Instructional Coaching in K–12 —
A Literature Review and Discussion Questions

Introduction

Following an established REL West research protocol, the REL West team conducted a search for research reports and research-based resources on instructional coaching in K–12 educational settings. The literature review is organized in three parts:

- A summary of information from the research literature organized around four themes: goals of coaching; defining a coaching cycle; effective coaching practices; and structural supports for implementation of effective coaching.
- A list of questions for the Steering Committee members to discuss internally, and with REL West, during the process of developing the Coaching Protocol.
- The reference list, with annotations, for further information.

Although the summary addresses instructional coaching across all subjects, particular attention is placed on research on literacy coaching in high school settings given that the ERWC is a mainstream college preparatory English course. For details of literature search procedures and inclusion criteria, please see the methods section at the end of this literature review.

Part I: A Thematic Summary

Theme 1: Goals of coaching

Despite the diversity that exists within coaching in educational settings, the primary goal of coaching remains focused on improving the learners' academic and behavioral outcomes through improved teaching practices (National Center for Systemic Improvement, 2016).

In their 2018 report of a meta-analysis on the effect of teacher coaching on instruction and achievement, Kraft and his colleagues characterized coaching as an observation and feedback cycle in which coaches model research-based practices and work with teachers to incorporate these practices into their classrooms. In contrast to traditional professional development, coaching is intended to be individualized, time-intensive, sustained over the course of a semester or year, context-specific, and focused on discrete skills (Kraft, Blazar, & Hogan, 2018).

Also in 2018, the New Teacher Center (NTC) suggested that the goals of instructional coaching are "to accelerate teacher effectiveness, improve teacher retention, build teacher leadership, increase student learning, and support equitable outcomes for every learner" (New Teacher Center, 2018, p. 1).

With regard to literacy coaching in secondary schools, the International Reading Association (IRA) suggested that the primary goal of the Literacy Coach is to "assist content teachers in addressing the reading comprehension, writing, and communication skills that are particular to their disciplines" through job-embedded professional development (International Reading Association, 2006, p. 7).

Theme 2: Defining a coaching cycle

Coaching done well can dramatically improve human performance, while coaching done poorly can be ineffective, wasteful, and sometimes even destructive (Knight, Elford, Hock, Dunekack, Bradley, Deshler, & Knight, 2015). What, then, is coaching done well? Below are brief descriptions of two instructional coaching cycles that have been found to be effective:
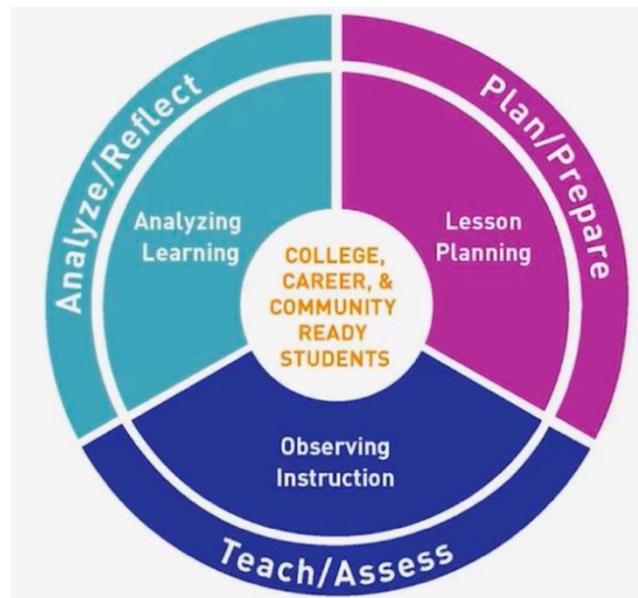
Coaching cycle 1

In early January 2019, NTC provided a webinar on designing effective instructional coaching for teachers, based on lessons learned from Supporting Effective Educator Development (SEED) grantees. One of the major themes of the webinar was to present a continuous coaching cycle that includes three high-leverage activities, namely:

1) ***Lesson planning.*** Coaches support teachers to plan instruction aligned to curriculum, rigorous standards, and effective research-based teaching practices.
2) ***Observing instruction***. Coaches continuously observe for and provide feedback to teachers on their instructional practices with the focus of ensuring equitable outcomes for every student.
3) ***Analyzing learning.*** Coaches support teachers to analyze and interpret evidence of student learning and strategically plan, adjust instruction that is aligned to standards, and plan scaffolded instruction to meet the needs of every student.

