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Impact of Coaching on Teacher Development and Student Achievement

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Impact of Coaching on Teacher Development and Student Achievement

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Dedication

To my friends and family: Thank you for the support, encouragement, flexibility, and patience

expressed during this endeavor. I appreciate you all for assisting me in this accomplishment.

Table of Contents

Abstract

This paper examined research on the job-embedded professional development (PD) of teacher coaching. It offered insights into which aspects of a coaching program are the most effective in positively influencing teacher efficacy and student development. Research focusing on the characteristics of coaches, coaching in various educational settings, and different coaching models were explored. The studies occurred at schools throughout the world and included students from elementary through high school. The teachers and coaches had varying years of experience and represented many grade levels and subjects. From the studies, researchers determined a few key attributes successful coaches possess. Additionally, the studies concluded that schools utilize many coaching models effectively in several different environments. These insights revealed that relationships between coaches and teachers influence the outcome of a coaching program, the resources available limit the models used, and successful coaching in various locations. This discernment can aid educational leaders in developing and implementing a coaching program. Further research on the cost-benefits of coaching, coach training, and the plausibility of scaling up the programming needs investigation.

Keywords: coaching, professional development, teacher efficacy

Impact of Coaching on Teacher Development and Student Achievement

Chapter One: Introduction

As school winds down, one of the most anticipated questions for teachers is what the upcoming school year's calendar looks like and when it will be released. Unfortunately, this is not in enthusiasm for scheduling the engaging and perceptive activities, projects, and assessments they have crafted. Rather, it is to see how many days they will not have student contact. Excitement percolates as the count of days off increases, and then the punch in the gut occurs when they notice the small print of staff development next to many of the dates. The downward spiral continues as they start contemplating the next "new" initiative, the support it receives, and whether it will be sustained long-term. Thoughts divulge back to the significant investment of time and energy forfeited on ineffective strategies of the past.

According to *The MIRAGE: Confronting the Hard Truth About Our Quest for Teacher Development* (2015), "After a little more than a decade in the classroom, an average teacher will have spent the equivalent of more than a full school year on development" (p. 2). Additionally, the districts they studied spent an average of $18,000 per teacher per year, which is between 6 and 9 percent of their annual budgets, on teacher development (Jacob & McGovern, 2015). Due to the limited finances, many schools face and their desire to improve teacher efficacy, it is necessary to ensure that the time and money allocated toward evidence-based professional development (PD) is proven effective for the students and the staff. A trend many districts have turned to is coaching.

Data collected by the National Center for Education Statistics (NCES) School Pulse Panel in December of 2023 indicated that "59 percent of public schools that have one or more instructional coaches working at their school, 42 percent reported that they have added

instructional coach positions since the 2019-20 school year" (*School Pulse Panel - Interactive Results*, 2024). They have adopted this strategy because, according to Kraft and Blazar (2022), "With coaching, the quality of teachers' instruction improves by as much as—or more than—the difference in effectiveness between a novice and a teacher with five to 10 years of experience, a more positive estimated effect than traditional PD and most other school-based interventions" (para. 4). This significant finding is a true testament to the effectiveness of coaching. However, to achieve success through coaching, it is important to understand how the implementation characteristics, teacher group focus, and student demographics can affect the program.

Importance of the Topic

Topics of concern for schools include ineffective teaching that can put children behind their peers and teacher retention. The further students fall behind, the more difficult it is for them to be successful in school. Lu and Groves's (n.d.) research indicated "most students with early low performance are at risk of not meeting learning standards throughout their schooling with the support they currently get" (para. 4), which can negatively affect their desire or opportunity to work towards and achieve graduation. Inadequate instruction may result from staff needing support with the training and tools they require to address difficulties they are experiencing in the classroom. If they do not receive this support, they may continue to struggle or leave the school, which leads to increased costs due to rehiring and training. These issues negatively impact student development and learning and consequently need addressing. In response, many schools have instituted teacher coaching in an effort to manage these challenges.

The report *Taking Teacher Coaching to Scale* (2022) quantified that coaching significantly impacts instructional practice and student achievement. The work exhibited "on average, coaching improves the quality of teachers' instruction and its effects on student

achievement by 0.49 standard deviations and 0.18 standard deviations, respectively" (para.14). In both categories, the measures of the impact of coaching meet or surpass the largest published estimates of the difference in performance between a novice and experienced teacher. However, desiring one thing and putting it into practice can be challenging. The study *Teachers Know Best: Teacher's Views on Professional Development* (2014) found when local educational agency's professional development leaders were asked, "If it were totally up to you, do you believe your district should deliver more or less PD to teachers relative to the current amount?" coaching had a net score of 82 (calculated using Net Promoter Score methodology). This score was the second highest among the categories listed, indicating the desire to utilize coaching. However, when teachers were asked, "Overall, how would you rate your satisfaction with the PD offered to teachers in your school district/school?" coaching came in at -6 on the same scale. This wide variance indicates that the districts have confidence in employing this strategy with their staff, but its administration needs to be more effective. Therefore, reviewing different coaching approaches is necessary to ascertain the most functional methods for their circumstances.

Furthermore, the report revealed the majority of coaching focuses on new and struggling teachers, and there was a high variance in frequency of it. In fact, less than half of teachers were involved in coaching services; of those, only about 25% received them weekly or more (Boston et al. & Bill & Melinda Gates Foundation, 2014). The data exhibited a biased delivery of the strategy and, as a result, did not continue to develop the teachers with more years of experience. This result is impactful because, according to Jacob and McGovern (2015):

> Substantial improvement seems especially difficult to achieve after a teacher's first few
> years in the classroom; the difference in performance between an average first-year

teacher and an average fifth-year teacher was more than nine times the difference

between an average fifth-year teacher and an average twentieth-year teacher. (p. 2)

It is imperative to determine the foundations of what successful programs are built upon so

leaders can fabricate them to develop the teachers in their district.

