Supporting Provisionally-licensed Teachers Using eCoaching in a Distributed Internship

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Abstract

There is a critical shortage of special education teachers. To address this shortage, states have allowed alternative licensure paths such as issuing provisional licenses in order for individuals to take teaching positions while they complete coursework for the teaching license. These provisionally-licensed teachers are expected to fill the roles of fully-licensed teachers on day one. In this paper, we describe a pilot program for provisionally-licensed teachers in which we incorporated eCoaching and bug-in-ear coaching in the first semester and second semester of coursework. Results are largely positive. Implications are discussed.

Keywords: eCoaching, coaching, technology, internship, provisional license

There is a continuing shortage of special education teachers in the Commonwealth of Virginia. According to a preliminary report, teacher shortages have increased by 40% over the past 10 years. Factors such as high attrition rates and declining enrollment in teacher education programs have been blamed (Advisory Committee on Teacher Shortages, 2017). One way the Commonwealth has addressed the problem in critical shortage areas such as special education is by granting provisional teaching licenses to individuals who have a college degree, have completed one course toward licensure, and have secured a position in a school (Va. Administrative Code, 2018). Once the provisional license is granted, these individuals typically enroll in coursework to complete licensure requirements in three years.

In schools, these provisionally-licensed teachers take on the responsibilities of fully licensed teachers on day one. In most cases, though they are completing coursework, they do not have the option for the scaffolded introduction to teaching or the mentoring that traditional

teacher candidates do through integrated field experiences and internship. Mentoring programs typical in school divisions may address components of the job such as individualized education plans (IEPs) or data collection but mentor teachers may not be given the time by administration to regularly meet with, observe, and provide feedback on instruction to provisionally-licensed teachers (Whitaker, Good, & Whitaker, 2019). In preparation programs, this direct observation and feedback on instruction usually occurs in internship, often a culminating activity late in the program sequence. Unfortunately, this may be too late for provisionally-licensed teachers because they have been teaching in the classroom for almost two years when they take an internship course.

Internship and Coaching

According to research, internships can have a powerful impact on teacher candidates in traditional preparation programs (Goldhaber, Krieg, & Theobald, 2017). Typical internships are usually culminating experiences in which a candidate slowly takes over the responsibilities of planning, instruction, and assessment from a mentor teacher, with support and coaching along the way (Nagro et al., 2016). A university supervisor is assigned who observes the candidate's instruction and evaluates the candidate's mastery of specific skills outlined by the university program. Several factors are critical to the relevance and effectiveness of the internship, including: (a) alignment between coursework and internship experiences (Leko & Brownell, 2011), (b) collaboration and relationships that allow for risk-taking and feedback (Cook, 2007), and (c) opportunities for practice (Recchia & Puig, 2011).

Coaching is a different approach to the traditional internship model and provides a means of scaffolding support and providing feedback to encourage the risk-taking and opportunities for practice so necessary for beginning teachers (Knight, 2007). Coaching, providing frequent

feedback in a non-evaluative capacity, addresses the concern that isolated coursework and one-shot professional development sessions do not change practice. Candidates can make connections between coursework and the classroom through practice with deliberate and specific feedback (Leko, Brownell, Sindelar, & Kiely, 2015). Coaching is done in different ways (Marzano & Simms, 2013); however, most coaching models follow the pattern of initial classroom observation, development of goals for improvement, subsequent classroom observations, and reflection/feedback. Quality coaching requires that coaches develop relationships with teachers that include setting goals, providing feedback, and reflecting on a more frequent basis than traditional professional development or supervision (Knight, 2007).

Coaching can be critical for provisionally-licensed teachers because they are responsible for instruction immediately, without the gradual release with practice and feedback that traditional candidates receive. However, to do a quality coaching job, the need for frequent engagement between the coach and teacher requires significant time and resources (Knight, 2007). Programs must find ways to balance these requirements with available resources. New technologies such as Bluetooth devices, web-based video conferencing, and screen recording have provided opportunities for increasing the ability of coaches to effectively reach teachers and for providing live, in-the-moment feedback, even with limited resources (Wake, Dailey, Cotabish, & Benson, 2017). Using these technologies allows for (a) increased number of coaching opportunities, (b) opportunities to provide quality coaching without disruption to instruction, and (c) improvements in teachers' feelings of support and levels of implementation fidelity (e.g., Coogle, Ottley, Storie, Rahn, & Burt, 2017; Rock et al., 2014).

