkled with a few quick PLC (Professional Learning Community) meetings each week. Opportunities for sustained talk about their own teacher practice and mentorship, which strengthen collaboration, belonging, and ultimately positive student outcomes, are often limited in the traditional school structures of administrator and teacher. Isolation further reinforces the perception of having little voice in school-wide decisions and personal agency. Feelings of isolation can persist without quality teacher-to-teacher interactions.

Literacy leaders can play a pivotal role in providing opportunities for career advancement and leadership within the teaching profession. By empowering teachers with the skills and responsibilities associated with literacy leadership, schools can create a more engaging and fulfilling career path for educators. Multiple studies have reported positive outcomes for teacher leadership programs in K -12 schools, including increased teacher retention, instructional reform, and a sense of professional validation (Reid et al., 2022; Wenner & Campbell, 2017; Wronowski et al., 2023; York-Barr & Duke, 2004). Feelings of belonging, agency, and productive collaboration can be fostered with a literacy leadership program.

What are Literacy Leaders?

Before continuing any further, it is important to first discuss what is meant by "literacy leaders" or "literacy leadership." These terms are not meant to refer to the varied "specialized literacy professionals" surveyed by Bean et al. (2015), such as instructional/literacy coaches, reading teachers/interventionists, reading/literacy specialists, and supervisors. Those roles are specialized positions that are separate from classroom teachers, and while these very important roles could play a part in a literacy leadership program, they are not the focus of this article. This article, instead, discusses literacy leadership models in which classroom teachers become literacy leaders within their schools or districts and take on leadership roles and responsibilities while still working directly with students as classroom teachers. Literacy leaders are a specialized kind of "teacher leaders" (Wronowski et al., 2023). The roles and responsibilities may vary between schools or districts, but maintaining teacher status while becoming a literacy leader is key to this distinction. These literacy leaders are teacher leaders rather than administrators or other specialized positions.

Over the past few decades, there have been waves of models and approaches to teacher leadership. We suggest a teacherleader model of literacy leadership because of a few key advantages of this approach. First, teacher leadership programs can be developed at a local level in order to respond to a specific school or district's needs. Second. teacher leadership programs demonstrate school district's а or commitment to professionalizing teachers and enhancing their careers. Third, teacher leadership programs allow teachers to make meaningful contributions to school improvement efforts (Henry et al., 2023).

A Model of Literacy Leadership

While varied models of literacy leadership exist and the roles and responsibilities of the literacy leaders differ among these models, this article will share one particular model from one of our partner districts that has seen a great amount of success in increasing teacher satisfaction and retention. This is not meant to imply that this is the only or even the best model of literacy leadership, but rather, this model is offered as an example of what literacy leadership could look like in a district.

In this district, a number of classroom teachers are selected to serve as literacy leaders for a two-year term. These teachers are identified by their principals on the basis of their outstanding literacy instruction and then are selected based on their applications and interviews with district-level coordinators. Teachers receive a financial incentive for taking on this role. They are full-time teachers specifically targeting literacy outcomes for students while mentoring a novice teacher in their classroom and promoting literacy school-wide. The focus is on three key components: hosting a model literacy classroom, promoting refined instruction, and pursuing professional growth. They agree to open their classrooms as model literacy classrooms, which may involve peer observations. video of instruction, reflective dialogue with colleagues. and shared resources. Additionally, they agree to participate in pursuing growth through the professional learning community of literacy leaders. Literacy leaders receive frequent, specialized development professional literacy to redeliver to groups of teachers at their own schools. Part of this professional learning enables literacy leaders to become key players in developing, promoting, and evaluating district and school professional development plans, thus giving literacy leaders a big voice and agency in both professional growth and instructional design. Refined literacy instruction provides a powerful model for novice teachers while allowing the literacy leader opportunities to hone best instructional practices in collaboration with other literacy leaders across the district.

Benefits of Literacy Leadership

The benefits of a literacy leadership program are far-reaching. Such a program can impact teacher retention and satisfaction, teacher efficacy, student learning, the school community, and much more. Because the focus of this article is using literacy leadership programs to address the issue of teacher shortage and teacher retention, only the benefits related to this topic will be discussed here. However, it is worth mentioning that there is a wide range of benefits to involved additional all participants.

With the model described above, the district is utilizing the expertise of its own teachers to strengthen the literacy climate of its schools. The literacy leaders themselves benefit from the professional growth of the program, and the other teachers in the school benefit from the peer support and development. Because the professional development is coming from peers, this district has noted significant buy-in from its teachers in the professional development sessions, similar to what was found by Wronowski et al. (2023) that teachers were more likely to buy into professional learning experiences developed by other teachers rather than by administrators. Literacy leaders in this district have appreciated the increased sense of agency, as they feel like they have a voice in the professional development that their school is receiving, and the positive effects of cross-district collaboration. One literacy leader noted. "I get to work with the best in the district, highlighting the energizing and empowering effect that has had on her own teaching and professional growth." Another literacy leader added, "I have definitely felt more of a belonging since becoming a literacy leader. It has helped to fulfill a need to become a better teacher but also to help my peers hone their craft." Regarding professional validation and growth. she went describe on to

empowerment and potential in her career path, also stating, "Through the literacy leader program, it has made me feel more confident in pursuing more professional growth and is paving a path for professional advancement." Speaking about professional collaboration and a sense of voice, one literacy leader explained, "I feel like I've encouraged all of us to use our voices while I've been in this position, and we have a group of smart, articulate leaders on our team who do just that. The whole team enjoys sharing ideas and discussing strategies. These literacy leaders experienced all three areas of teacher-leader empowerment identified by Reid et al. (2022): empowerment through a sense of belonging, empowerment through professional validation, and empowerment through credibility.