Research Question

In light of what is known about pedagogy in the contemporary educational setting, how

can school leadership determine which aspects of a coaching program are the most effective in

positively influencing teacher and student development? Educational leaders desire to create an

atmosphere where the delivery of instruction best meets the needs of the students they serve.

Student needs are ever evolving, and it is often necessary to provide additional support to meet

them. As they are no longer present in the classroom, leaders must ensure they are equipping

teachers and staff with the resources necessary to deliver the best education practices.

This research is also in accord with Concordia University, St. Paul's Educational

Leadership Program's Essential Question: "In light of what is known about pedagogy in the

contemporary educational setting, how shall educators lead equitably and inclusively in order to

positively impact student development and learning?" It is up to the educational leaders to decide

which course of action best provides personnel with equitable and inclusive strategies that

impact teacher and student growth and development. This study examined the success of

different models of coaching and the effectiveness they had in a variety of educational settings.

Additionally, it analyzed the positive characteristics of what teachers value in a coach.

Scope of Research

The research utilized throughout this review occurred in a variety of settings and focused

on different aspects of coaching. Participants in the studies had varying levels of experience,

subject matter, grades taught, and backgrounds. The study methods included quantitative, qualitative, and mixed methods, providing different coaching perspectives. This widespread approach intentionally discovered where coaching can be effective and what contributes to the program's success. Some studies provided data to confirm successful coaching can occur in many environments. Others explored different models of coaching and their effectiveness. Lastly, a selection of articles focused on the perceptions of coaches and what characteristics teachers valued in them. Not all areas in the research were analyzed. The particular components of successful models were not broken down, nor was the optimal time to engage in the coaching practice measured.

Definition of Terms

Professional Development (PD) refers to learning experiences that take place within the classroom or school and relate directly to issues of practice (Knight & Skrtic, 2020).

Coaching includes job-embedded, individualized, sustained support to promote enduring changes in classroom practices and student learning and behavior (Reddy et al., 2020).

Teacher Efficacy is a personal analysis of their abilities to encourage and promote success on desired outcomes of student classroom management, student engagement, and instruction (Walsh et al., 2020).

Conclusion

Coaching as a strategic developmental tool has been implemented in many settings to assist educators in obtaining the desired knowledge and strategies to adapt their instruction. However, the characteristics of the coaches and teachers, the conditions when introducing programs, and the frequency of coaching all impact teacher maturation and student achievement. It is essential to review these aspects to assess their value within the process of coaching

administration. As Marguerite Roza, a scholar at the Center on Reinventing Public Education at the University of Washington in Bothell, stated, "There's a sense that teacher effectiveness matters, and we've got to help teachers improve in effectiveness, but we don't necessarily know how," (Sawchuk, 2020, para. 4). This paper will review multiple studies of academic coaching and construct themes to determine the most effective components to guide administrators in building and supporting their programs.

Chapter 2: Literature Review

According to the NCES, nearly 48.7% of the public schools in the United States had staff with a coaching assignment (National Center for Education Statistics, n.d.). Some coaches focused on one subject, such as reading, science, or mathematics, but the majority were general instruction and not assigned to specific content. Due to the resources allocated to this method of professional development, the most impactful strategies for student achievement and teacher efficacy were researched and reviewed. Multiple models have been used to implement coaching in different learning environments, and while some have been successful, others have struggled to achieve the desired results. This literature review intended to examine the research conducted on coaching and extract the key attributes impacting each program's effectiveness. The analysis results identified three main themes that influenced the effectuality of coaching initiatives. First to be considered are the positive characteristics of coaches, which, through evaluation, determine what teachers value most when working with them. Following this consideration is surveying coaching programs and their effectivity at various schools and settings. Lastly, identifying the different models of delivery utilized and their effectiveness on student achievement and teacher efficacy were compared. These themes worked together to create a picture of what is required when leaders develop a model coaching program.

The first theme was established by exploring five investigations led by Hammond and Moore (2018), Marsh et al. (2015), Stoetzel and Taylor-Marshall (2022), Vanderburg and Stephens (2010), and Woodward and Thoma (2020). Examination of successful coaching models that improved teacher efficacy led them to identify the positive characteristics teachers found desirable. They concluded that certain traits of coaches were attributed to teachers' optimism and led to constructive results.

The second theme was discerned through the research of Garcia et al. (2013), Kraft and Blazar (2016), Reddy et al. (2020), Teemant (2013), and Walsh et al. (2020). Their work studied the impact of coaching in specific educational settings. The environments studied included urban and rural areas and schools with different demographic makeups of teachers and students. The majority of findings supported coaching as a fruitful method of professional development, regardless of the location or composition of the school.

The third theme was ascertained from four studies by Canaran (2023), Carson et al. (2021), D. Knight et al. (2018), D. S. Knight and Skrtic (2020), and Nugent et al. (2018). These studies analyzed the effectiveness of different models of coaching delivery. Their research concluded that many modes of coaching can be employed, which results in beneficial outcomes.

Characteristics of Coaches Valued by Teachers

Around the world, a variety of coaching models and implementation strategies are in use. Some focus on new or struggling teachers, while others are all-encompassing and work with the whole staff. Nevertheless, the teachers who had the most success with this job-embedded professional development identified characteristics of the coaches they valued most. In order to gain a better understanding of achievement, it is essential to examine the background of the coaches and why they were effective. Extracting these important traits and incorporating them into the training and selection of coaches will increase the likelihood of success in a coaching program.