Making Internship More Meaningful

At a public University located outside of the District of Columbia in the United States, more than 50% of special education teacher candidates are provisionally-licensed teachers in local school systems. Many of them participate in University coursework through a cohort program with fellow candidates from their division. For two years, they attend courses taught by faculty one evening per week (see Table 1 for the course sequence). Either during or after they complete one of the methods courses, they enroll in a three-credit internship course where they are assigned a mentor teacher and a university supervisor. The mentor teacher is generally another special educator in the same building and the university supervisor is either an adjunct or full-time faculty member required to complete three observations with a debrief session after each. A debrief session may include a written or verbal sharing of performance-based feedback

Table 1

Program Course Sequence

Course Number	Course Name	Semester Taken
EDSE 501	Introduction to Special Education	Before entry into program
EDSE 540	Characteristics of Students with Disabilities who Access the General Curriculum	Fall Year 1
EDSE 502	Classroom Management and Applied Behavior Analysis	Spring 1 Year 1
EDSE 662	Collaboration and Consultation	Spring 2 Year 1
EDSE 503	Language Development and Reading	Summer Year 1
EDSE 627	Assessment	Fall Year 2
EDSE 628	Elementary Reading, Curriculum, and Strategies for Students with Disabilities who Access the General	Spring 1 Year 2

	Curriculum	
EDSE 629	Secondary Curriculum and Strategies for Students with Disabilities who Access the General Curriculum	Spring 2 Year 2
EDSE 783	Internship	Spring Year 2
EDSE 544	Adapted Instruction Methods and Transition for Secondary Learners	Summer Year 2

to the teacher after an observation that includes specific strengths of one's instruction and areas for improvement. The debrief session may include questions, suggestions, resources, and/or reminders for the teacher. Anecdotally, University instructors reported that several provisionally-licensed teachers in cohort courses have expressed frustration with the demands of the special education teacher role and voiced being overwhelmed with responsibilities. For example, many of them co-teach with general educators and are not sure how to participate in instruction. Or they experience classroom management issues and are not sure how to establish consistent routines or reinforce positive behaviors. Consistent with recent program evaluation data, some graduates from the program reported that the internship provided too few opportunities for feedback, came too late in the program, the feedback from university supervisors was not helpful, and the university supervisors were often disconnected from the coursework (College of Education and Human Development, 2017). Therefore, we began a pilot program (**D**ynamic **C**oaching **O**utreach **P**rogram; DCOP) in our special education teacher preparation program in which we distributed the internship across coursework and incorporated eCoaching as a means to provide frequent feedback on instruction to a cohort of provisionally-licensed teachers in a local school division. Using research (e.g., Kretlow & Bartholomew, 2010; Rock et al., 2014), literature (Knight, 2007; Marzano, 2013), and funding from the state department of education,

this case study provides a preliminary description of our process to define quality coaching, to provide it as consistently as possible, to distribute it across the provisionally-licensed teachers' program, and to evaluate its feasibility. The case study was guided by the following research questions:

1. How can an internship with eCoaching be feasible with provisionally- licensed special education teachers enrolled in initial coursework?
2. How do provisionally-licensed special education teachers perceive the internship with eCoaching when experienced early in their coursework?

Method

The purpose of this descriptive case study is to describe the first two semesters of a distributed internship model that incorporated eCoaching to determine if providing this type of support would (a) be feasible for implementation and (b) make the internship meaningful to provisionally-licensed teachers.

Participants

Two groups participated in this case study: (a) 16 provisionally-licensed special education teachers participating in a cohort for licensure coursework and (b) two faculty members serving as instructors and coaches.