Opportunities for Advancement and Leadership

Some teachers would like to seek opportunities for career advancement and leadership but choose to remain in the classroom or in a teaching role because of their desire to work directly with students. A participant in the Wronowski et al. (2023) study articulated, "You get to a point, and then, like, you either stay there [as a teacher]. or you have to go into administration." Wronowski et al. (2023) explained, "Being a teacher leader provided an "alternative" pathway for teachers to engage in more complex work in their schools or district, especially related to leadership and management, but not become a full-fledged administrator" (p. 15). Literacy leaders can serve as mentors and guides, offering a path for teachers to advance in their careers without transitioning into an administrator role. This not only retains experienced educators in the classroom but also provides a structured way for them to take on leadership roles. In this capacity, literacy leaders are able to navigate satisfying roles within the school while directly teaching and mentoring novice teachers and their own classrooms. This role can foster renewed personal and professional goals, thus energizing teachers for professional capacity and leadership.

Culture of Support and Opportunities for Professional Collaboration

Literacy leaders possess the potential to improve school conditions by fostering a culture of support and collaboration. In schools facing challenging environments characterized by limited resources and development opportunities, professional literacy leaders serve as beacons of positive change. Through their expertise and commitment, these leaders inspire a sense of purpose and shared responsibility among educators, creating a sense of agency and belonging. By creating a supportive network within the school community, literacy leaders mitigate the feelings of isolation that often accompany poor school conditions. They champion collaborative initiatives. encouraging teachers to share ideas. practices. resources. and best This collaborative spirit not only enhances the overall quality of literacy instruction but also builds a culture of mutual support where educators feel valued and empowered. Literacy leaders, through their mentorship and guidance, provide teachers with the tools challenges navigate and develop to resilience, ultimately transforming poor school conditions into an environment that thrives on collective support and a shared commitment to student success.

Additionally, literacy leaders serve as connectors between teachers and administrators at the school and district levels. Because "teacher leaders have one foot in the classroom and one foot in the hallway," they are able to connect teachers with school and district staff and mediate those relationships (Wronkowski et al., 2023, p. 12). This contributes to building a culture of support and collaboration.

Building Capacity in Literacy

Literacy leaders must stay informed about evidence-based best practices to mentor novice teachers (Smith, 2006). While doing so, literacy leaders build capacity in their own professional learning and receive specific training to develop expertise in literacy and pedagogy. This fosters a sense of professionalism and purposefulness in the teacher as this knowledge is modeled and shared.

Literacy leaders contribute to strengthening the overall literacy culture in schools. Their expertise and guidance help improve literacy instruction, benefiting both the literacy leaders and the teachers they support. By actively engaging with teachers, these leaders facilitate a continuous exchange of knowledge, resources, and innovative practices. fostering а dvnamic and collaborative literacy community. This collaborative spirit not only elevates the quality of literacy instruction but also enhances the professional growth of both literacy leaders and the teachers under their mentorship. Teachers begin to have a sense of empowerment and voice. As literacy leaders empower educators with refined skills and insights, a ripple effect occurs, positively impacting student outcomes. When teachers are involved in decisionprocesses making related to school improvement, students learn more (Ingersoll, 2016). The collective commitment to enhanced literacy practices permeates the entire school environment, creating a culture literacy learning that prioritizes and development. Literacy leaders serve as catalysts for change, influencing not only instructional practices but also the overall culture of the school.

In addition to building literacy capacity, literacy leaders build consistency

within their schools and school districts. Conflicting instructions and implementation of literacy programs have been the cause of much frustration for teachers, who then may decide that the inconsistency is not worth the struggle and just forge ahead, doing their best. Because literacy leaders train together and collaboratively plan delivery to other teachers, implementation, and understanding of the literacy instruction and conceptual understandings are consistent across the district, creating a sense of purposefulness with a common set of goals and expectations.

Considerations for Creating a Literacy Leadership Program

Wronkowski et al. (2023) identified three specific needs with regard to teacher leadership programs: "(a) creating new teacher leadership positions or opportunities, (b) providing for the partial release for teachers who remain in the classroom and assume leadership positions or opportunities, and (c) expanding compensation (e.g., stipends) for teacher leadership work" (p. 15). We suggest two other important issues to keep in mind when creating a literacy leadership program.

First, the program should be an asset to teachers and the school rather than a burden. Obviously, the role of a literacy leader will come with additional responsibilities and expectations, but it is important to frame and balance those responsibilities so that they do not feel like a burden either to the literacy leader him/herself or to the teachers with whom he/she is working. If the program is built as an add-on or something that teachers are expected to do in addition to all of their current responsibilities, the program will likely feel like an unnecessary burden that is overwhelming teachers rather than supporting them and helping them grow. In such cases, the program is likely to have the reverse effect of pushing teachers away from the classroom rather than increasing teacher retention. One possible solution for this issue of overburdening teachers is the idea above from Wronkowski et al. (2023) regarding partial release for teacher leaders, though there are other ways of structuring programs to solve this issue as well.

Second, the program must establish a positive environment of professional collaboration. By being on the frontline, teacher leaders inherently have some buy-in from other teachers. However, if teachers begin to feel like teacher leaders are simply another level of administration or appointees who have been designated to check up on them rather than support them, the program will do more harm than good. It is essential that the relationships remain positive, collaborative. and supportive. Teacher leaders should engage in professional learning so that leaders (Plecki & Knapp, 2014) can be coached and mentored on how to handle their roles, and their responsibilities should be designed in a way that fosters these collaborative and supportive relationships.

Conclusion

In the face of the ongoing national teacher shortage crisis, leveraging literacy leaders is a promising solution. By addressing the root causes of teacher dissatisfaction and providing avenues for career advancement. professional collaboration, and skill development, literacy leaders can play a crucial role in retaining high-quality educators. Invested teacher leaders can increase teacher retention by increasing teacher agency, improving the school climate and culture, and providing opportunities for growth and advancement (Wronowski et al., 2023).