Identifying what coaches did that teachers found helpful and how their beliefs and practices changed because of coaching was the focus of a qualitative study done by Vanderburg and Stephens (2010). The 35 participants were preschool to fifth-grade teachers from across South Carolina who had been a part of the South Carolina Reading Initiative (SCRI). They

represented districts with a mix of high and low socioeconomic statuses and had experience

ranging from first year to more than 25 years. Coaches facilitated bi-monthly study groups with

teachers for the three years the SCRI was conducted. They then spent four days in their

classrooms to assist them in implementing the strategies studied. Following this, researchers

interviewed the teachers about the impact of SCRI on their beliefs and practices to determine

what factors contributed to the favorable changes.

Three significant attributes extracted from the data concerning what teachers found most

valuable in their time with a coach came to light. The first is creating ways for teachers to be

collaborative. Opportunities to learn about each other and students and share thoughts and

strategies resulted in a stronger sense of school community. Secondly, they provided ongoing

support by being encouragers, facilitators, and demonstrators. The third is eliciting a solid

knowledge base by being able to teach about research-based strategies. Though the teachers in

the study felt the coaches helped them develop a sense of agency, some limitations exist. It is

important to consider that the participants were all volunteers so they may have been more

engaged in the study, and the interview questions did not specifically address the research of this

study.

An exploratory qualitative study by Marsh et al. (2015) examined how working with a

coach or professional learning community (PLC) shaped teachers' responses to data and the

factors influencing the activities and effects of coaches and PLCs. It was a year-long

comparative case study of six low-performing middle schools in four districts utilizing coaches

and PLCs to support teacher data. Additional required characteristics were that the programs had

to have been established for a minimum of two years and comprised of coaches with a variety of

content expertise. The case study utilized interviews with four coaches, a PLC lead, 14 teachers

who received coaching, three members of the PLC, and school administrators. Three of the districts were medium-sized and resided in the same state. The fourth was quite a bit larger and in another state, but all had failed to meet state accountability targets over multiple years.

They determined that coaches and PLCs had a positive impact on teachers' responses to the use of data to alter instruction. Key findings found a direct relationship between vertical and horizontal expertise, which contributed to the depth of changes in pedagogy, comparable to what Vanderburg and Stephens (2010) found. In conjunction with this, successful coaches' interpersonal skills and knowledge of adult learning were integral characteristics. This expertise was imperative in coach-teacher interactions that led to the development of long-term changes in instructions. The research concluded administrators should consider the types of expertise required when recruiting coaches and designing the development for them and teacher leaders.

The study by Hammond and Moore (2018) took place at a Western Australian primary school and measured the impact of directive coaching on instructional practices. The teacher sample included two in their first year of teaching and eight with five or more years of experience. The researchers selected three administrators with at least eight years of teaching experience to coach teachers outside their management. They used quantitative data to measure a teacher's demonstration of explicit instruction lesson design. This information was combined with interview transcripts to give feedback on being coached and their feelings of self-efficacy.

Teachers were given professional development before entering the coaching process. Before coaching began, researchers interviewed participants about their perceptions of coaching and being coached. The coaching phase occurred over a few months, and the coaches collected numerical data from five observations. The researchers then scored the data based on the

inclusion of elements from the explicit instruction model. Lastly, they conducted post-interviews to record changes in attitudes and what contributed to them.

Although the teachers were apprehensive about engaging in coaching, they were willing to try it and displayed appreciable change. The results were positive, as indicated by the mean lesson score increasing throughout the coaching sessions and the viewpoints expressed through the surveys. Noteworthy components of coaching expressed through the interviews include the coach's demeanor, communication, and expertise. In order to build trust, the coach needs to display a good "bedside" manner by focusing on tone and being suggestive rather than directive, which aids in collaboration. To gain confidence and support, they need to embody the description of a coach by displaying horizontal and vertical expertise, as also noted by Marsh et al. (2015) and Vanderburg and Stephens (2010). Through this, they provided data-rich feedback to help in lesson design and modeling. The study only represented one school setting, but it had measurable positive results and helped identify the attributes responsible for their success.

In divergence of considering the compelling qualities of coaches, Woodward and Thoma (2020) explored the perceptions of literacy coaches to garner a conception of the best practices of instructional coaching. Their qualitative study examined districts in Iowa that had received funding from the teacher leadership compensation system (TLS). They developed surveys to gain insight into their perceptions of role description, support for literacy coaches, and coaching activities. They administered them to 812 teachers, 89 teacher leaders, and 41 administrators. Additionally, 15 participants chosen from six different school districts representing various sizes, locations, and differing years of TLS support partook in interviews. These participants included ten teacher leaders, three administrators, and two teachers.

Results of the surveys and interviews indicated confusion in the role and expectations of a literacy coach. Additionally, it revealed that although the majority felt comfortable getting assistance, only 59.2% engaged in the practice. Finally, it found a contradiction in the depth and breadth of preparedness for the role and the importance of classroom experience. In conclusion, the study showed that those who understood the role were more likely to engage in coaching. It also aligned with the findings of Marsh et al. (2015), Vanderburg and Stephens (2010), and Hammond and Moore (2018) that knowledge of adult learning theory and foundational knowledge of literacy, curriculum, and instruction are more integral in a coach than just classroom experience. The study provided evidence clarifying the role and identifying the characteristics of an effective literacy coach, which helps establish a thoughtfully designed literacy coaching program.

Another crucial component in establishing a coaching program is investigating how to develop and support the coaches leading it. Stoetzel and Taylor-Marshall (2022) used qualitative methods to conceptualize change within a coaching program. Individuals who had completed the Student-Centered Coaching Program were eligible to participate in the study and did so voluntarily. Eight participants worked in some form of coaching. Five were from the United States, two from Brazil, one from Jordan, and one from Columbia. They collected data through interviews and a learning artifact in which they identified their core values and applications to practice.