Provisionally-licensed teachers

Sixteen provisionally-licensed special education teachers, newly enrolled in the **D**ynamic **C**oaching **O**utreach **P**rogram (DCOP) participated in this case study. See Table 2 for demographic characteristics. These candidates began the program in the fall of their first semester of their initial teaching position. None of the candidates had previous teaching experience; all had successfully completed the introductory required course, EDSE 501

Introduction to Special Education. To participate in the pilot program, candidates had to be (a) full-time teachers, (b) assigned to positions that required instruction of students with disabilities who accessed the general curriculum, and (c) concurrently enrolled in EDSE 540 Characteristics of students with disabilities who access the general curriculum.

Table 2

Teacher Candidate Participants

Candidate	Gender	Teaching Assignment
Ginny	F	Elementary (general education classroom; self-contained)
Danica	F	Elementary (general education classroom; self-contained)
Angela	F	Middle (6-8) (general education classroom; self-contained)
Rachel	F	Middle (6-8) (self-contained)
Tammy	F	Middle (6-8) (general education classroom; self-contained)
Katrina	F	Middle (6-8) (general education classroom; resource)
Melinda	F	Middle (6-8) (general education classroom; self-contained)
Karen	F	Middle (6-8) (general education classroom; self-contained)
Kristy	F	High (itinerant; transition)
Jancy	F	High (general education classroom; self-contained)
Hannah	F	High (general education classroom)
Jenny	F	Elementary (general education classroom; self-contained)
Mary	F	High (general education classroom; self-contained)
Chuck	M	Elementary (self-contained)
Victoria	F	High (general education classroom)

Note. All names are pseudonyms.

Faculty/Coaches

The first two authors, faculty members in the program, participated in the pilot program as instructors and coaches. The first author is an Assistant Professor in special education with over 20 years of experience in teacher education. She has received training in eCoaching with bug-in-ear (BIE) technology and worked with the second author to develop a program of eCoaching within the program's traditional internship model. In this pilot program, the first author taught the course, EDSE 540 Characteristics of students with disabilities who access the general curriculum, in the first semester of the program and concurrently served as university supervisor and coach to the candidates. The second author is an Associate Professor in special education with over 15 years of experience in teacher education. Through a federally funded, 325T program improvement grant, she facilitated and participated in training for faculty in eCoaching. She also supported the development of eCoaching within the traditional internship program and has implemented it over the course of four semesters. The second author served as instructor for the candidate's second course, EDSE 502 Classroom management and applied behavior analysis, and concurrently served as university supervisor and coach to the candidates.

Data Sources

Two data sources were used to determine if the internship was meaningful for the provisionally-licensed teachers and feasible for implementation. The first data source was coaching records from the university supervisors. These records included number of coaching sessions, types of coaching sessions (virtual observations with debrief or bug-in-ear coaching), number of follow up sessions, and general notes about the observation session. The second source was an anonymous survey administered to the candidates at the end of the first and second internship experiences. The researcher-created survey (see Table 5) consisted of six

Likert scale questions about the internship experience, one question about the coaching experience, one question rating the overall internship process, and three open-ended questions about the coach and the feedback provided. The six Likert scale questions about the internship experience and the question rating the overall internship process were drawn from a survey used by the School of Education (SOE) to evaluate all internships in all programs. The Likert scale question regarding the coaching experience and the three open-ended questions about the coach and the feedback provided were developed for this case study. They mirrored the open-ended questions used in the SOE survey for all internships; however, each question was modified to ask about eCoaching, specifically (see Table 5). Quantitative data (e.g., Likert scale results, number of observations) were analyzed by calculating descriptive statistics such as frequencies and means. Qualitative data (e.g., open-ended question responses, observation notes) were open-coded by the first and second authors and similar codes were collapsed into categories (e.g., "couldn't hear the co-teacher" and "video froze on several occasions" collapsed to technology issues category). For each category, the authors identified characteristics and dimensions of the category, using text directly from the sources. Authors then met to discuss these characteristics and dimensions and to verify agreement (Saldana, 2016).

Procedure

The standard preparation program for provisionally-licensed special education teachers at the targeted University includes approximately two years of coursework to satisfy licensure requirements, a total of 33 credit hours with an optional six credits to earn the Master's degree (see Table 1). For provisionally-licensed teachers who hold positions in local school divisions, licensure courses are administered in a cohort model where candidates attend classes together with other provisionally-licensed teachers in the division once a week throughout the program.

