

JOURNAL OF
**MATHEMATICS
EDUCATION**
AT TEACHERS COLLEGE

A Century of Leadership in Mathematics and Its Teaching

Developing and Supporting Teachers' Mathematical Pedagogy

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Supporting Teacher Learning During Modeled Mathematics Instruction: Findings From One Coach-Teacher Dyad

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ABSTRACT Although modeling instruction has been identified as a productive professional development activity that coaches can use with teachers in their classrooms, coaches are provided with little guidance regarding how to support teacher learning as they model mathematics instruction. While previous research points to the importance of providing teachers with examples of high-quality instruction through the coach's model, teachers may need additional support as instruction unfolds to make sense of what they are observing. As part of the current study, I partnered with one mathematics coach and explored how she explicitly sought to augment teacher learning while modeling mathematics instruction. Findings indicate that the coach leveraged three approaches: engaging the teacher in verbal asides during modeled instruction, providing the teacher with written asides in the scripted lesson plan, and scaffolding the observing teacher's responsibilities. Implications are provided for research and practice.

KEYWORDS *coaching, professional development, modeling mathematics instruction*

Introduction

Given coaching's widespread theoretical and empirical support (Desimone & Pak, 2017; Gibbons & Cobb, 2017; Harbour & Saclarides, 2020), United States school districts are increasingly hiring coaches to support teaching and learning. Here, I use the word "coach" to describe individuals who are tasked primarily with working with teachers on issues related to instructional improvement (Baker et al., 2021). Coaches typically have part- or full-time release from teaching, are stationed at the district office or in schools, and do not evaluate teachers (Campbell & Malkus, 2011). When coaches work with teachers, they may leverage one-on-one coaching activities such as modeling and co-teaching, and group coaching activities such as engaging in lesson study, examining student work, and analyzing classroom video to support teacher learning (Gibbons & Cobb, 2017). Although these individual and group coaching activities are universal (e.g., modeling, co-teaching,

lesson study, etc.), coaches select specific coaching activities and tailor their focus to meet their teachers' unique and pressing needs. For example, if a teacher wants to better understand how to implement a teaching through problem solving lesson (Lester & Charles, 2003) with a high-cognitive demand mathematics task (Smith & Stein, 1998) during her mathematics block, the coach might decide to model lessons for the teacher to provide a vision of what this might look like.

This analysis focuses on coaching cycles involving modeling. During modeling coaching cycles, the coach and teacher typically co-plan before instruction; the coach then teaches the modeled lesson in a classroom with students as the teacher observes; and, finally, the coach and teacher jointly reflect about the modeled lesson (Campbell & Griffin, 2017). When coaches model instruction, they provide teachers with opportunities for professional development. Given calls to situate teachers' learning experiences in their own classrooms (Putnam & Borko, 2000) coupled with research stating

that the modeler may not understand how to prompt learning for the observing teacher amid modeling (Lunenberg et al., 2007), research is needed that explores how coaches may intentionally support teacher learning as they model instruction in teachers' classrooms.

Previous research has pointed to planning and reflection meetings as offering coaches and teachers rich learning opportunities (Campbell & Griffin, 2017; Russell et al., 2020, Saclarides, 2022a). During such meetings, the coach and teacher have the opportunity to engage in sustained discussions about, for example, student thinking, content, pedagogical dilemmas, and other relevant problems of practice. However, research has yet to delineate the strategies coaches may intentionally leverage to support teacher learning as coaches model instruction for teachers. One line of thought is that, through modeling, coaches expose teachers to high-quality instruction and teachers learn by observing coaches as they enact high-quality instruction to students. In this vein, Lord et al. (2008) stated that the purpose of modeling instruction is to provide "visual images of how standards-based instruction should look" (p. 61). Furthermore, in reference to preservice teachers, Feiman-Nemser (2001) noted that "Teacher candidates must [...] form visions of what is possible and desirable in teaching to inspire and guide their professional learning and practice" (p. 1017). Modeling can be viewed as one way to help teachers form this vision of high-quality instruction.