The data analysis led to four themes describing the beliefs and values of the coaches. They included centering instructional design on the students, having a collaborative approach, embracing a learning stance, and being a leader for change. To develop these themes further, they deduced that it is important to facilitate authentic learning opportunities for coaches. These

need to focus on reflection, rehearsing, and applying knowledge to practice developing their understanding of what it means to coach for change. In conclusion, the study revealed how reflection and analysis activities can effectively foster more equity-oriented coaching identities, regardless of the coaching model. As a result, in developing a quality coaching program, it is necessary to include a methodology for continuing the evolution of the coaches.

Overall, the research conducted by Hammond and Moore (2018), Marsh et al. (2015), Stoetzel and Taylor-Marshall (2022), Vanderburg and Stephens (2010), and Woodward and Thoma (2020) provides insight into what contributes to a successful coach. The qualities of horizontal and vertical expertise, knowledge of adult learning, and interpersonal skills emerged for these coaches. Coaches also requiring continual development to stay relevant, was also revealed. However, this is only one component of the overall strategy leaders must examine when developing a coaching program. It is imperative to understand how the differences in educational settings can play a role in the effectiveness of coaching.

Impact of Coaching in Specific Educational Settings

Age, economic background, and culture are variables that may have an impact on determining whether coaching is a proper initiative for a school to implement. These variables are essential to note as schools are diverse and can comprise different student and teacher populations. Therefore, it is necessary to explore a variety of institutions from different areas to gain an understanding of practicality for the consideration of implementing a coaching program.

A longitudinal mixed-methods study by Teemant (2013) evaluated the efficacy and sustainability of instructional coaching outcomes among urban elementary teachers. The study used focus groups and quantitative pre-, post-, and one-year-after-intervention work data to assess an instructional coaching intervention uniquely designed for urban teachers of low-

income, multilingual, and multicultural students located in a large city with high economic

disparities, limited resources, high mobility rates, and teachers who commute into the schools

where they teach. The intervention, built upon the sociocultural theory, enables teachers and

students from different backgrounds to create a relationship in which they appreciate the worth

of learning based on social, cultural, and historical processes. Using the Standards for Effective

Pedagogy (five standards) as an instructional model and the Standards Performance Continuum

(SPC) to quantitatively measure fidelity, the study investigated teacher growth and

responsiveness to (a) validate the efficacy of the instructional model using quantitative data with

the control group and (b) extend understanding of the sustainability of teacher change using

quantitative and qualitative evidence.

Similar to Hammond and Moore (2018) mentioned above, teachers participated in a

university workshop teaching about sociocultural theory, the five standards model, and the SPC

observation rubric. Then, there was a twelve-week phase-in process of small group activity

centers. They participated in seven individual coaching sessions with an externally hired

instructional coach throughout the year. There were 36 K-6 elementary teachers, predominantly

white and female, in the participating pool with an average age of 45 and 16.5 years of teaching

experience. The students were predominantly Hispanic and African American, and 95% of the

study population were on free/reduced lunch.

The study results showed that teachers who received coaching implemented the five

standards instructional model at the highest or integrating level of fidelity and sustained the

significant change a year after coaching but at a lower or enacting level of fidelity. Limitations of

the study included using an external coach from the school system, high inter-rater reliability for

the SPC by the instructional coach and raters, and a need for qualitative methods such as video or audio taping to determine what coaches do and how they assist teacher development.

Also taking place in an urban setting with elementary students is a study by Reddy, Lekwa, and Shernoff (2020). It researched the effects of data-driven coaching utilizing observational assessment and performance feedback on general education teacher versus special education teacher practices and student outcomes in high-poverty urban elementary schools in a Northeastern state. Participants included 106 kindergarten through fifth-grade teachers randomly assigned to a coaching or waitlist control group. The mix included 85 teachers certified in general education and 21 certified in special education. Before any coaching, observation of evidence-based instructional and behavior management practices occurred with the sets of teachers. They worked cooperatively in general education settings within a district that has adopted an inclusive model of special education delivery and divided the instructional responsibilities. MA-level school practitioners or advanced graduate students with prior experience in high-poverty elementary schools supervised the twelve coaches hired. The student body consisted of 2,195 students, of which 41% were Black, 32% were Latinx, 12% were Asian, 12% were European American, and 3% were Native American, multicultural, or other. Approximately 80% of the students in the district qualified for free or reduced lunch.

The quantitative study utilized a baseline assessment, coaching using the Classroom Strategies Coaching Model from late fall to spring, and post-assessment. Overall, both groups of teachers showed significantly improved instructional and behavior management practices and student outcomes compared to teachers in the control group. The study's constraints include the teachers being predominantly European-American females, detailed information on credentials not being collected, and the study being in a district committed to inclusive instruction.

Similar to the environments of the first two studies but involving a different age group, Kraft and Blazar (2016) analyzed the impact of MATCH Teacher Coaching. This mixed methods study investigated a cohort of teachers working in New Orleans charter schools and how coaching affected their instructional strategies. The research used a sample of 59 teachers, with 27% in their first or second year, 42% in their third or fourth year, and 31% in their fifth year or higher. 76% of those selected entered teaching through an alternative licensure program and were more likely to be female and White. The 24 teachers selected for the non-control group participated in roughly 50 hours of training with coaches throughout the academic year.

Kraft and Blazar (2016) found that teachers who received coaching showed greater gains in effectiveness compared to those randomly assigned to a control group. In comparing different grade levels or subjects taught, there were no considerable differences in the positive effect of the coaching program. These results reflect the generalization that coaching can span multiple demographics of teachers. The study concluded that although the program proved effective, the results are subject to, alternatively, certified teachers who worked with a specific population and were willing to participate in a coaching program. It also raised the question of if the effectiveness of the program could be maintained if taken to scale.