The coaching cycle is also illustrated in the following figure (figure 1). NTC emphasized that coaches need to pay attention to all three pieces and connect them tightly to shift teacher practice. Additionally, for each activity, coaches need to go deep with the teachers on the content of the course. For instance, when planning lessons together with teachers, instead of staying on the surface of classroom time management, coaches should discuss with the teachers in details about the content teachers plan to deliver in class and questions they plan to ask students (New Teacher Center, 2019).

Figure 1. Coaching cycle is key to shifting teacher practice

(*Source:* New Teacher Center, 2019)

Coaching cycle 2

The Kansas Coaching Project and Instructional Coaching Group researchers studied instructional coaching for a decade, examining the moves coaches make to help teachers set and achieve goals (Knight et al., 2015). Kansas Coaching Project researchers worked with coaches from three areas in the state of Washington, while Instructional Coaching Group researchers conducted more than 50 interviews with coaches around the country. Together, through these studies and interviews, the researchers concluded that a three-step instructional coaching cycle—*Identify*, *Learn,* and *Improve*—can help coaches become more effective in supporting teachers. The three-step instructional coaching cycle consists of:

1) *Identify*. The coach and teacher collaborate to set a goal, which can be a change the teacher would like to see in student behavior, achievement, or attitude. They then select a teaching strategy to try to meet that goal;
2) *Learn*. Once the teacher and coach set a goal and choose a teaching strategy, the teacher must learn how to implement the strategy. For the coach, this means explaining and modeling teaching strategies. Coaches need to be precise when they explain teaching practices. They might, for example, clearly explain the items on an instructional checklist while also asking teachers how they might want to modify the checklist to best meet students' needs or take advantage of their own strengths as teachers; and

3) ***Improve****.* Instructional coaches monitor how teachers implement the chosen teaching strategy and whether the goal previously set has been met; that is, whether the change the teacher would like to see in student behavior, achievement, or attitude has occurred. Teachers and coaches keep moving forward by modifying the way they use the identified teaching strategies, trying another strategy, or sticking with an identified teaching strategy until they reach the goal.

Similarities and differences

Both coaching cycles have three components, taking place in a linear order with a continuous timeline. They both start with some kind of preparation/goal setting where the teacher decides what to implement; for the second step, both cycles include coaches' monitoring, although the emphasis on observation is different; for the last step, both cycles involve reflection and adjustment.

Coaches take on different roles in the two coaching cycles. In the coaching cycle proposed by NTC (2019), besides co-planning and observing, the coach serves as a data analyst by supporting the teacher to analyze and interpret evidence of student learning. In this framework, coaches provide clear, deep (instead of just the surface of the classroom management issues), and descriptive (with non-judgmental) feedback, so that the teachers can see their own practices more clearly and reflect on solutions and improvements accordingly. On the other hand, in the coaching cycle proposed by Knight et al. (2015), besides being involved in planning and goal-setting, the coach is expected to collaborate with the teacher, explain and model instructional strategies. With this framework, the coaching is viewed as a form of collaboration, with the coach being a co-planner and instructional supporter to the teacher.

Theme 3: Effective coaching practices

As a coaching cycle is implemented, it is important to ensure that effective coaching practices are in place. Below are brief descriptions of some specific coaching practices that have been found to be effective:

Applying adult learning theory to coaching

It is important for coaches to have the knowledge of adult learning theory, given that working with teachers is very different from working with children (Cox, 2015; Elish-Piper, L'Allier, & Zwart, 2008). Having a solid understanding of adult learning theory is a powerful tool that literacy coaches can use to provide the types of coaching and professional development that will be relevant and useful for teachers. Four key principles of adult learning theory are:

1) Adults want to know why they should learn something. Adults need to relate the content of their learning to real-world problems before undertaking to learn. They need to recognize the need for the learning.
2) Adults learn best through first-hand experience. Therefore, coaching should be presented as the process that integrates first-hand experience with abstract reflection and conceptualization to facilitate understanding, provide direction, and support action.
3) Adults approach learning as problem solving. For coaches, this suggests that teachers will want to work on immediate problems rather than explore seemingly unrelated issues, so that the new learning can be applied to solving some task or problem.