Teachers may need support with processing these representations of high-quality practice and drawing their attention to noteworthy aspects of instruction (Ghousseini & Sleep, 2011). Planning and reflection conversations can provide teachers and coaches with a structured time and place to discuss the modeled lesson, student understanding, and next steps for instruction (Campbell & Griffin, 2017; Saclarides, 2022a). Formal reflection conversations typically take place well after the modeled lesson is over. By then, it may be difficult for the coach and teacher to remember some of the particulars from the modeled lesson. Although informal reflection conversations may take place soon after the lesson is over and while students are still present in the classroom, research has shown that these conversations between the coach and teacher tend to lack depth, which may limit teachers' learning opportunities (Saclarides & Lubienski, 2021). Furthermore, given structural constraints in schools, such as limited time for teachers and coaches to meet during the school day, reflection conversations as a whole are often rushed or do not take place at all (Saclarides & Lubienski, 2021).

Hence, how coaches can support teacher learning amid modeled instruction beyond providing teachers with images of high-quality instruction is worthy of empirical investigation. The overarching research question is: how does one mathematics coach support teacher learning during coaching cycles involving modeling?

Methods

Context, Participants, and Case Selection

This qualitative case study (Yin, 2018) took place in a public school district located in a southeastern metropolitan area of the United States, pseudonymously named Southampton. At the time of the study, Southampton enrolled approximately 14,000 students across 11 elementary schools, three middle schools, and three high schools. Southampton sought to provide teachers with high-quality professional development; therefore, the district employed content-focused coaches who engaged teachers in ongoing, job-embedded support in a single academic discipline (e.g., mathematics, English Language Arts, or technology). Southampton coaches did not evaluate teachers, had full-time release from teaching, and worked with teachers in one-on-one and group settings on instructional improvement issues throughout the duration of the school year.

For the current study, I partnered with Beth, an elementary school mathematics coach, and Barbara, an elementary school teacher. All participant and location names are pseudonyms. At the time of the study, Coach Beth was entering her fifth year as a Southampton mathematics coach. Before becoming a coach, Beth taught mathematics in fourth and fifth grades for six and two years, respectively. During interviews that were conducted with Coach Beth at the beginning of this research study to establish context, Coach Beth articulated a vision of ambitious and equitable mathematics instruction that aligns with research-based ideals from the National Council of Teachers of Mathematics (NCTM) (NCTM, 2014) regarding high-quality mathematics instruction. This vision included promoting student-controlled discourse, engaging students in formative assessment strategies to gauge student sensemaking, incorporating high-cognitive demand math tasks into instruction, and promoting conceptual understanding alongside procedural fluency. Entering her first year as a fourth-grade teacher, Teacher Barbara taught mathematics and science only. Teacher Barbara had requested coaching support from Coach Beth in the form of modeled instruction. As is typical during a three-part coaching cycle (Bengo, 2016), Coach Beth

typically started her coaching cycle with teachers by engaging them in a planning meeting, followed by either co-teaching, modeling, or observation with feedback, and then closing with a reflection meeting.

The data for this analysis came from a larger study that explored how school-based coaches leverage the one-on-one coaching activities of modeling and co-teaching to support teaching and learning (Saclarides, 2022b; Saclarides & Lubienski, 2021; Saclarides & Munson, 2021). Coach Beth was purposively selected (Yin, 2018) from the larger sample of coaches for the current analysis given that she was able to articulate how she supported teacher learning during modeling.

Data Collection

This analysis rests on three data sources: transcribed participant interviews, transcribed audio recordings of modeled lessons and accompanying field notes, and lesson plans.

I completed a total of four one-on-one, semi-structured interviews with Coach Beth and Teacher Barbara, which were on average 23 minutes long. Coach Beth was interviewed once at the beginning of the study primarily to establish context and understand her emic (Creswell & Poth, 2018), or insider's, perspective on supporting teacher learning during modeled instruction. Coach Beth was also interviewed before and after the modeling coaching cycle with Teacher Barbara to better understand her motivation for modeling instruction for Teacher Barbara and goals for teacher learning, as well as how she sought to support teacher learning while modeling. Teacher Barbara was interviewed after the modeling coaching cycle had ended¹ to understand: what she learned from the modeling episodes, the roles she embodied while Coach Beth modeled instruction, and her interactions with Coach Beth amid modeled instruction.

Additionally, I observed three modeled lessons, which were on average 65 minutes long. These modeled lessons were embedded in one coaching cycle that took place over the course of three consecutive days during Teacher Barbara's mathematics block. During each observation, I generated field notes that attended to verbal and nonverbal coach-teacher interactions. The audio-recordings from the interviews and modeled lessons were transcribed.

Last, Coach Beth shared lesson plans that she had written from a previous coaching cycle with Teacher Barbara. Typically, Coach Beth provided teachers with

scripted lesson plans when she modeled instruction. These plans contained three days of scripted lesson plans and all accompanying materials.