Expanding the scope of the setting and sample size was considered in research on the impacts of instructional coaching on teacher efficacy by Walsh, Ginger, and Akhavan (2020) at a mid-sized California school district. It is located in the central part and serves urban, suburban, and rural areas for nearly 16,000 ethnically, racially, linguistically, and socio-economically diverse students. Using a Likert-type survey including questions from the short form of Tshcannen-Moran and Woolfolk Hoy's *Teachers' Sense of Efficacy Scale* as an assessment tool, they evaluated the perceived use of instructional coaching and teacher efficacy in the areas of

classroom management, student engagement, and instruction. A district-level pool of current classroom teachers who displayed pedagogical expertise in district initiatives were selected as coaches and considered teachers on special assignments without an assigned student class load. There were 157 PreK through sixth-grade teachers, and the years of teaching included 16% at 0-3 years, 18% at 4-9 years, 23% at 10-14 years, and 43% had more than 15 years of experience.

Findings showed a significant relationship between the perceived impact of instructional coaching and overall teacher efficacy by years of service. The qualitative questions helped define the quantitative results by asserting that the perception of coaching is beneficial in providing strategies that need immediate implementation. Overall, the study confirmed that the power of coaching can be very beneficial for willing participants, such as newly hired teachers. However, veteran teachers may need something different to make it meaningful. Possible limiting factors could include less than half of the teachers who had received coaching responding to the survey and only including elementary teachers.

In contrast to the student population of the first few studies, comparing two middle schools to determine if the presence or absence of instructional coaches had an impact on student achievement was the purpose of the quantitative pre-experimental study by (Garcia et al., 2013). They used data from the Texas Assessment of Knowledge and Skills to compare two schools of similar enrollment, racial makeup, and socioeconomic distribution near the United States/Mexico border. The scores of the 6th-grade math and reading, 7th-grade math, reading, and writing, and 8th-grade math, reading, science, and social studies were analyzed using a multivariate analysis of variance statistical analysis.

Results showed the only positive difference in the content area that used instructional coaches was within the 7th-grade writing test. However, the researcher did not consider the

effectiveness of professional development coaches received, the amount of coaching prescribed, or the perception of coaching effectiveness based on the educational and teaching background of the coach. There were significant differences in the presence or absence of coaches, so additional quantitative and qualitative studies must be conducted.

Regardless of the location, demographics, grade levels, and subjects taught, these studies showed coaching had an impact within a variety of educational settings. The combined data exhibited increases in teacher efficacy, gains of effectiveness, and improved instructional and behavior management practices. Still, the different models of coaching also need to be evaluated by leaders to assist them in determining what may be best for their stakeholders.

Effectiveness of Models of Coaching Delivery

Models of coaching have gone through many iterations, and school leaders need to understand which ones have been successful. However, it is also relevant to analyze the resources they currently possess or will have the ability to obtain regarding staff, finances, and technology. Therefore, acquiring knowledge of different models allows them to develop programs to function within their constraints.

A qualitative study conducted by Carson and Choppin (2021) explored an innovative coaching model termed video-based online video coaching. Using robot-enabled video recordings of lessons, they studied nine mathematics coaches who engaged with teachers from geographically distant, rural contexts over four years. The nine coaches were selected based on their experience as in-person coaches, and the 18 teachers all instructed middle-grade mathematics. They adapted a content-focused coaching model entailing collaborative plan-teach-reflection cycles and employed synchronous and asynchronous components.

For the online model, coaches and teachers co-planned a lesson using Zoom, teachers recorded themselves teaching the lesson, coaches, and teachers viewed and annotated the lesson, and lastly, they met via Zoom for a post-lesson reflection meeting. Focus was placed on the coaches' practices in each part of the coaching cycle by analyzing interviews, surveys, annotations of the video, and transcripts from planning and debriefing sessions. Their findings showed that the online platform is an effective tool for implementing coaching and creates opportunities for teacher reflection and evidence-based discussions. In addition, it showed geographically distant teachers can gain access to experienced coaches. Though the study detailed the coaches' credentials relating to mathematics teaching and coaching experience, it did not discuss the backgrounds of the teachers who took part in the study, which is a limiting factor.

Also, using Zoom as a platform to engage in online peer coaching (OPC), like Carson and Choppin (2021) above, was the research performed by Canaran (2023). The study attempted to describe how teacher educators perceived and reacted to OPC during the pandemic. It took place over 20 weeks in Turkey during the COVID-19 outbreak of 2021, while all teaching and learning was remote. The participants were two females from a private university's English Language and Education Department with 13 and 15 years of teaching experience. They had never taught remote courses or participated in online collaborative professional development. Reflective reports and semi-structured interviews were analyzed to acquire qualitative results.

Results indicated benefits and challenges with respect to professional development through the use of OPC. The three benefits included improved practice, reflection on teaching, and enhanced well-being. Additionally, they noted relatively higher student engagement from students during lessons created through peer coaching. The challenges identified were the inability to give constructive feedback and the limited communication types with students.

Lastly, there was a discussion of the recommendations for future OPC. Participants pointed out that lessening the amount of work required would aid in making the experience more practical and less tiring. They also indicated that they should ensure their peers are personally and professionally compatible. Overall, recommendations to use OPC in the future with other faculties to form communities of practice which, with the aid of technology, can be expanded to include countries around the world.