4) Adults learn best when information has immediate value. For coaches, the emphasis could be on promoting the sense of connection between teachers' values and the outcomes of the coaching.

Using Concerns-Based Adoption Model to identify where teachers are in the process

Another promising coaching practice suggested by Elish-Piper et al. (2008) is to use the Concerns-Based Adoption Model (C-BAM) to identify where teachers are in the process of change, which can help coaches determine the types of support and information they may need. The C-BAM (outlined in table 1) is a useful tool for literacy coaches because it identifies typical steps that teachers go through as they face changes in their schools and classrooms. By considering each teacher's stage of concern, literacy coaches can address the questions and issues that are most relevant for a teacher at that stage of the change process.

Table 1. The Concerns-Based Adoption Model (C-BAM)

Stage of concern	Description	Teacher question that coaching can address
1. Awareness	The teacher knows nothing about the change to be implemented.	"What is it?"
2. Information	The teacher gathers information about the change.	"How does it work?"
3. Personal	The teacher wonders how the change will affect his or her teaching and personal and professional situation.	"How will this affect me?" "Will I be able to do this?"
4. Management	The teacher is concerned about practical aspects of implementing the change.	"How will I fit it into my teaching or classroom?" "How will I manage the materials and classroom to implement the change?"
5. Consequence	The teacher considers the effect of the change on students.	"Is it worth it?" "Is it working for my students?"
6. Collaboration	The teacher makes modifications to the change and shares ideas with others.	"It's working, but how are others implementing the change?"
7. Refocusing	The teacher is satisfied with the change and begins to consider other problems and issues.	"Is there something else that is better?"

Using differentiated coaching to support teachers' learning

Elish-Piper et al. (2008) also suggested that literacy coaches should consider using differentiated coaching (such as a consulting stance, a collaborating stance, or a coaching stance) when working with teachers, depending on the situation. By listening carefully to what teachers say and the questions they ask, the literacy coach can determine the best stance to take to support the teacher, changing direction as needed.

- In the *consulting* stance, the literacy coach supplies information, suggests solutions, and guides the teacher through new instructional approaches and materials.
- In the *collaborating* stance, the teacher and literacy coach work together to develop ideas and analyze data and situations.

- In the *coaching* stance, the teacher gleans information by analyzing his or her own practices, and the literacy coach asks questions and paraphrases the teacher's ideas to build awareness, broaden perspectives, and clarify issues.

Elish-Piper et al. (2008) provided some scenarios to further illustrate what situations each stance is best suited to. For instance: 1) A kindergarten teacher said to the coach, "I have not done phonemic awareness activities before. Can you help me work on that?" In this case, the coach could take the collaborating stance and ask questions, discuss ideas, and develop a plan with the teacher about doing phonemic awareness activities with students; and 2) A fifth-grade teacher told the coach, "I've been teaching inferencing to my students, and they still need lots of support to make good inferences. Here are some examples of their work. What do you think?" In this case, the coach could cue into the teacher's comments and take a coaching stance where she poses questions and paraphrases what the teacher says to help her find her own next steps.

Building a positive coach-teacher relationship

More recently, in a research synthesis on effective coaching developed by the National Center for Systemic Improvement, it is suggested that a positive teacher-coach relationship correlates with improved teacher practice (National Center for Systemic Improvement, 2016). The synthesis further suggested that, in order to build a positive relationship with teachers, coaches should consider using the following strategies: Conveying coaching is non-evaluative; Empathetic listening; Restating and summarizing information conveyed by the teacher; Conveying expertise in teaching and deep content-area knowledge; and Identifying and working toward teachers' goals and needs (National Center for Systemic Improvement, 2016).