Data Analysis

The overarching purpose of this analysis was to better understand Coach Beth's emic perspective (Creswell & Poth, 2018) regarding how she intentionally fostered learning opportunities for teachers during modeling coaching cycles. I began by reading through all interview transcripts from Coach Beth to identify instances where she explicitly discussed how she supported teacher learning during modeling. This analytic reading led to the identification of three approaches: engaging the teacher in verbal asides during modeled instruction, providing the teacher with written asides in the scripted lesson plan, and scaffolding the observing teacher's responsibilities. To triangulate these interview findings (Miles et al., 2020), I examined other data sources (e.g., modeled lesson transcripts, field notes, documents) to potentially uncover additional approaches Coach Beth may have leveraged to support teacher learning amid modeling. Ultimately, I only identified confirming evidence in support of the three approaches she articulated through interviews and did not identify additional approaches.

Last, I used each of these three approaches separately as lenses to understand how Coach Beth leveraged these approaches in practice, as well as how these approaches supported Teacher Barbara's learning. Descriptions of how this analysis was performed for each approach are presented below.

Engaging the Teacher in Verbal Asides

I began by isolating all coach-teacher interactions from the three transcripts of observed modeled instruction, which I define as subsequent turns of talk where the coach and teacher verbally interacted with one another. When describing verbal asides during interviews, Coach Beth stressed that during these kinds of interactions, she briefly paused instruction and made her thinking or reasoning available to the observing teacher, which research points to as being a marker of high-quality discourse to augment teacher learning (Lefstein et al., 2020). For example, this may have included instances in which Coach Beth justified her pedagogical decision making or provided evidence to support claims she made about student sensemaking to the observing teacher. Next, I separated these coach-teacher

1 I had intended to interview Teacher Barbara at the beginning of the modeling coaching cycle as well, but this unfortunately did not happen given scheduling conflicts.

interactions into two categories: those that contained reasoning or evidence to support claims that were made and those that lacked reasoning or evidence to support claims that were made. Interactions that were not categorized as verbal asides included instances in which the coach and teacher interacted about logistical items, such as technology functionality, materials, or student behavior, that were necessary to move the lesson forward but did not seem to promote teacher learning.

After identifying the verbal asides from the observed modeled lesson transcripts, I returned to my field notes, toggling back and forth between my field notes and lesson transcripts, to match up each identified verbal aside from the lesson transcript with confirmatory evidence from my field notes that, indeed, a verbal aside was taking place. My primary purpose in revisiting my field notes was to triangulate findings by method (Denzin, 2001). Last, I revisited Teacher Barbara's interview data to look for evidence of whether and how the verbal asides benefitted her or impacted her learning. Barbara discussed such benefits of the verbal asides in response to interview questions such as "What did you learn from the coaching cycle?" and "Please reflect upon the brief interactions you had with Coach Beth during modeled instruction."

Providing the Teacher with Written Asides in the Scripted Lesson Plan

I started by reading through all lesson plans provided by Coach Beth to identify instances in which Coach Beth included written asides. When describing written asides during interviews, Coach Beth stated that written asides contained reasoning as she sought to give teachers access to her thinking in the lesson plans or details about her anticipation of student sensemaking in the lesson plans. Similar to the verbal asides discussed above, prior research indicates that by making details about thinking or reasoning explicit, this can augment teachers' learning opportunities (Lefstein et al., 2020). Using this definition, I identified eight written asides that Coach Beth embedded into lesson plans. Last, I revisited Teacher Barbara's interview data to uncover whether and how these written asides may have benefitted her or furthered her learning.

Scaffolding the Observing Teacher's Responsibilities

Last, Coach Beth pointed to the importance of carefully scaffolding the observing teacher's responsibilities as the coach modeled instruction, gradually providing the teacher with increasing levels of responsibility throughout the coaching process. Thus, I read through Coach

Beth's transcripts to identify the three specific teacher roles she mentioned: sit, observe and take notes; circulate with the coach; and share pedagogical responsibility for enacting instruction. I then used these roles as lenses to re-explore the modeling lesson data, in particular my field notes. By looking for evidence of whether and how Teacher Barbara embodied these roles during modeled instruction, I again sought to triangulate findings by method (Denzin, 2001). Last, I looked for evidence in Teacher Barbara's interview data to understand better how taking on carefully scaffolded roles amid modeling benefitted her or supported her learning. Barbara discussed such benefits of the scaffolded teacher roles in response to the interview question, "Please reflect on some of the roles that you took on as Coach Beth modeled instruction." I also took this as an opportunity to uncover additional teacher roles amid modeling mentioned by Teacher Barbara that perhaps Coach Beth had not mentioned, but did not identify any new roles.