Utilizing technology to work across distances, Nugent et al. (2018) investigated coaching as a support to other professional development. Their quantitative study included 124 teachers from 110 rural middle and high schools in two Midwestern states. The mean years of teaching was 12.8, and they were predominantly white. Similar to the research by Hammond and Moore (2018) and Teemant (2013) discussed above, the subjects participated in a two-week evidence-based summer institute but remotely delivered coaching during the school year. Results displayed a significant difference between the treatment and control groups in practice knowledge, performance, beliefs, and self-efficacy. The coaching proved to build on the foundation of the newly learned instructional practices and provided the support to deliver in the classroom. Additionally, this hybrid process helped identify the specific outcomes coaching can impact. This data ensures the validity of this study and the effectiveness of this alternative use of coaching.

With similar aspects to the first two articles by Nugent et al. (2018) and Carson and Choppin (2021) above, D. Knight et al. (2018) examined a model beginning with separate professional development and employed the evaluation of video recordings. It studied four instructional coaches with 5-12 years of teaching experience, each working with two teachers

with 1-8 years of experience in a middle school setting. The collaborating teachers filmed themselves to exhibit their teaching practices, which a coach then reviewed.

This quantitative study identified an increase of 11.1 % in student engagement during class, and teachers made an average gain of 44.3% in their specifically chosen focus area. The researchers evaluated the method through a multiple baseline study, and it was determined to be associated with an increased use of effective pedagogical practices and greater student engagement in the classroom. The significant increases are evidence of the effectiveness of this method of coaching. However, they identified cost considerations as a potential obstacle to scaling it up for a school as it is more expensive than traditional professional development.

Relating to cost, a quantitative study by Knight and Skrtic (2020) assessed the cost-effectiveness of instructional coaching through a design-based, continuous improvement research model. They used iterative inquiry cycles in which educators collected data and made changes to the coaching model in each round of implementation. To determine the effectiveness of coaching, they tracked the number of times teachers and coaches achieved student outcome-based goals during each coaching cycle. The cost of implementing the coaching model was determined by monitoring staff time allocations and other resource use during each iteration.

The coaches participating in the study received training in effective teaching strategies. They worked collaboratively with teachers to give guidance on setting, tracking, and reflecting on goals, as well as providing tools to help teachers reach their goals. Aside from these features, the model was adaptive to the local context. The study took place at a school district of about 4,000 students in the Pacific Northwest, employing instructional coaches. Coaches from four elementary schools and one middle school were selected based on a recommendation from the assistant superintendent and teachers identified through volunteering, coach solicitation, and the

principal supporting a particular coach-teacher collaboration. Within the student body, 87% identify as Latinx, 12% as White, 1% as another race/ethnicity, and 80% qualified for free or reduced lunch. The results showed school leaders can work to improve the cost-effectiveness of coaching models over time as teachers and coaches refine their work together. Due to the specific design features, challenges include the limited generalizability of the study, the district experiencing enrollment growth and demographic change, and the teachers involved in the study felt they were supported and had adequate access to resources.

The method of delivery can have an impact on the effectiveness of instructional coaching, especially regarding teacher efficacy. Newer technology afforded the opportunity of coaching to teachers who would otherwise not have access to it based on their location and proved to be a viable model. Refining the coaching based on feedback from teachers after set cycles led to improvements in the cost-effectiveness of coaching over time and, therefore, was also successful. In two studies, the coaches were district employees, whereas one used external coaching. The effect was split as to effectiveness, so the model of delivery had a greater impact than the employer of the coach. However, access to technology may be a limiting factor in some districts, where others may need more finances to hire external coaches. In addition to using different strategies, these successful models occurred within various settings.

Review of the Proposed Problem

The impetus of this investigation emerged from considering how school leadership can determine which aspects of a coaching program are the most effective in positively influencing teacher and student development in a contemporary setting. The intent was to analyze coaching models in several settings and extract the components contributing to their success. Additionally, determining the characteristics of coaches teachers valued most was desired. Through this

exploration, school leaders could use the findings to design and implement a coaching program with teacher support that will thrive within their unique structure.

Review of the Importance of the Topic

Districts and teachers devote a lot of resources and time to professional development with the desire to increase student achievement. Therefore, investing in successful evidence-based practices is crucial. The findings of Kraft et al. (2018) affirm the potential of coaching as a developmental tool. However, to implement coaching, teachers not only need to buy into the programming, but they also need to be supported. Additionally, schools exist in several settings, they have diverse student and teacher populations, and there are a number of coaching models to choose from. In order to instill a fruitful coaching program, educational leaders need to gain an understanding of which attributes positively and equitably contribute to it and then develop one based on these findings.

Summary of Findings

Reviewing the previous literature led to concepts present in successful coaching programs. They revealed teachers valued coaches who displayed horizontal and vertical expertise, knowledge of adult learning, and interpersonal skills. When coaches possessed these characteristics, teachers invested in the program and were willing to change their methods. As a result, student achievement increased. Additionally, the studies provided evidence of coaching being effective in a variety of settings and populations. This evidence proves relevant when examining the students and teachers of an environment to determine if coaching would be a viable strategy to employ. Lastly, they concluded that there are many successful coaching models for administering in a school regardless of location or resources. Technology can help overcome isolation, and the external hiring of coaches can occur if developing them from within

is challenging or impossible. However, financial constraints will influence what can be reasonably acquired and sustained.

Conclusion

Analysis of the above research led to generalizations of what needs to be considered by educational leaders when implementing a coaching program. The studies reviewed different models of coaching, environmental settings and demographics, and the characteristics of coaches teachers valued, which all play a role in the effectiveness of programs. Through discernment of their location and population and the resources available to them, educational leaders will be able to make evidence-based decisions regarding the development of coaching programs to have the most potential to be successful.

Critical components derived from these studies will be discussed in the next chapter. Insights will be elucidated and applications of them will be exemplified. Also, as new coaching methods and models continue to be introduced and student needs continue to change, a discussion of what future research needs to be done in order to determine best practices for coaching will be investigated.