Theme 4: Structural support for the implementation of effective coaching

Having identified effective coaching practices does not necessarily guarantee the coaching will be well-implemented. Research suggests that how a program or innovation is put into place affects the degree to which the program/innovation achieves its intended goals (Cantrell & Hughes, 2008; Fixsen, Naoom, Blase, Friedman, & Wallace, 2005; Greenhalgh, Robert, Macfarlane, Bate, & Kyriakidou, 2004). The following literature discusses how to provide structural support to ensure the coaching is well-implemented and effective in improving teaching practice and student learning.

A recent synthesis of research on high-quality instructional coaching (Desimone & Pak, 2017) suggested that for coaching to be effective in improving teaching practice and student learning, at least five features need to be in place:

1) *Content focus:* activities are focused on subject matter content and how students learn that content;
2) *Active learning:* opportunities exist for teachers to observe, receive feedback, analyze student work, or make presentations, as opposed to passively listening to lectures;
3) *Coherence:* content, goals, and activities are consistent with the school curriculum and goals, teacher knowledge, teacher beliefs, needs of students, and school, district, and state reforms and policies;
4) *Sustained duration:* professional development activities are ongoing throughout the school year and include 20 hours or more of contact time; and

5) *Collective participation:* groups of teachers from the same grade, subject, or school participate in professional development activities together to build an interactive learning community.

Most recently, NTC (2019) suggested that three important factors are needed to ensure the effectiveness of an instructional coaching program: 1) Coaches need professional trainings and to have their own community of practice; 2) Coaches need to have a reasonable work load so that they can spend significant time with each individual teacher side-by-side; and 3) Coaches need to stay focused on instructional support when observing and giving feedback to teachers (New Teacher Center, 2019). NTC also provided the following figure (figure 2) to illustrate these three factors.

Figure 2. New Teacher Center's instructional coaching theory of action
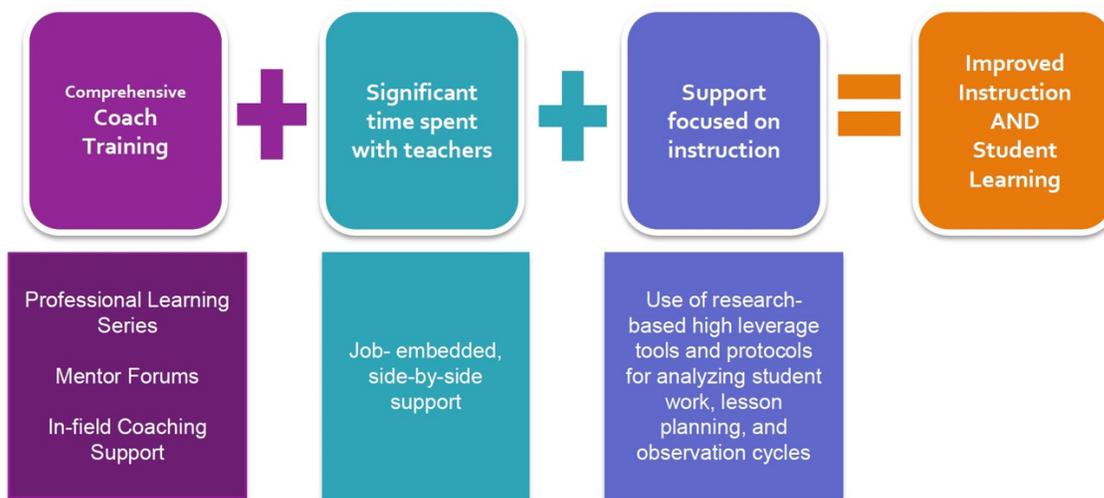
(*Source:* New Teacher Center, 2019)

Two features about the structural support appeared in both Desimone and Pak (2017) and NTC (2019). First, they both emphasized the importance of providing teachers time and opportunities to work with the coach. While Desimone and Pak (2017) suggested that teachers should be given professional development activities with sustained duration, NTC (2019) suggested that the ratio between coach and teacher should be small, so that each individual teacher may receive adequate support from his/her coach. Second, with different focuses, both articles advocated for the professional learning communities (PLCs). While Desimone and Pak (2017) proposed the idea of collective participation for the teachers, NTC (2019) suggested that it is important for the coaches to have their own PLCs.