There are generally four semesters per year: fall (10 weeks), spring 1 (9 weeks), spring 2 (9 weeks), and summer (9-10 weeks). Candidates complete their developmental field experiences in the schools and classrooms within which they work. Candidates also complete their internship in their own classrooms either while taking one of the two methods courses or after completing them. They are assigned a mentor teacher who is a fully licensed special educator at the school and a university supervisor who is either a full-time or adjunct faculty member of the University. The internship experience extends through the semester in which the candidate is enrolled.

The internship requires that candidates teach a total of 150 hours (75 indirect and 75 direct teaching hours) and be formally observed by a university supervisor at least three times throughout the semester. The intern, mentor teacher, and university supervisor gather evidence to verify that the intern can independently meet expectations on an internship rubric derived from both the Interstate New Teacher Assessment and Support Consortium (InTASC) and Council for Exceptional Children (CEC) standards for initial teacher licensure (Council of Chief State School Officers, 2011; CEC, 2015). In addition, each mentor teacher completes a disposition assessment of the intern and the intern completes a technology portfolio and a reflection assignment.

Pilot DCOP program description

The pilot DCOP program included two main components: (a) distributed internship experiences across coursework and (b) eCoaching with bug-in-ear technology in the internship. The distributed internship experiences included splitting the end-of-the-program internship into three, one-credit internships that were taken concurrently with coursework. Internship 1 took place in the first semester of the program, concurrently with EDSE 540. The first author served as both instructor and university supervisor. The focus of the internship experience and feedback was on InTASC standard 1 (Learner Development), 2 (Learning Differences), and 9

(Professional Learning and Ethical Practice). See Table 3 for the internship crosswalk. Candidates were required to complete 25 hours of direct teaching and 25 hours of indirect teaching. The university supervisor completed eCoaching sessions and at least one formal,

Table 3

Internship Crosswalk

Semester	Course Number	Course Title	Internship Component	Internship Rubric Addresses
Fall	EDSE 540	Characteristics of Students who access the General Curriculum	1 credit EDCI 790 (25 hrs direct and indirect MAX)	InTASC 1 learner development, InTASC 2 learning differences; InTASC 9 Professional learning and ethical practice
Spring 1	EDSE 502	Classroom and Behavior Management	1 credit EDCI 790 (25 hrs direct and indirect MAX)	InTASC 3 learning environments; InTASC 6 assessment
Spring 2	EDSE 662	Consultation and Collaboration		
Summer	EDSE 503	Language Development and Reading		
Fall	EDSE 627	Assessment		
Spring 1	EDSE 628	Elementary Methods	1 credit EDCI 790 (based on their classroom grade level; 25 hours direct and indirect MAX)	InTASC 4 content knowledge, InTASC 5 content application; InTASC 7 planning for instruction; InTASC 8 instructional strategies
Spring 2	EDSE 629	Secondary methods		
Summer	EDSE 544	Transition		

written observation. Internship 2 took place in the second semester of the program, concurrently with EDSE 502. The second author served as both instructor and university supervisor. The focus of the internship experience and feedback was on InTASC standard 3 (Learning

Environments) and 6 (Assessment). Candidates were again required to complete at least 25 hours of direct teaching and 25 hours of indirect teaching. In addition, they were required to complete a reflection activity using a videotape of an observed instructional session. The university supervisor completed eCoaching sessions and at least one formal, written observation. In year 2 of the DCOP program, Internship 3 will take place concurrently with EDSE 628 and EDSE 629 with the first two authors serving as both instructors for the courses and university supervisors. At that time, the focus of the internship experience and feedback will be on InTASC 4 (Content Knowledge), 5 (Content Application), 7 (Planning for Instruction), and 8 (Instructional Strategies). Candidates will complete at least 25 hours each of direct and indirect teaching. The university supervisor will complete eCoaching sessions and one formal, written observation.