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Using Lagged Enrollment to Predict High School Graduates

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Identifying trends of population growth and decline across Tennessee counties can help institutions of higher education plan for the future. In particular, reliable projections of the expected number of high school graduates can help institutions adapt to changing market conditions and strategically plan recruitment, enrollment, and marketing efforts. This research uses population projections and lagged grade counts from the Tennessee census to project the number of high school graduates up to 13 years in the future. We demonstrate that projections based on lagged grade counts are more statistically robust to changes in education policy than projections based on population alone. While this study only uses data from Tennessee public schools to predict high school graduates, it is clear that the methodology used could apply to other states as well.

dentifying trends of population growth and decline across Tennessee counties can help institutions of higher education plan for the future. In particular, reliable projections of the expected number of high school graduates can help institutions strategically plan recruitment and marketing efforts market amidst changing conditions. Specifically, understanding how many high school students are in the pipeline for entrance into higher education is vital to the planning, economic development. policymaking, and infrastructure development of all colleges and universities. Accurate projections will enable enrollment management personnel to buttress limited financial resources to those areas where they are most needed.

Enrollment projections have been widely used throughout the education environment, particularly within public primary and secondary schools as well as higher education institutions. Enrollment forecasts that are both reliable and valid give educational administrators, policymakers, and government officials a vital "crystal ball" look into impending trends, shifts, or anomalies so that they can better plan for the future. In most cases, effective enrollment forecasting becomes an important financial tool that helps to determine where resources are dwindling or where revenue should be increased in order to sustain infrastructure, larger classrooms, and more instructors.

For almost 50 years, the U.S. Department of Education has provided projections for key education statistics, including enrollment, graduates, instructors, and expenditures for both public and private kindergarten through 12th grade schools as well as higher education institutions. Not only does the report look at national data within these areas, it also gives state-level predictions as well. Entities like the Western Interstate Commission for Higher Education (WICHE) and the Southern Regional Education Board (SRBE) have created similar models with comparable, if not more conservative, outcomes. These data will become increasingly important to higher education administrators as they try to navigate the choppy waters of college enrollment uncertainty.

Specifically, WICHE has predicted that high school graduations will slightly increase over the next few years. However, depending on the region within the U. S., the number of students receiving a high school diploma will flatten or decrease after that time. It, therefore, becomes increasingly important to monitor the high school graduate environment (WICHE, 2022). According to Langston *et al.* (2016), the use of statistical and mathematical models allows administrators to be better positioned in the enrollment management environment by having access to stronger and more reliable enrollment forecasts to allow colleges and universities to predict enrollment with greater confidence. Integrated statistical models, according to Chen (2008), give the researcher a better understanding of how specific variables affect student enrollment and, therefore, lead to more effective predictions. While autoregressive integrated moving averages (ARIMA) and ratio models have been the staple for enrollment and graduation projections, other models that utilize independent variables to predict a dependent variable are also used. These models may have a benefit over ARIMA models in projecting enrollment in that they rely on the relationships of other data rather than just historical enrollment. Specifically, in this study, lagged historical data of kindergarten through 12th-grade enrollment within specific grade levels, as well as historic state population numbers, are used to project high school graduates in the state of Tennessee for the next 13 years. Not only are the models used reliable, but they clearly demonstrate the relationships of kindergarten through 12th-grade enrollments to future high school graduates.

Types of projection models

Various models are used to project high school graduates by using inherent mechanisms within to explain the change in graduate numbers. Each type of model uses a methodology to detect and predict changes in high school graduate numbers. Therefore, while models these use different methodologies, their effects can all be strong and reliable. Some of these models rely only on the trend of high school graduates over a period of time. Others analyze variables in order to determine association lending suggestion of predictability of high school graduates. It is up to the researcher to understand each model, recognize its strengths and weaknesses, and choose the best model for the data at hand. What follows is a brief discussion of some of the more prominent models used in projecting the number of high school graduates.

Ratio Method – One of the simplest project models to use is the ratio method. According to Wing (1974), it is the ratio of high school graduates of the current year to high school graduates of the previous year multiplied by current high school graduates. This method is expressed in the following formula:

Forcasted High School Graduates = Actual HS Grads, Current Year <u>Actual HS Grads, Previous Year</u>

While this method is quick, easy, and can be effective, it is also highly dependent on the previous year's numbers, which could be skewed (Pettibone & Bushan, 1990). As will be seen later, this same issue is present in the Markov Chains model.

Cohort Survival Method – This method takes the total number of students enrolled from a given cohort (i.e., high school freshmen) and computes the percentage of those students who actually graduated during the current year. According to Lyell & Toole (1974), this percentage is then applied to the number of the next cohort class in order to project how many students will graduate in the future. For instance, if it is found that the number of current-year graduates is 81% of the cohort four years ago, the projected enrollment will be .83 multiplied by the current number of high school freshmen. Because this method is a straight-line form of calculation of past trends, the strength of the model can be determined by comparing the projected number to the actual number.

Markov Chains – According to Gandy et al. (2019), the Markov Chain model predicts the probabilities of future occurrences based on probabilities of current known probabilities. The Markov method can have various states for graduating and for not graduating. For instance, this model could differentiate between college prep and non-college prep graduates. While this model has an intuitive nature in determining student flow characteristics, the model can only give accurate projections a few years out.

Time Series Analysis - This method uses a collection of data points collected sequentially through equally spaced periods. According to Brinkman and McIntyre (1997), time series forecasting assumes that the future is dependent on the present while the present is dependent on the past. There are various forecasting methods using time series data, such as moving averages, exponential smoothing, autoregression, ARIMA, neural network models, etc. Choosing the best method is predicated upon the type of data, data patterns, and the level of forecasting accuracy.