In terms of mode of delivery, Kraft and his colleagues suggested that web-based virtual coaching might help address the need for high-quality coaches amid resource constraints. Leveraging video-based technology can increase the number of teachers with whom an individual coach can work and provide access to high-quality coaches for schools or districts without local expertise. This approach may also help reduce teachers' concerns about having their coach also be their evaluator, as virtual coaches are both physically separate from and unaffiliated with teachers' schools. Furthermore, virtual coaching could lower coaching costs by eliminating commute time (Kraft, Blazar, & Hogan, 2018).

Part II: Connecting to the development of the Coaching Protocol

To connect the findings from the review to the development of the Coaching Protocol, REL West developed a list of questions (see below) for the Steering Committee members to discuss internally and with REL West, in the process of developing the Coaching Protocol.

Theme 1: Goals of coaching

What are the goals of the coaching for ERWC teachers? What are the outcome measures of interest for ERWC teachers and for students?

Theme 2: Coaching cycles

Are either of the coaching cycle models described in the literature review relevant to the ERWC coaching? What adjustments would need to be made if they were incorporated into the Coaching Protocol?

What roles will ERWC coaches play? For instance, will the coach be classroom supporter (e.g., collaborating, co-teaching, co-planning, modeling, etc.), instructional supporter, curriculum or content facilitator, or data coach?

Theme 3: Effective coaching practices

What effective coaching practices listed in the literature review may be applicable to the ERWC coaching? If coaches were to focus on one or two practices, what would they be, and why?

In what ways could adult learning theory be helpful for the ERWC coaches in supporting the teachers? What additional information in the form of handouts/materials on this theme for the coaches might be helpful to share along with the Coaching Protocol?

Theme 4: Structural supports for the implementation of effective coaching

In the context of ERWC coaching, what structural support could be provided so the coaches can better support the ERWC teachers? Does the ERWC Steering Committee have capacity (skills and time) to provide these supports? And how should this support be incorporated into the Coaching Protocol?

Part III: References and Annotated Bibliography

Canter, L. (2006). *Lee Canter's classroom management for academic success.* Bloomington, IN: Solution Tree Press.

Book description: Classroom Management for Academic Success is the first management program designed to specifically address the first priority for today's educator: improving the achievement of all students. This groundbreaking work will take you beyond simply managing student behavior to quickly and effectively establishing an environment that promotes academic success.

Cantrell, S. C., & Hughes, H. K. (2008). Teacher efficacy and content literacy implementation: An exploration of the effects of extended professional development with coaching. *Journal of Literacy Research*, *40*, 95–127.

Abstract: This study investigated the effects of yearlong professional development with coaching on sixth- and ninth-grade teachers' efficacy for teaching literacy and collective efficacy. As well, it explored the relationship between teacher efficacy and implementation of a content literacy approach. A teacher survey was used to measure teachers' efficacy before and after participation in the professional development, and classroom observations were used to measure teachers' implementation of content literacy practices. Teacher interviews provided insight into the processes of teacher efficacy development and content literacy implementation. Survey results indicated significant improvements in teachers' personal and general efficacy for literacy teaching and in teachers' collective teaching efficacy. Teachers who demonstrated higher efficacy prior to participating in professional development were more likely to implement the recommended content literacy practices. Teacher interviews indicated that coaching and collaboration were important factors in the development of teachers' sense of efficacy with and implementation of content literacy strategies.

Chauvin, R., & Theodore, K. (2013). Increasing the effectiveness of literacy coaches. *SEDL Insights, 1*(3), 1–6. Retrieved from http://www.sedl.org/insights/1-3/index.html

Abstract: Literacy coaches provide teachers from all content areas with the support and professional development they need to deliver high-quality literacy instruction to all students. This article examines how education leaders can help literacy coaches have the greatest impact at their schools.

Cox, E. (2015). Coaching and adult learning: Theory and practice. *New Directions for Adult & Continuing Education, 148*, 27–38.