Findings

Engaging the Teacher in Verbal Asides During Modeling

Of the 26 identified coach-teacher modeling interactions, seven (i.e., 27%) were coded as verbal asides as they were marked by reasoning and had the goal of promoting teacher learning. In general, these verbal asides either took place during whole group instruction as the coach paused briefly to engage with the teacher, or during group work time as the coach and teacher jointly circulated. Furthermore, these verbal asides tended to focus on: how the coach and teacher would sequence and select student work samples, the coach's and/or teacher's perceptions of student thinking and understanding, and students who appeared to be struggling. For a fuller description of the kinds of topics that coaches and teachers discuss during modeled instruction utilizing a larger dataset, see Saclarides and Munson (2021).

The following exchange illustrates a verbal aside that took place in the first modeled lesson. Coach Beth and Teacher Barbara discussed the timing for completing their Contexts for Learning unit, which was a curricular resource provided by the school district, with students:

Coach Beth: *So it's like, they're, again, the hard part is that we're actually having to work backwards. So, in hindsight, we probably should have done this in January.*

Teacher Barbara: *Yes.*

Coach Beth: *When they didn't have any-*

Teacher Barbara: *Prior division knowledge.*

Coach Beth: *Well, yeah, just-*

Teacher Barbara: *At least a strategy.*

Coach Beth: *That's right. Like, no use with a strategy.*

In this exchange, Coach Beth and Teacher Barbara discuss how the timing for this unit was not optimal. Importantly, they co-reasoned that because students had already been introduced to the standard algorithm for long division, it was difficult to try to encourage students to use student-invented strategies while accessing the embedded tasks.

To provide a parallel example, during their second modeled lesson, Coach Beth and Teacher Barbara engaged in the following aside in which they discussed their observations of student sensemaking and how to differentiate instruction for two students who appeared to be struggling with a mathematics task:

Coach Beth: *I think that...if I were to do this again I would probably put the two of them [students] together and give them a smaller problem and give them cubes to be able to figure it out.*

Teacher Barbara: *Okay.*

Coach Beth: *Because he's having trouble staying engaged... Josie's keeping him engaged. But yeah I think that probably would be... Josie is...Josie's actually I think has more understanding in the problem and so I don't necessarily think that if I were doing that again I would move her. But, I think those two probably could have used smaller problems.*

Teacher Barbara: *Yeah.*

In this exchange, Coach Beth made her thinking available to Teacher Barbara regarding how to provide further scaffolds and supports for two students who appeared to be struggling. Specifically, Coach Beth would provide the students with manipulatives so they could concretely model the task, and give them a simpler version of the task with smaller numbers.

During an interview, Teacher Barbara reflected on her verbal asides with Coach Beth during modeled instruction:

There were little conversations about what to do with some of my kids who were a little bit lower academically and just trying to figure out, how do I support them? How do I allow them to succeed in this task without changing it completely and taking it out of context? But, they're still working on a problem using water bottles or using the teacher lounge or whatever the context was. And so, there were

several of those conversations...that were just kinda like okay this group is done early, what do I do with them? And so it was a lot of just kind of checking in, seeing if we were on the same page, getting her, racking her brain for advice on different things to do with different students and how to keep them engaged no matter...what their academic ability level was.

In this quote, Teacher Barbara discussed how the verbal asides enabled her to seek out Coach Beth's advice as she modeled instruction. The asides provided opportunities for Teacher Barbara to understand better how to differentiate for students who were struggling, or finished early.

Providing the Teacher with Written Asides in the Scripted Lesson Plan

In addition to engaging Teacher Barbara in verbal asides while modeling instruction, Coach Beth further sought to augment Teacher Barbara's learning opportunities by including written asides in the scripted lesson plans. At the beginning of her modeling coaching cycles, Coach Beth typically provided teachers with scripted lesson plans that detailed her instructional plans with students. Similar to the verbal asides, the written asides were marked by reasoning as Coach Beth sought to give teachers access to her thinking and reasoning or insight about how she anticipated students might engage with the lesson's content.