Chapter Three: Discussion, Application, and Future Studies

Insights from the research discussed in the literature review led to themes identifying components evident in successful coaching programs. Educational leaders can apply these findings to their research when developing and implementing a coaching strategy to be effective in their environment. However, many more components of coaching need deliberation, so it would be beneficial to conduct studies on the other aspects playing a role in sustaining a coaching initiative. Through exploration of the insights and applications of the findings, considerations for future research to assist in the establishment of plausible coaching plans will be shared.

Insights Gained

A common perception of coaches is that their use is only when a teacher is experiencing challenges and needs reconditioning. This perception leads to feelings of resentment toward the coach and impacts the results of the practice. Therefore, constructing a positive relationship between the teacher and coach is vital in the teacher's disposition to work for improvement. Teachers appreciate coaches who are collaboration partners, as opposed to feeling as if they are there only for remediation. The temperament of a coach is essential in this regard. However, they must also possess the knowledge of the subject and expertise of instruction to earn the respect and trust of the one they are working with. Another consideration is the method of coaching utilized within a school.

Many models of coaching exist, but the available resources limit what can be implemented. It is necessary to evaluate what a school or district has access to so they can select the most appropriate model. The main components to assess include the finances, personnel, and technology. Depending on how much money is available determines whether there is an option

to hire external coaches or if there is a need to develop them internally. However, reviewing staff is necessary to ascertain the existence of personnel with the qualifications and qualities required to be an effective coach. Lastly, some models of coaching employ the use of cameras and software to assist in their delivery. Therefore, these only become viable with possession of this technology or having the means to acquire it. Regardless of the model utilized, it is inspiring to note that successful coaching exists in many environments.

The location of a school or its demographics is not easily changed. Studies with positive results have occurred at schools with students and teachers from diverse backgrounds, geography, and socioeconomic conditions. Participants included elementary, special education, and subject-specific teachers. The various circumstances of the studies show that job-embedded professional development can be successful in many settings. This result establishes the value of coaching for the development of teachers, which leads to higher student achievement.

Applications of Research

Educational leaders seek professional development that is beneficial for their teachers and sustained long-term. There are many areas for consideration, such as classroom management, instruction design and delivery, or learning a new curriculum. Attributes identified as contributing to successful coaching programs through this research can be applied when contemplating future initiatives. One takeaway from the literature review to consider is seeking PD, which begins with workshops and follows up with support throughout the year. Another is to ensure that experts with whom the participants can respect and develop relationships lead them.

The research established the significant value of relationships and how they can impact a program's success. Educational leaders can apply this knowledge in a couple of different ways. First, they can develop efficacy by focusing on the key characteristics and engaging in a self-

reflection practice to identify the areas they may need to develop or emulate to be an effective administrator. Secondly, they can apply a similar lens to their staff. This viewpoint will enable them to identify those who could be utilized not only as a potential coach but also as mentors and future leaders. Having a good understanding of their resources allows leaders to place people in roles to assist in creating a positive culture and climate and identify needs and limitations.

Personnel is one of many resources that need to be analyzed when generating a snapshot of what is available in an educational structure. As discovered through the literature review, procuring or utilizing materials to overcome obstacles such as distance is important. An evaluation is necessary to determine what technology a school possesses and what may be required to maintain its operation. Knowing what is available can create new programming opportunities and allow access to programs when a school is in an isolated location. Though beneficial, there are usually costs associated with these components, making it imperative to examine the benefits and ensure they are worth the investment.

Future Studies

An area that needs to continue to be studied is the cost-benefit of coaching in schools. The coaching strategy has proven effective, but many districts are dealing with limited budgets and the need to support a number of initiatives, and coaching is generally costly. Whether the hiring of the position is internal or external, it is a new one requiring funding. Developing the position from within the district will require additional training as well. Leaders also need to consider teachers' investment of time and energy versus how they value coaching results.

This consideration leads to another area for future research: determining the best method to train coaches. As noted in the research, experience and expertise are essential characteristics of good coaches, but those areas are challenging to define, and it is something not teachable.

Learning specific coaching models through professional development can be done, but they may not coordinate with the needs or resources of the school. Other models employ coaches to mentor coaches, which is only attainable if they are already in the district. As the makeup of schools varies and finances may be limited, methods of discovering how to educate future coaches in an effective manner should be explored.

Lastly, the scaling up of coaching models needs more assessment. Most research focuses on individual schools and a limited number of teachers. The possibility of employing this strategy throughout a district needs to be determined. Issues to consider are the number of coaches required for the increased workload and the availability of enough quality candidates to fill the positions. Additionally, the cost of upsizing and its management to ensure all teachers and students are supported equitably requires research.

Conclusion

Schools desire to create an environment where students are treated equitably and have the opportunity to be academically successful. Integral in this process is the development of teachers who can adapt instructional techniques and modify classroom strategies to provide conditions allowing for growth. School leaders are responsible for providing instruction and resources to their staff so they can work towards this goal. There are many options to choose from for this professional development, and they require a financial investment. Therefore, leaders must decide what is the most effective and will work in their circumstances.

Coaching is an evidence-based practice that has proven to be successful and pursued by many districts. However, leaders need to explore different facets of it to ensure it will be functional in their specific setting. The model implemented and the demographics of the students and teachers also need to be considered to determine the best fit. Furthermore, they need to

examine successful coaches' characteristics to confirm that they can hire or develop ones with similar attributes. Educational leaders play a pivotal role in positively influencing teacher efficacy and enriching students, so they must exercise best practices when instituting new methods of professional development.