Abstract: This paper focuses on how these two familiar theories of adult learning, andragogy and transformative learning, inform coaching undertaken by facilitators of adult learners. After a discussion of definitions of coaching, I outline these two adult learning theories in more detail and relate them to coaching practice.

Desimone, L. M., & Pak, K. (2017). Instructional coaching as high-quality professional development. *Theory into Practice, 56*(1), 3–12.

Abstract: In response to policy initiatives calling for the implementation of evidence-based classroom practice, instructional coaches are frequently utilized as providers of professional

development (PD). Despite the demand for instructional coaches, there is little empirical evidence that coaching improves teacher practice. We address this limitation by conceptualizing instructional coaching within a research-based framework for PD consisting of 5 key features synthesized from cross-sectional studies, longitudinal studies, and literature reviews of experimental and quasi-experimental studies: content focus, active learning, sustained duration, coherence, and collective participation. When examining understanding instructional coaching through the lens of the 5 empirically predictive elements of effective PD, the model presents itself as a powerful tool for improving teacher knowledge, skills, and practice. It is imperative that future researchers define the next set of questions to further refine the understanding of coaching and how it can and should be executed to leverage professional learning.

Dweck, C. (2006). *Mindset: The new psychology of success.* New York, NY: Random House.

Book description: After decades of research, world-renowned Stanford University psychologist Carol S. Dweck, Ph.D., discovered a simple but groundbreaking idea: the power of mindset. In this brilliant book, she shows how success in school, work, sports, the arts, and almost every area of human endeavor can be dramatically influenced by how we think about our talents and abilities. People with a fixed mindset—those who believe that abilities are fixed—are less likely to flourish than those with a growth mindset—those who believe that abilities can be developed. Mindset reveals how great parents, teachers, managers, and athletes can put this idea to use to foster outstanding accomplishment. In this edition, Dweck offers new insights into her now famous and broadly embraced concept. She introduces a phenomenon she calls false growth mindset and guides people toward adopting a deeper, truer growth mindset. She also expands the mindset concept beyond the individual, applying it to the cultures of groups and organizations. With the right mindset, you can motivate those you lead, teach, and love—to transform their lives and your own.

Elish-Piper, L., L'Allier, S. K., & Zwart, M. (2008). Literacy coaching: Challenges and promising practices for success. *Illinois Reading Council Journal, 37*(1), 10–21.

Abstract: This article describes common challenges to literacy coaching. Among the challenges that literacy coaches face are clarifying and then communicating to others the meaning of the term "coaching" in their buildings or districts, gaining access into classrooms, and the lack of experience in or preparation for working with adults. Promising practices to overcome such challenges are discussed.

Fixsen, D. L., Naoom, S. F., Blase, K. A., Friedman, R. M., & Wallace, F. (2005). *Implementation research: A synthesis of the literature.* Tampa, FL: University of South Florida. Retrieved from https://nirn.fpg.unc.edu/resources/implementation-research-synthesis-literature

Abstract: Over the past decade, the science related to developing and identifying "evidence-based practices and programs" has improved—however, the science related to implementing these programs with fidelity and good outcomes for consumers lag far behind. To this end, our intent is to describe the current state of the science of implementation, and identify what it will take to transmit innovative programs and practices to mental health, social services, juvenile justice, education, early childhood education, employment services, and substance abuse prevention and treatment. This monograph summarizes findings from the review of the research literature on implementation and proposes frameworks for understanding effective implementation processes.

The results of this literature review and synthesis confirm that systematic implementation practices are essential to any national attempt to use the products of science—such as evidence-based programs—to improve the lives of its citizens.

Greenhalgh, T., Robert, G., Macfarlane, F., Bate, P., & Kyriakidou, O. (2004). Diffusion of innovations in service organizations: Systematic review and recommendations. *Milbank Quarterly*, *82*(4), 581–629.