eCoaching

Quality coaching is providing feedback to candidates in order to increase their implementation of evidence-based practices through an individualized and targeted plan-do-study-act process (Fixsen, Schultes, & Blasé, 2016). It requires frequent engagement with a candidate and a degree of trust in order to try new strategies, reflect, and accept both positive and constructive feedback. To provide coaching in the first year of DCOP, university supervisors used three basic technologies: videoconferencing platform (WebEx), Bluetooth headsets, and email. For virtual observations, candidates scheduled specific times with university supervisors, sent information about the lesson to be observed, and scheduled a debrief session. At the beginning of the semester, candidates were given a WebEx link to use. They would place their school division-issued laptop at the back of the room, aiming the camera at themselves and not the students, and connect to WebEx at the appointed time. University supervisors would connect to WebEx at the same time and observe the lesson. After the lesson, the university supervisor and

candidate would connect again to debrief or would reflect/communicate via email to debrief. In order to provide opportunities for video analysis at least once per semester, university supervisors used the WebEx screen-recording feature to make a video of the observation. The link to the recording was sent to the candidate for viewing and to complete the reflection assignment.

For BIE coaching, the sessions were set up similarly except that the candidate would sync a Bluetooth headset with the laptop and configure WebEx to allow the audio out to go only to the headset. University supervisors would establish verbal cues ahead of time that aligned with the candidate's goals (e.g., Be specific. Nice specific feedback! Rephrase as a question.) and would discuss what the candidate's response to the cue would be. See Table 4 for cue and response samples. University supervisors would coach on the target behaviors or goals throughout the instructional session, lasting about 20 minutes. The university supervisor would then connect with the candidate after the bug-in-ear session for follow up and debriefing (see Regan & Weiss, 2019).

Establishing rapport and goal-setting

Each semester, the instructor of the course also served as the university supervisor. This allowed the university supervisor to develop relationships and rapport with candidates individually, outside of the coaching experience. It also allowed for a forum to collaboratively discuss, observe, and plan for using targeted teaching skills with fidelity in the classroom. For example, EDSE 540 focused on specific instructional behaviors (e.g., explicit instruction to include student engagement, opportunities to respond, feedback) in the first semester and EDSE 502 focused on behavior management skills (e.g., verbalizing and reinforcing behavioral expectations, increasing use of positive praise) in the second semester. Within these skill areas,

university supervisors set goals with the candidates (e.g., increase frequency of praise statements) and focused observations and coaching on those specific areas (see Table 3). For example, many of the candidates used global, positive feedback statements such as, "Good job!"

Table 4

Sample Coaching Goals, Cues, and Responses

Directive Statement ➢ Use a replacement behavior. ➢ Do something specific again. ➢ Tell what to do next. ➢ Incorporate component of explicit instruction.	**Coach says:** *Rephrase as a question.* (e.g., "Nimbus clouds are dark, stormy clouds.")	**Teacher should:** Turn what you just said into a question. (e.g., "What are nimbus clouds?" or "What type of clouds are dark and stormy?")
	Coach says: *Use the same words.* (e.g., Teacher initially says, "Nimbus clouds are dark, stormy clouds" then later says, "Nimbus clouds are black and rainy clouds.")	**Teacher should:** Plan and use the same words to define/describe critical vocabulary at all times. (e.g., Teacher initially says, "Nimbus clouds are dark, stormy clouds" and later also says, "Nimbus clouds are dark, stormy clouds.")
	Coach says: *Model it.* (e.g., Teacher says, "When we begin to solve an equation, we want to get all of the X's on one side. I do that by adding -1 to both sides" ***but*** it is all done through talk or with a completed example on the board)	**Teacher should:** Work through the activity/skill as if you were a student, showing every step (e.g., Teacher says, "When we begin to solve an equation, we want to get it to a form that looks like this x=___" ***and*** actually do the problem on the board or SMART Board; if it's a skill or activity, do an example for them)
	Coach says: *Have the students do it with you.* (e.g., The teacher has provided several examples and models, but has not elicited student feedback or help working through the examples (no guided practice). Then, the teacher gives them the task to complete at their desks.)	**Teacher should:** While modeling, ask students for next steps or next answers so that you can provide feedback. (e.g., Put an example on the board. Begin to work on it by asking questions of the students, "What do I do first? Ok. Like this? What's next? How do I find that? How did you figure that out?")