For instance, exponential smoothing is a time series method that gives weights to previous data to predict future data. There are three types of exponential smoothing methods. Single exponential is used on data that have a stable fluctuating pattern. Double exponential is used on data that have a trending pattern. Triple smoothing is used on data that have both trend and seasonal patterns.

Another popular time series method is the Autoregressive Integrated Moving Average (ARIMA). This method is a statistical analysis that predicts future values based on past values by using lagged moving averages to smooth time series data. While this method is good for short-term forecasting. It is not useful for more than a few years out. Furthermore, this model is poor at predicting turning points within the data.

Regression Analysis – This method of forecasting is a statistical method that shows the relationship between two or more variables. The analysis yields a predicted value of the dependent (criterion) variable and one or more independent (predictor) variables. In essence, for this study, the mode will determine which possible predictors have a relationship with the number of students who graduate high school for a particular year. Once a relationship has been determined, the strongest predictors can be used to develop predictions. A simple regression model can be expressed by the following expression:

$$Y_i = f(X_i\beta) + e_i$$

Where Y_i is the dependent variable, f is the function, X_i is the independent variable, β represents the unknown parameters, and e is the error term.

The simplest form of the model is the linear regression/curve fitting method. It is referred to by Webster (1971) as the law of growth principle method. This method uses the number of high school graduates as the dependent variable and the year as the independent variable. While this method is quick and simple, it suffers from a lack of explanatory value because only the year used. Furthermore, the model misses other important values that could strengthen the prediction.

Another type of simple regression uses a variable other than year to predict high school graduates. The independent variable could be current in that one could use the total number of seniors enrolled to predict how many will graduate. However, the independent variable could also be lagged, whereby the total number of 9th graders four years back could be used to predict current high school graduates. It should be noted that, in this current study, the researchers used lagged variables.

Multiple regression is another type of method within this category. This method utilizes multiple independent measures to collectively predict high school graduates. These variables could include population, economic, and education statistics. The difficulty with this method is that while it is desirable for each independent to have a relationship with the dependent variable, it becomes problematic when independent variables have a relationship between them. This relationship can become a confounding variable.

Current Predictions of High School Graduates

The National Center for Education Statistics (NCES) has been projecting national, regional, and state-wide high school graduates for the past 28 years with reasonable success. Depending on the range projected, NCES calculates the number of high school graduates as a percentage of 12th-grade enrollment based on historical data. Exponential smoothing is then used to project the percentage. In essence, NCES uses a combined survival analysis method with a time series method.

To arrive at their projections, the Department of Education uses both single and double exponential smoothing techniques, which is a type of ARIMA model. In general, exponential smoothing places more weight on recent observations than on historical ones. The weights for observations decrease exponentially as the data move further into the past. Single smoothing is used to make forecasts based on a time series that has no trend or seasonality. Double exponential smoothing allows for more accurate projections of trend and seasonality of data. According to the federal data, the overall number of high school graduates will be flat to decreasing depending on the geographic area.

The most recent NCES report projects high school graduates up to 2029. According to Figure 1, the number of high school graduates increased nationally by 14% between 2003-2004 and 2012-2013. The number of high school graduates is projected to be 7% higher in 2028-2029 than in 2012-2013. Regionally, NCES projects that the South and Midwest will have a higher number of graduates in 2028-2029 than in 2012-2013. These projections are supported by other positive factors in these regions, including both economic and population growth.

Figure 1

NCES High School Graduate Trends and Projections



For the past ten years, the Western Interstate Commission for Higher Education (WICHE) published high school graduate has projections disaggregated by public and private schools, and race and ethnicity. Their most current report projects the number of graduates out to 2037. To arrive at their projections, WICHE uses the cohort survival ratio. This ratio includes the observation from the count data sources, the progression of the number of students from birth to first grade, through each grade, and eventually from the 12th grade to high school graduate.

WICHE uses these calculated ratios to project the number of enrollments and graduates in the years to come. They use a five-year smoothed average ratio to make the projections. This method places relatively greater weight on the most recent year's data without masking or eliminating any trends that would be evident by taking a longer view. Each cohort survival ratio is calculated as follows:

$$Y_{pt}wY_{p(t-1)} + (1-w)\frac{\sum_{i=2}^{5}Y_{p(i-1)}}{4},$$

Where Y_{pt} is the cohort survival ratio at a given progression point p in year t, and w is the smoothing weight (equal to 0.4 in the first year and .15 for each of the four prior years.) According to the data in Figure 2, the number of high school graduates is expected to peak nationwide by 2025 and begin a downward trend by 2037, equaling the number of graduates from 2014-2015. Within the southern region, however, the 2025 peak is not as apparent, but the decay to 2037 is very small, and the trend is almost flat.

Figure 2

WICHE US and Southern High School Graduation Trens and Projections



Within Tennessee, as shown in Figure 3, WICHE still predicts a 2025 peak; however, the future trend is flat, with the 2037 projection equaling the number of high school graduates from 2020-2021. While these projections go out further than the NCES projections, it is clear that Tennessee should be able to weather a projected downward trend in high school graduates nationwide.

Figure 3

WICHE Tennessee High School Graduation Trends and Projection



Methodology

This study uses population projections and lagged grade counts from the Tennessee census to project the number of high school graduates up to 13 years in the future. The conclusions from the study demonstrate that projections based on lagged grade counts are more statistically robust to changes in education policy than projections based on population alone. Furthermore, this study, which uses regression analysis, will compare the projected outcomes to the WICHE study, which uses cohort survival analysis.