Across the three days of lesson plans that were analyzed, there were eight instances in which Coach Beth either gave Teacher Barbara access through writing to her reasoning or provided a written narration of her anticipation of student thinking. Instead of being isolated to specific sections of the lesson plan, for example exclusively in the lesson plan closing, these eight verbal asides could be found throughout all sections of Coach Beth's lesson plans. Furthermore, the written asides tended to focus on pedagogy, student thinking and understanding, and mathematics content.

To illustrate, Coach Beth wrote the following in her day one lesson plans:

I am anticipating making a teacher move here. I think this task is a little bit difficult for the students to complete at this point in the unit, but will provide motivation for getting through the other task of learning about factors and multiples. Therefore, I am anticipating making a teacher move of scaffolding the activity into thinking about multiples. I will give a 100 chart to every student. They will go through the steps of coloring the multiples to see

what generalizations can be made about the multiples of 2 and 3 and possibly 4 if we can get to it.

Coach Beth also wrote an aside to give Teacher Barbara access to her reason for providing students with a particular entry point for solving a math task:

Tell the students the first place to start thinking might be to go back and re-read the problem. This allows students who do not have an entry point to the task to have something to be thinking about (a question I could ask about something I don't understand) and allows students who are ready to share to have one thing they think is important to share.

During her interview, Teacher Barbara expressed her appreciation for having access to Coach Beth's thinking in this way:

Getting to hear her predict and anticipate what questions the students were gonna have and how they were gonna respond to different things was really helpful. Because as a first-year teacher I can think of it on my own, and I can try, but at the end of the day I don't have that experience like she has. She's so knowledgeable about all of those things. And so, it was interesting and very, very helpful.

As Teacher Barbara highlights, through teaching children mathematics for eight years and coaching teachers in mathematics for five years, Coach Beth had built up a knowledge base that enabled her to predict how students would engage with content and anticipate potential student misunderstandings. Hence, having access to Coach Beth's thinking seemed to benefit Teacher Barbara as she found this practice "very helpful."

Scaffolding the Observing Teacher's Responsibilities

Last, to support Teacher Barbara's learning during modeling, Coach Beth scaffolded the observing teacher's responsibilities and gradually gave Teacher Barbara more responsibility as the coaching process unfolded. At the beginning of her modeling coaching cycles, Coach Beth expected teachers to sit, observe, and take notes primarily. During an interview, Coach Beth revealed this expectation for teachers during modeling coaching cycles: "She [Teacher Barbara] typically will just sort of observe and take notes. She'll have...[a] checklist and opportunity to just take notes." In reflecting on her early participation in the modeled lessons, Teacher Barbara agreed that she primarily sat, observed instruction, and jotted down notes:

I sat with a notebook, and I wrote down everything she did and any questions I had or any questions she asked that I thought oh that would be helpful to ask kids moving forward. And so I really just was a learner and trying to soak up just as much information as I could.

This was also substantiated by field notes that were generated during observations.

As the coaching cycle progressed, Coach Beth allowed Teacher Barbara to take on additional responsibilities. For example, she encouraged Teacher Barbara to circulate with her as she monitored students during group work time. During such circulation episodes, Teacher Barbara might interact with Coach Beth by asking her a question or conferring with her about a particular student:

[A]s the students start working, she'll...just kind of follow me and listen to me talk to the kids. She might ask me why did I ask that question or go, 'I see what you were getting at.' So, it helps me to have the opportunity to make my asides and say, 'Okay, the reason I'm asking this question [is] I want them to see' or 'I want to push them away from this.'

This, too, was substantiated by field notes. For example, during the last 10 minutes of the second observed modeled lesson, teacher Barbara stopped taking notes and instead circulated with Coach Beth given that students were now working in small groups and whole group instruction had ended. The dyad focused their attention on a particular group of students who they perceived needed additional support accessing the task.

After having the opportunity to primarily remain in the learner role by sitting, observing, taking notes, and circulating, Coach Beth started to give Teacher Barbara more shared pedagogical responsibility for enacting instruction. As Coach Beth discussed, "[B]y Day 3 [of the coaching cycle], she'll...take over part of the lesson....Just kind of depending on how comfortable she's feeling with the material and the release and the strategies that kids will use." Thus, as the coaching cycle progressed and Teacher Barbara's confidence grew, she was able to move from observer to lead instructor for several parts of the lesson.