References

Boston Consulting Group & Bill & Melinda Gates Foundation. (2014). Teachers Know Best: Teachers' views on professional development. In *Boston Consulting Group*. https://s3.amazonaws.com/edtech-production/reports/Gates-PDMarketResearch-Dec5.pdf

Canaran, O. (2023). Teacher educators' professional development through online peer-coaching. *International Journal of Curriculum and Instruction*, *15*(2), 892–911.

Carson, C. D., Choppin, J., & Choppin, J. (2021). Coaching from a Distance: Exploring Video-based Online Coaching. *Online Learning*, *25*(4). https://doi.org/10.24059/olj.v25i4.2881

Garcia, S. G., Jones, D., Holland, G., & Mundy, M. (2013). Instructional coaching at selected middle schools in South Texas and effects on student achievement. *Journal of Instructional Pedagogies*, *11*. http://files.eric.ed.gov/fulltext/EJ1097165.pdf

Hammond, L., & Moore, W. (2018). Teachers taking up explicit instruction: The impact of a professional development and Directive instructional Coaching model. T*he Australian Journal of Teacher Education*, *43*(7), 110–133. https://doi.org/10.14221/ajte.2018v43n7.7

Jacob, A., & McGovern, K. (2015). *THE MIRAGE: Confronting the hard truth about our quest for teacher development*. https://files.eric.ed.gov/fulltext/ED558206.pdf

Knight, D., Hock, M., Skrtic, T. M., Bradley, B. A., & Knight, J. (2018). Evaluation of Video-Based Instructional Coaching for Middle School Teachers: Evidence from a Multiple Baseline Study. *The Educational Forum*, *82*(4), 425–442. https://doi.org/10.1080/00131725.2018.1474985

Knight, D. S., & Skrtic, T. M. (2020). Cost-Effectiveness of instructional Coaching: Implementing a Design-Based, Continuous Improvement model to advance teacher

professional development. *Journal of School Leadership*, *31*(4), 318–342.

    https://doi.org/10.1177/1052684620972048

Kraft, M. A., & Blazar, D. (2016). Individualized coaching to improve teacher practice across

    grades and subjects: new experimental evidence. *Educational Policy*, *31*(7), 1033–1068.

    https://doi.org/10.1177/0895904816631099

Kraft, M. A., & Blazar, D. (2022, January 25). *Taking teacher coaching to scale*. Education

    Next. https://www.educationnext.org/taking-teacher-coaching-to-scale-can-personalized-

    training-become-standard-practice/

Kraft, M. A., Blazar, D., & Hogan, D. (2018). The Effect of Teacher coaching on instruction and

    Achievement: A Meta-Analysis of the Causal Evidence. *Review of Educational Research*,

    88(4), 547–588. https://doi.org/10.3102/0034654318759268

Lu, L., & Groves, O. (n.d.). *Fewer than 1 in 5 students who are behind in Year 3 catch up and

    stay caught up*. The Conversation. https://theconversation.com/fewer-than-1-in-5-

    students-who-are-behind-in-year-3-catch-up-and-stay-caught-up-211516

Marsh, J. A., Bertrand, M., & Huguet, A. (2015). Using data to alter instructional practice: The

    mediating role of coaches and professional learning communities. *Teachers College

    Record*, *117*(4), 1–40. https://doi.org/10.1177/016146811511700411

National Center for Education Statistics. (n.d.). *Schools that had staff with specialist or academic

    coaching assignments: Percentage of public K–12 schools that had staff with specialist

    or academic coaching assignments and the percentage of public schools that had staff

    with a particular specialist or academic coaching assignment, by state: 2020–21*.

    https://nces.ed.gov/surveys/ntps/estable/table/ntps/ntps2021_sflt03_s1s

Nugent, G., Kunz, G., Houston, J., Wu, C., Patwardhan, I., Lee, S., DeChenne-Peters, S. E., & Luo, L. (2018). The effectiveness of a summer institute and remotely delivered science instructional coaching in middle and high school. *Journal of Science Teacher Education*, *29*(8), 760–784. https://doi.org/10.1080/1046560x.2018.1514193

Reddy, L. A., Lekwa, A., & Shernoff, E. (2020). Comparison of the effects of coaching for general and special education teachers in High-Poverty Urban Elementary Schools. *Journal of Learning Disabilities*, *54*(1), 36–53. https://doi.org/10.1177/0022219420970194

Sawchuk, S. (2020, December 1). Full cost of professional development hidden. *Education Week*. https://www.edweek.org/leadership/full-cost-of-professional-development-hidden/2010/11

School Pulse Panel - Interactive results. (2024). National Center for Educational Statistics. Retrieved September 9, 2024, from https://nces.ed.gov/surveys/spp/results.asp

Stoetzel, L., & Taylor-Marshall, S. (2022). Coaching for change: redefining the concept of change within a practice-based coaching model. *International Journal of Mentoring and Coaching in Education*, *11*(4), 452–466. https://doi.org/10.1108/ijmce-12-2021-0111

Teemant, A. (2013). A Mixed-Methods investigation of instructional coaching for teachers of diverse learners. *Urban Education*, *49*(5), 574–604. https://doi.org/10.1177/0042085913481362

Vanderburg, M., & Stephens, D. (2010). The impact of Literacy Coaches: What teachers value and how teachers change. *The Elementary School Journal*, *111*(1), 141–163. https://doi.org/10.1086/653473

Walsh, N. R., Ginger, K., & Akhavan, N. (2020). Benefits of instructional coaching for teacher

efficacy: A mixed methods study with PreK-6 teachers in California. *Issues in*

Educational Research, *30*(3), 1143–1161. https://eric.ed.gov/?id=EJ1270842

Woodward, L., & Thoma, J. (2020). Perspectives on literacy coaching: defining roles and

expectations. *Teacher Development*, *25*(1), 68–84.

https://doi.org/10.1080/13664530.2020.1829693