The first step in creating the model was to collect historical Tennessee enrollment data. These data included kindergarten, 1st, 5th, 9th, and 12th-grade enrollments from 1985 to the present. These data were obtained through the Digest of Education Statistics from the Department of Education. Due to the two-year lag of projection made by the NCES, the latest data that could be obtained was for 2021.

The results of the data collection are shown in Figure 4. While the data show a moderate increase in enrollments for kindergarten as well as 1st through 9th grades, there is a steep increase in the number of 12th graders and, subsequently, high school graduates starting in 2003. This increase in the number of 12th graders and high school graduates coincides with and is plausibly related to the No Child Left Behind Act signed by President George W Bush in 2002.

Figure 4

Tennessee Education Trends: Kindergarten, 1st , 5th, 9th, and 12th Grades with High School Graduates



Further evidence that this sharp increase is due to educational policy rather than what would be expected based on state population growth alone comes from inspecting the

following plots: Figure 5 shows Tennessee population growth from 1985 to 2021 (left) and also shows Tennessee population plotted against high school graduates (right). It is clear that Tennessee's population has been steadily increasing at a relatively constant rate from 1985 to the present. High school graduation numbers, however, show approximately three qualitatively different states during this same time period. Despite the steady increase in population, the number of high school graduates appears to be flat or declining between 1985 and 2000, followed by a sharp, constant increase (stronger than expected via population increase alone) from 2001 to about 2010, and culminating in a flat or slightly positive trend from 2011 to the present.

Figure 5

Tennessee Population Growth Compared to Number of High School Graduates



Characteristics of the three different phases can be seen by plotting year-to-year percent change in high school graduate numbers over time (Figure 6). The prediction line segments indicate the average percent change during each of the three phases. The first phase (mean = -0.54) looks like a white noise process, with values randomly fluctuating around 0 or slightly below. This first phase appears to be a steady state but is more likely flat as a function of two opposing processes: a steady increase in population on the one hand and a decline in retention rate during this time period on the other.

Then, there was a change around 2001, which produced a steady increase in high school graduation numbers (mean = 4.83), which eventually culminated in a new, higher steady-state around 2010 until the present (mean = 0.37). This second steady state looks similar to the first in that the percent change year-to-year fluctuates around 0 but with substantially less variability.

Figure 6

Tennessee High School Graduates



Thus, it is clear that the relationship between the Tennessee population and Tennessee high school graduates is indirect. Given the sensitivity of high school graduate numbers to changes in education policy and other potential factors, models predicting the number of high school graduates based on population alone are unlikely to produce reliable projections. There is an obvious need to incorporate measures that are more robust to changes in education policy. To this end, the study presented here uses lagged kindergarten through 12th-grade public school grade counts in addition to population projections. In particular, we use counts of the number of kindergarteners with a 13-year lag, 1st graders with a 12-year lag, 5th graders with an 8-year lag, and 9th graders with a 4-year lag. In the ideal scenario, a model based on kindergarten counts can produce projections for high school graduates

13 years into the future. Comparisons between the projections made by the most ambitious model (i.e., kindergarten 13-year lag) and models using other grade counts are important for assessing the reliability and consistency of the projections being made. Additionally, fitting models based on different lagged grade counts and performing model averaging across each model's projection where those projections overlap can improve the precision of these estimates.

Unlike many previous approaches to projecting Tennessee high school graduates, which adopt particular modeling a framework, here we fit a number of model directly variants and compare their performance using cross-validation. The set of models considered here is shown in Table 1. As a baseline measure, we include an ARIMA model. Table 1 shows a simple Autoregression of order one model (AR(1))as an example ARIMA model, but, in general, ARIMA refers to a class of models that can have any number of autoregression or moving average components. While ARIMA models have been widely adopted for enrollment projections, autoregressive models alone typically produce poor longterm forecasts. Here, we compare the following additional models: three simple regression models (population-only, lagged grade count-only, and population + lagged grade count) and three regression models with ARIMA errors, which is an extension of ARIMA models to include covariates in the prediction of the dependent variable. These models capture residual can anv autocorrelation in the time series after regressing on the covariates of interest.

Table 1

ARIMA	HS Graduates _t = β_0 + β_1 HS Graduates _{t-1} + ϵ_t
Population	HS Graduates _t = β_0 +
Regression	$\beta_1 Population_t + \varepsilon_t$
Lagged Grade	HS Graduates _t = β_0 +
Regression	$\beta_1 Lagged Grade_t + \epsilon_t$
Population +	HS Graduates _t = β_0 +
Lagged Grade	β_1 Population _t +
Regression	β_2 Lagged Grade _t + ε_t
Population	HS Graduates _t = β_0 +
Regression +	β_1 Population _t + η_t ,
ARIMA error	where $\eta_t = \eta_{t-1} + \varepsilon_t$
Lagged Grade	HS Graduates _t = β_0 +
Regression +	β_1 Lagged Grade _t + η_t ,
ARIMA error	where $\eta_{t} = \eta_{t-1} + \epsilon_t$
Population +	HS Graduates _t = β_0 +
Lagged Grade	β_1 Population _t +
Regression +	β_2 Lagged Grade _t + η_t ,
ARIMA error	where $\eta_{t} = \eta_{t-1} + \varepsilon_t$

Model Types and Example Equation

Model Validation

In order to compare the performance of each model, we employed the following cross-validation strategy: The high school graduate data was partitioned into a training set and a test set where the size of the test set was equal to the number of lags in the grade count. This was done to ensure that the validation procedures were as close as possible to the model's intended use case. For example, the intended use case of the kindergarten model was to produce reliable 13-year forecasts. Therefore, the test set (i.e., forecast horizon) was comprised of the most recent 13 years of high school graduate counts (i.e., 2009-2021), and the training set was comprised of the remaining years (i.e., 1998-2008). Each of the models described above was fit on the training set, and n-step ahead forecasts were produced. The mean absolute percentage error (MAPE) between the model's projected number of high school graduates and the actual number of high school graduates was calculated.