Abstract: This article summarizes an extensive literature review addressing the question, How can we spread and sustain innovations in health service delivery and organization? It considers both content (defining and measuring the diffusion of innovation in organizations) and process (reviewing the literature in a systematic and reproducible way). This article discusses (1) a parsimonious and evidence-based model for considering the diffusion of innovations in health service organizations, (2) clear knowledge gaps where further research should be focused, and (3) a robust and transferable methodology for systematically reviewing health service policy and management. Both the model and the method should be tested more widely in a range of contexts.

International Reading Association. (2006). *Standards for middle and high school literacy coaches.* Newark, DE: Author. Retrieved from http://www.ncte.org/library/NCTEFiles/Resources/Positions/coaching_standards.pdf

Abstract: Standards for Middle and High School Literacy Coaches, prepared by IRA with support from Carnegie Corporation of New York and in collaboration with National Council of Teachers of English (NCTE), National Council of Teachers of Mathematics (NCTM), National Science Teachers Association (NSTA), and National Council for the Social Studies (NCSS), outlines the ideal of what a literacy coach should know and be able to do—in delivering both leadership and support in individual content areas. It is offered as a blueprint not only for literacy coaches themselves, but for policymakers, school and district administrators, and teacher educators, in the hope that it will help support and develop coaching in ways that will most benefit adolescent learners.

Knight, J., Elford, M., Hock, M., Dunekack, D., Bradley, B., Deshler, D. D., & Knight, D. (2015). Three steps to great coaching: A simple but powerful instructional coaching cycle nets results. *Journal of Staff Development, 36*(1), 11–18. Retrieved from http://cabooseit.s3.amazonaws.com/makes_sense_strategies/3-steps-to-great-coaching.pdf

Abstract: In this article the authors describe a three-step instructional coaching cycle that can helps coaches become more effective. The article provides the steps and related components to: (1) Identify; (2) Learn; and (3) Improve. While the instructional coaching cycle is only one effective coaching program, coaches also need professional learning that ensures they understand how to navigate the complexities of helping adults, have a deep understanding of a comprehensive, focused set of teaching practices, communicate effectively, lead effectively, and work in systems that foster meaningful professional learning. Finally, instructional coaches who use a proven coaching cycle can partner with teachers to set and reach improvement goals that have an unmistakable, positive impact on students' lives.

Kraft, M. A., & Blazar, D. (2017). Individualized coaching to improve teacher practice across grades and subjects: New experimental evidence. *Educational Policy, 31*(7), 1033–1068. Retrieved from

https://scholar.harvard.edu/files/mkraft/files/kraft_blazar_2017_individualized_coaching_to_improve_teacher_practice_ep.pdf

Abstract: This article analyzes a coaching model focused on classroom management skills and instructional practices across grade levels and subject areas. We describe the design and implementation of MATCH Teacher Coaching among an initial cohort of 59 teachers working in New Orleans charter schools. We evaluate the effect of the program on teachers' instructional practices using a block randomized trial and find that coached teachers scored 0.59 standard deviations higher on an index of effective teaching practices comprised of observation scores, principal evaluations, and student surveys. We discuss implementation challenges and make recommendations for researcher–practitioner partnerships to address key remaining questions.

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.

Abstract: Teacher coaching has emerged as a promising alternative to traditional models of professional development. We review the empirical literature on teacher coaching and conduct meta-analyses to estimate the mean effect of coaching programs on teachers' instructional practice and students' academic achievement. Combining results across 60 studies that employ causal research designs, we find pooled effect sizes of 0.49 standard deviations (SD) on instruction and 0.18 SD on achievement. Much of this evidence comes from literacy coaching programs for prekindergarten and elementary school teachers in the United States. Although these findings affirm the potential of coaching as a development tool, further analyses illustrate the challenges of taking coaching programs to scale while maintaining effectiveness. Average effects from effectiveness trials of larger programs are only a fraction of the effects found in efficacy trials of smaller programs. We conclude by discussing ways to address scale-up implementation challenges and providing guidance for future causal studies.

Lemov, D. (2010). *Teach like a champion: 49 techniques that put students on the path to college*. San Francisco, CA: Jossey-Bass.