Ultimately, Teacher Barbara appreciated that her participation in modeled instruction was carefully scaffolded. She liked having the opportunity first to be a learner and primarily sit, observe and take notes before

taking on more pedagogical responsibility for enacting instruction. Teacher Barbara shared:

I...like...the way that the coaching was set up...she modeled a day, and then she modeled for the first half [of a day], and then I...followed for the second half, and then I did it by myself. And so, I think the way that that [the modeling coaching cycle] was set up... I'm like...I wanna see it. I wanna hear it. I wanna... really be a part of it. Be able to learn it. So, the way it was set up in that way kind of allowed for me to think through some challenges that have taken place beforehand and kind of see how she handles those.

I now turn to the discussion where I situate this study's findings in the research literature, and provide implications for practice and research.

Discussion and Implications

The overarching purpose of this investigation was to understand better how one mathematics coach supported teacher learning as she modeled mathematics instruction. Coach Beth used three distinct, yet mutually reinforcing approaches to enhance Teacher Barbara's learning opportunities during modeling: engaging the teacher in verbal asides, providing the teacher with written asides in the scripted lesson plan, and scaffolding the observing teacher's responsibilities. Previous research primarily points to the importance of providing teachers with an image of high-quality instruction amid modeling (Feiman-Nemser, 2001; Lord et al., 2008). Hence, this study makes an important contribution to the professional development literature by illuminating other approaches coaches can use to help teachers process these representations of practice and further augment their learning opportunities.

Although all three approaches are related, two of the approaches, engaging the teacher in verbal asides and providing the teacher with written asides in the scripted lesson plans, are more similar in their focus. That is, what unites these two approaches is their focus on making the coach's reasoning available and transparent to the teacher so that the teacher can understand, for example, reasons undergirding the coach's pedagogical decision-making and evidence to support claims about student thinking. Without such access to the coach's reasoning, the teacher may make assumptions that may or may not align with what the coach intended, potentially leading to a missed learning opportunity. Given that previous research on teacher professional discourse

found that providing reasoning or evidence for claims made can be generative for teacher learning (Lefstein et al., 2020), this is a practice coaches should consider weaving into their work with teachers to enrich teachers' learning opportunities.

As part of Coach Beth's third approach to support Teacher Barbara's learning, she carefully scaffolded the various roles Teacher Barbara might embody amid modeling. While understandable that a teacher may find it difficult to relinquish control of their classroom, attending to tasks other than observing the coach's teaching may unintentionally shift a teacher's focus and thus limit their learning opportunities during modeled instruction. Hence, it is noteworthy that Coach Beth intentionally scaffolded Teacher Barbara's roles as she modeled instruction, ensuring that the teacher primarily observed and took notes before taking on more roles such as circulating with the coach and sharing pedagogical responsibility for instruction. This aligns with both theoretical (Lave & Wenger, 1991) and empirical (Clarke et al., 2014; Collet, 2015) research which indicates that teacher learning may be augmented when they are provided with a series of carefully scaffolded experiences, or roles in this case, by a more experienced other, such as a coach.

This research has implications for school districts, as well as researchers. Regarding practice-based implications for school districts, coaches may often be told that they should model instruction for teachers. Still, they may not receive proper guidance on leveraging this coaching activity to maximize teacher learning. Hence, it may be beneficial if coaches are provided with high-quality professional development that is ongoing and coherent, involves active learning opportunities, and requires collective participation from coaches as part of a coaching community (Desimone, 2009) to help them understand how to support teacher learning most effectively amid modeling. Such professional development may focus on discussing the three approaches illuminated in the current study, giving coaches time to plan for an upcoming coaching cycle involving modeling and allowing coaches to engage in role play scenarios related to modeling instruction.

Regarding research-based implications, given that the current analysis is based on data that was collected from only one coach-teacher dyad, future research should seek to study the approaches coaches leverage to prompt teacher learning from a larger, more diverse sample of coaches and teachers. Additionally, coaches may need professional development in order to learn

how to enact the three approaches detailed in this study to support teacher learning amid modeled instruction. Thus, future research should explore how district-level administrators can most effectively support coaches through professional development as they learn how to enact these coaching practices. Furthermore, given that the current investigation only explored episodes of modeling between the Coach Beth and Teacher Barbara, it is unknown the extent to which the teacher's practice was impacted as a result of working with her coach. Hence, future investigations should consider exploring this important connection—the relationship between coaching and changes in teachers' practice—to better understand the impact of coaching. Last, future research may further unpack the affordances and constraints for teacher learning of each approach discussed in this study.

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