Table 2 shows the MAPE values for each model. Highlighted in bold is the bestperforming model for each group. The Lagged Grade regression model with ARIMA errors consistently performed the best on the cross-validation test sets for each grade. In all cases, the MAPE value was lower than 3%.

Model Projections

Based on the model validation procedure discussed in the previous section, the Lagged Grade Regression with ARIMA errors model was used to generate projections for high school graduates after 2021 in each case (Figure 8). The projections of each model are fairly consistent with one another, with a modest increase in high school graduates projected from 2022 until around 2025, at which point the projection dips and flattens out. Thus, the evidence presented here suggests that the number of Tennessee high school graduates is expected to remain relatively constant in the near to long term. Table 3 shows the 13-year forecasts of the graduates number of HS from the kindergarten model compared to projections by the Western Interstate Commission for Higher Education (WICHE) and the National Center for Education Statistics (NCES).

Table 2

Mean Absolute Percentage Error Values for Each Model

Grade	Model	MAPE
Kindergarten (13-year forecast)		
	ARIMA	26.9
	Population	12.1
	Grade Lag	5.1
	Population + Grade Lag	8.8
	Population (ARIMA)	11.9
	Grade Lag (ARIMA)	2.8
	Population + Grade Lag (ARIMA)	7.3
1st Grade (12-year forecast)		
	ARIMA	19.2
	Population	12
	Grade Lag	15.2
	Population + Grade Lag	11.6
	Population (ARIMA)	11.3
	Grade Lag (ARIMA)	2
	Population + Grade Lag (ARIMA)	12.4
5th Grade (8-year forecast)		
	ARIMA	3.3
	Population	3.9
	Grade Lag	4.8
	Population + Grade Lag	3.7
	Population (ARIMA)	4
	Grade Lag (ARIMA)	2.4
	Population + Grade Lag (ARIMA)	3.6
9th Grade (4-year forecast)		
	ARIMA	7
	Population	2.6
	Grade Lag	13.5
	Population + Grade Lag	3.1
	Population (ARIMA)	4.2
	Grade Lag (ARIMA)	2.4
	Population + Grade Lag (ARIMA)	3.4

Figure 8

Graduate Projections By Grade



Table 3

Model Projections

	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Kindergarten Model	64651	64628	65350	65667	65076	64243	64079	64176	64363	64437	64662	63134	64528	-	-
WICHE	65200	66940	68480	67830	65300	64640	64700	65250	64530	65900	66140	65430	65560	65310	65080
NCES	65250	67010	68260	67850	65050	64230	64670	-	-	-	-	-	-	-	-

Conclusion

This research compared a number of modeling strategies for projecting the number of Tennessee high school graduates. Models based on population tended to produce poor forecasts as assessed via cross-validation. This is likely due to changes in educational policy influencing kindergarten through enrollment, retention, 12th-grade and graduation rates in a way that obfuscates the relationship between population growth and the number of Tennessee students graduating from high school. Models based on lagged kindergarten through 12th-grade counts, on the other hand, proved to be robust in influencing educational policy. While this study only uses data from Tennessee public schools to predict high school graduates, it is clear that the methodology used could apply to other states as well.

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Three Effective Steps for Making Professional Development Meaningful

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Professional development should be one of the most valuable things that can be offered to teachers in the school, but often, teachers leave professional development opportunities feeling unfulfilled. In seeking to make professional development meaningful, this article explores how instructional coaching, planning and implementing lessons in collaboration with other teachers, and having a growth mindset through reflective teaching are three key steps to bridging the gap into meaningful Professional development.

rofessional development (PD) affects every teacher, administrator. district and school leader. It is one of the most common ways in which schools seek to improve instruction by working with teachers through training – often held in a large auditorium with one speaker and a room full of teachers who have been sent to attend. Districts and states require teachers to log a specified number of professional development hours each year, which may not reflect any significant change in teaching practice. Yet, there is an opportunity for professional development to be more meaningful than a checkmark on a to-do list and instead become genuinely impactful for the teachers who attend. Through embedding instructional coaching built on trust, planning and implementing lessons in collaboration with other teachers, and having a growth mindset through reflective teaching, teachers can experience the benefit of meaningful, embedded professional development.

The Professional Development Conundrum

Professional development should be a tool that helps teachers grow. However, every teacher or administrator has had the experience of attending a workshop and walking away wishing they had learned more. More than once, I have heard teachers say, "If I can get just one idea from these days of training, then the training will be worth the time I spent." These sentiments leave teachers who seek to improve their teaching practice and want meaningful professional development feeling frustrated because they are left wanting more. Some even leave a training feeling that it was a waste of time rather than a support for them because it is not new information, or it is information that does not directly impact their teaching. This administrators leads and instructional coaches to ask how they can ensure that professional development is more than just a checkmark on a to-do list; it becomes a means to improve instruction.

Professional Development – What we already know:

Professional development should be a vehicle to help teachers grow in their profession rather than a means of frustration for them. All too often, "PD does not always lead to professional learning" (Darling-Hammond et al., 2017, p. 1). Darling-Hammond et al. (2017) found that there are traits of good professional seven development, which are as follows: contentfocused, incorporates active learning, supports collaboration, uses models of effective practice, provides coaching and expert support, offers feedback and reflection, and is of sustained duration (p. 4). Similarly, Desimone and Pak (2016) suggest that the coach should offer effective professional development either in small groups or in larger settings. There are "five

features that need to be in place," which include "content focus...active learning...coherence...sustained duration...collective participation" (pp. 3–4). Regardless of the professional development methodology, though, for any of these coaching methods to be effective, the first thing that must be established is the teacher's belief in the effectiveness of the professional development. Without this belief, it becomes more difficult for professional development models in the form of instructional coaching to exist (Aguilar, 2020; Kraft et al., 2018; Turner, 2023).