Book description: Teach Like a Champion offers effective teaching techniques to help teachers, especially those in their first few years, become champions in the classroom. These powerful techniques are concrete, specific, and are easy to put into action the very next day. Training activities at the end of each chapter help the reader further their understanding through reflection and application of the ideas to their own practice.

National Center for Systemic Improvement. (2016). *Effective coaching: Improving teacher practice and outcomes for all learners.* San Francisco, CA: WestEd. Retrieved from https://www.air.org/sites/default/files/NCSI_Effective-Coaching-Brief-508.pdf

Abstract: The purpose of this brief is to synthesize research on coaching and to offer a framework of effective coaching practices. Part 1 provides general information on coaching, including the need for coaching and the goals of coaching. Part 2 describes critical coaching practices that are linked to improvements in teacher practice and learner outcomes. As these practices are most associated with such improvements, they are the recommended practices that should be central to the everyday routine of coaches working in general education or special education settings, as

well in environments (e.g., homes, schools, childcare centers) with learners of all ages. This brief is intended to be used in conjunction with the tool entitled Implementation Guide for Coaching. Research from Implementation Science suggests that how a program, practice, or innovation is put into place impacts the degree to which we can expect that innovation to achieve its intended goals. Similarly, it is important to attend to how the innovation is implemented. Drawing upon principles of Implementation Science, the guide outlines key areas that should be considered and action steps that should be taken when using coaching as a pathway toward improving teacher practice and learner outcomes.

New Teacher Center. (2019). *Designing instructional coaching for teachers* [PowerPoint slides]*.* Santa Cruz, CA: Author. Retrieved from https://www.mathematica-mpr.com/video/designing-instructional-coaching-for-teachers

Webinar introduction: The New Teacher Center shares lessons learned from its experience designing and implementing instructional coaching for teachers. During the webinar, learn about the New Teacher Center's instructional coaching cycle, the common challenges faced in providing instructional coaching, and the organization's instructional coaching standards used to ensure consistent implementation across schools and districts.

New Teacher Center. (2018). *Instructional coaching practice standards*. Santa Cruz, CA: Author. Retrieved from https://info.newteachercenter.org/l/576393/2018-08-29/34x7214

Abstract: The Instructional Coaching Program and Practice Standards were developed to accelerate teacher effectiveness, build teacher leadership, increase student learning, and support equitable outcomes for every learner. The Instructional Coaching Program standards define the essential components of an effective coaching program that accelerates teacher effectiveness. Districts can then use the Instructional Coaching Practice Standards as a framework to implement these components in a strategic, quality practice. Together, these standards are carefully framed to support maximum impact on teaching and learning, regardless of context.

Methods

Keywords and Search Strings

First, we searched databases using the primary search strings as follows:

> ("Coach*" OR "professional development") AND ("program" OR "model" OR "practices") AND ("effect*" OR "impact" OR "promising" OR "evaluation")

Second, we reviewed references that were cited in the resources identified through the above search process.

Databases and Resources

We searched ERIC for relevant resources. ERIC is a free online library of over 1.6 million citations of education research sponsored by the Institute of Education Sciences. Additionally, we searched Google Scholar and PsychInfo. The list of references is not comprehensive and other relevant references and resources may exist.

Reference Search and Selection Criteria

When searching and selecting resources to include, we consider the criteria listed below.

> **Date of the Publication**: References and resources published within the last 15 years, from 2003 to present, were included in the search and review.
>
> **Search Priorities of Reference Sources**: Search priority is given to study reports, briefs, and other documents that are published and/or reviewed by IES and other federal or federally funded organizations and academic databases. Priority is also given to sources that provide free access to the full article.
>
> **Methodology**: Priority is given to the most rigorous study designs, such as randomized controlled trials and quasi-experimental designs, and we may also include descriptive data analyses, survey results, mixed-methods studies, literature reviews, or meta-analyses. Other considerations include the target population and sample, including their relevance to the question, generalizability, and general quality. Priority is given to publications that are peer-reviewed journal articles or reports reviewed by IES and other federal or federally funded organizations. If there are many research reports available, we select those with the strongest methodology, or the most recent of similar reports. When there are fewer resources available, we may include a broader range of information.