It has been shown that one-day professional development does not yield the results that schools need for ongoing education and growth; rather, professional development must be continuous and should have a positive, embedded impact on the school setting. Desimone (2009) asserted that "those characteristics of an activity that make it effective for increasing teacher learning and changing practice, and ultimately for improving student learning—rather than on the *type* of activity (e.g., workshop or study group)" should be considered when defining professional development (p. 183).

When ensuring the effectiveness of professional development programs, schools need to consider how instructional coaching can be embedded as part of that program. To accomplish that, the following three steps would work together to make professional development that is meaningful: (1) embed instructional coaching focused on building trusting relationships; (2) work together to plan and implement lessons in collaboration with other teachers; and (3) build a growth mindset that leads towards reflective teaching.

Step 1: Embed Instructional Coaching Built on a Trusting Relationship

Meaningful professional development begins with the teacher's needs

in mind. When considering teacher agency, teacher ownership of the professional development must be included. Teachers should be encouraged to invite coaches to partner with them, and this partnership should be included as part of the professional development requirement. Teacher buy-in is important for establishing vulnerability. Farndon (2021) maintains that teachers need to "feel safe enough to share their classroom practice honestly" (para. 10) with the coach. This safe feeling comes through relationships and trust. Knight (2011) states that this comes when coaches can use "communication skills" to "empathize, listen, and build trusting relationships" (p. 91). Coaches foster these skills when they actively "listen to teachers' concerns, see and reflect the good they see in them, and work in partnership" so that together, the teacher and coach "identify, learn, and implement practices that enable that teacher to reach more students" (Knight, 2011, p. 92). Knight highlights a key aspect that builds successful coaches - that of first building positive relationships.

An instructional coach should be viewed as a partner who comes alongside to support the teacher through the many challenges of teaching, whether it is the emotional demands, the planning demands, or the instructional demands of the field (Aguilar, Knight, 2011). 2013: Unfortunately, sometimes, coaches may be left to attempt to work with teachers solely through coach observations and then followup so that the coaching relationship begins to feel like an evaluation rather than a partnership (Aguilar, 2013; Turner, 2023). When this happens, teachers will resist the coaching relationship.

In *The Impact Cycle*, Jim Knight (2018) explains that part of partnering with the teacher is finding a "clear picture of reality" so that the coaching is not "off-target" and so that both the coach and the teacher have a clear goal of the coaching need

(p. 27). When a teacher invites a coach to partner with them, the teacher already takes ownership of the development because the teacher takes agency in their growth. The coach and teacher can partner in real-time as practices are established new and implemented in the teacher's classroom through this embedded professional development (Aguilar, 2013; Darling-Hamond et al., 2017; Knight, 2018). This work can be done through conversations with the coach, watching videos with the coach to identify goals in a lesson, and being realistic about what is happening in the classroom (Aguilar, 2013; Darling-Hammond et al., 2017; Knight, 2018). When coaches enter the classroom, they can write what they see and then have follow-up conversations with the teachers. These conversations are not evaluative; rather, they allow the coach to ask questions and the teacher to share goals. Then, the coach and the teacher can discuss what they felt was the reality in the classroom.

That said, teachers will only invite coaches into their classrooms as partners when meaningful relationships exist between the teacher and the coach (Knight, 2011, p. 91). Kraft et al. (2018) establish that for any of these coaching methods to be effective, the first thing that must be established is "the need for teacher buy-in" as this generally "presents a second major challenge" to share their classroom practice honestly with the coach (p. 31). This safe feeling comes through relationships and trust. To ensure a successful coaching relationship and encourage teachers to invite them into the classroom, a coach must first build a relationship of trust, confidentiality, and support (Aguilar, 2018; Turner, 2023). Through conversation, observation in the classroom, and partnership, working with a coach becomes an opportunity for embedded professional development for the teacher. However, without trust and a relationship with the coach, this process is no different from attending a training that was not worth the time.

Step 2: Plan and Implement Lessons in Collaboration.

Having established a basis of trust that instructional coaching will be an integral part of the professional development program, that trust is leveraged to focus on genuinely collaborative efforts to improve practice. The second step in making professional development more meaningful comes from planning and implementing in collaboration with others. This can happen with an instructional coach, a professional learning community team of teachers, or a partner teacher to reflect on lesson design and intent. Regardless, collaboration is a key to growth. Like instructional coaching, collaboration can be embedded into the workday so that it becomes part of the teaching practice.

Knight (2018)notes how collaboration about specific lessons or strategies that teachers want to try can make a difference in the implementation of the strategy. In my coaching practice, this is something I have seen consistently. One teacher shared after a coaching cycle that in her next class, she could immediately see the difference in her student responses because of the inquiry strategy that we co-taught in her class. She explored the inquiry strategy because of her conversation with me, as her coach, about how she wanted students to engage with the text. Together, we identified this strategy, planned it, and taught it. She left feeling empowered to implement the strategy in another lesson and saw her students diving deeper into their classroom work. She also left knowing that she was not alone in developing this teaching practice as she followed up in her future planning to seek her own misconceptions in using the strategy with her students. However, planning and

implementing work from professional development can happen in modes that are not exclusive to instructional coaching.

In 2015 and again in 2019, I had the opportunity to participate as a Teacher Consultant and then a Site Coordinator for the College, Career, Community Writing Program (C3WP) as part of a grant study that was sponsored by the National Writing Project (NWP). Through this grant cycle, professional development was delivered to districts through teacher consultants, such as myself, to utilize current best practice research for argument writing (LeMahieu, 2020). It was quickly found that the consultants also needed support for this work to be successful in the classrooms. The consultants leading the training needed more than their experience in the National Writing Project to meet the goals of the grant. Overall, teachers in participating schools were to be given Teacher Consultants who came alongside them to teach them lessons and strategies that were the foundation of the "cycles of instruction" developed as part of the grant (Friederich et al., 2018, p. 20). Through this partnership, I learned that every layer of professional development needs support and partnership. Whether it is the coach who collaborates with other coaches leaders or the participant who and collaborates with a coach for professional development to meet the needs of its participants, everyone requires support. Some of this support happened in workshops outside of the regular school day, but much of the support occurred side-by-side in classrooms after planning and working together on lessons. When work is planned and implemented together, it is more meaningful, more intentional, and benefits the teacher and the students more effectively.

Another example of collaboration is teachers working together to plan and implement a lesson study. In the lesson study, teachers design a lesson together by

establishing a goal or skill they need to focus on with their students (Fernandez, 2002; Lewis, 2009). Through the planning process, teachers must consider how they frame their learning goals, what assessments will be used, how they will present content, how they make that content engaging. will expectations, classroom relationships, and their own high expectations (Marzano, 2017). Then, teachers rotate to watch each other teach the lesson, immediately reflect on the lesson, revise the lesson, watch another teacher teach the lesson, work together to reflect and revise the lesson and teach the lesson again with a final reflection before putting the lesson strategy into an ongoing practice. Fernandez (2002) explains that "teachers will create a modified version of the lesson plan that reflects all the changes that, based on their classroom observations, they have decided to make to the design of the lesson" (p. 394). The action steps that make a lesson study effective are cyclical, following a study, plan, teach, and then reflect cycle of continuous improvement (Lewis, 2009, p. 97). This professional development allows teachers to collaborate, reflect, model, and be active in learning, and it occurs over a sustained duration. The instructional coach may be asked to partner in the lesson study process to offer coaching/expert advice. Lewis (2009) notes that the lesson study is a specifically strong teachers to learn through wav for collaboration because they may "attend to various features beyond those captured by video or case" in watching each other (p. 98). This is another way of encouraging teachers to plan and implement lessons together, as recommended by step two, for professional development and improved instruction.

Considering these examples, teachers need a space for collaboration. That space happens effectively through the Professional Learning Community (PLC) model (Dufour et al., 2020). When teachers come together as a PLC, they work together to ensure that student learning is taking place. They ask the four key questions of a PLC, which are as follows: what do students need to know; how will I know that they know it; what will I do when they do (know the material); what will I do if they do not know the material (Dufour et al., 2020). As a team, they work together to answer each of these questions so that their instruction is built upon the framework set forth by Marzano (2017), which considers their expectations, assessments, teaching strategies, and follow-up. The key to the PLC model, though, is that teachers collaborate.

This idea of planning and implementing lessons together is supported by John Hattie (2023), who notes that collective teacher efficacy or working together to impact student learning has one of the highest impacts on the school, with an effect size of d=1.34. That collaboration brings growth and allows teachers the space to plan, implement, and improve together.

Step 3: Growth Mindset through Reflective Teaching

Finally, the third step towards professional development is effective building a growth mindset through reflective teaching. Carol Dweck (2016) offered two types of mindsets for individuals: the growth mindset and the fixed mindset. Often, this is used to show teachers a way of viewing students so that they can see their students as people who can and will grow. However, it is also a tool for teachers to think about their own instruction and teaching habits. Dweck (2016) explained that the fixed mindset belief offers a limited amount of intelligence or capability that a person has. Meanwhile, the growth mindset frame says that individuals can learn and improve from what they have previously done by "stretching yourself and sticking to it" (p. 15).

As part of growth, teachers reflect upon what went well and where they can improve their lesson structure. Similarly, Farrell (2020) explained that reflective teaching means that teachers not only consider what they do in their lessons but also why they did it. As teachers examine what and why that is taking place in the classroom, they are given the opportunity to consider new teaching practices to explore. This could happen with the instructional coach, or it could happen through the Professional Learning Community. One of the strongest examples I experienced of growth through reflective teaching came through a shared teacher journal. During my first years in the classroom, I worked with a group of teachers who shared a journal. After a lesson or two. the teacher would write in the journal what went well, where they struggled, and what they wished was different. Then, the journal was passed to the next teacher. That teacher responded to the previous teacher and added their own reflections. The journal was shared for most of the school year with the same content teachers and built an honest bond of reflective teaching.

When teachers reflect upon one year and look to the next to try a new strategy or implement a researched methodology. teachers take agency in their development. In seeing the teaching strategy or in looking back at the previous year, teachers allow themselves the space to grow. If teachers are given space at the end of the year to reflect on what they did in their classroom, then they can intentionally decide what they need to make the following year more successful. Rather than offering teachers time to listen to a trainer talk to them about a practice that is broadly aimed as a catch-all development opportunity, allow them time to determine what they need and then provide training either in small groups or individually to help meet those needs.

Conclusion

Whether a teacher has been in the classroom for one year or twenty years, there are still ways to grow. Professional development programs should be implemented by offering teachers three steps wherein the following are accomplished:

 embedded instructional coaching that is built on a trusting relationship
 teachers working together to plan and implement lessons in collaboration with other teachers

(3) teachers fostering a growth mindset through reflective teaching.

In following these three steps, teachers take agency over their instruction and become more intentional and impactful in their instruction. Each of these professional development options is embedded in the work of the classroom and allows teachers to grow in their context. When teachers are left to one-size-fits-all professional development, they walk away without meaningful plans or goals for their own instruction. It is time to move away from multiple days of one-sizefits-all professional development and embrace teachers where they are so that they can grow in ways that are meaningful to them.

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