The goal for virtual observations and for bug-in-ear coaching may have been to increase the number of specific feedback statements. The bug-in-ear coaching statements might have been, "Be specific. Tell him exactly what you liked." In debriefs following the virtual observation, the university supervisor would often share counts of specific feedback statements and general feedback statements and video of those observations allowed candidates to identify alternative, more specific statements when general ones were used.

Results

In semester 1 of the pilot, the first author conducted 28 eCoaching sessions and 13 bug-in-ear sessions for 13 candidates. In semester 2, the second author conducted 25 eCoaching sessions for 13 people and 22 bug-in-ear sessions for 11 people. In semester 1 during EDSE 540, 11 of 16 candidates completed the survey and all rated questions 1-5 about the internship at Agree or Strongly Agree. All candidates gave an overall rating of the university supervisor as 5 (Strong). Suggestions for the internship included face-to-face feedback as soon as possible (for virtual observations) and notes of technology issues (discussed below). All results are in Table 5. In semester 2 during EDSE 502, 11 of 16 candidates completed the survey and all rated questions 1-5 about the internship at Agree or Strongly Agree. Ten candidates gave an overall rating of the university supervisor as Strong with one rating of Neutral. Similar to the responses from semester 1, participants expressed discomfort with the technological aspects of the internship (e.g., hard to hear sometimes).

Open-ended responses were largely positive. Candidates across both semesters reported that they agreed or strongly agreed that they received accurate, timely feedback and useful recommendations from their coach. They also unanimously reported that the coaching experience was a supportive and positive learning space. One candidate shared, "She really

makes you delve into the 'Why' behind every action." Another identified a benefit to the use of technology when coaching, noting "Having my coach visit via technology helped her to see the class exactly as it was with no influence from another person being in the classroom." The debriefing exchanges were especially appreciated by the candidates, with one sharing "she was able to provide very specific feedback with a significant number of glows and grows." Another added, "[the feedback] enabled me to reflect and improve."

Another candidate commented, "I love how positive the exchange was. Although the [coaching] process as a whole is intimidating, I always felt like the feedback was encouraging and meaningful." Additionally, the candidates recognized value in watching themselves teaching on video and the specific written feedback sent via email that included 'glows' and 'grows.' One candidate claimed, "I loved the internship taking place during the first year of teaching. It is great to have immediate feedback on teaching techniques and suggestions to improve delivery and classroom management."

The candidates all commented that they believed coaching made the coursework connect to their classroom. Using technology meant that the university supervisors did not interrupt classroom instruction to conduct observations and they were able to provide far more coaching opportunities than in standard internship practice. Following the second semester, all candidates noted that the amount of "touch points" they received for coaching was "just the right amount" of support.

Technology Difficulties

In observer notes and open-ended survey responses, issues with technology were described as challenges. The two main technology difficulties described included either video or audio not working. This often was a result of video or audio being blocked by the school's

firewall and not being able to get audio through the Bluetooth headset device. Though all of the provisionally-licensed teachers were in schools in the same school division, each school had its own network settings and technology staff. This often meant that the first attempt at observation was more of a dry run to understand the technology set up. On a few occasions, audio was blocked by the school's firewall or the connection would drop after a short period of time. These problems were usually overcome by either having the teacher log in to their school network with their division login credentials (using study computers) or by having the school's technology coordinator work with the teacher to set up the computer directly on the network. The difficulties experienced in connecting the Bluetooth headset to the computer were usually due to user inexperience with the type of laptop used in the study (MacBook Pros) and so a step-by-step guide was developed and distributed.

Discussion and Implications

The shortage of special education teachers has forced states and local divisions to look for alternative ways to staff classrooms. In the Commonwealth, individuals can be provisionally-licensed to teach after taking one special education course and being hired by a school division (Va. Administrative Code, 2018). For the next two to three years, they complete coursework for licensure as they are assuming the responsibilities of a fully-licensed teacher. As such, waiting until the end of their course sequence to provide coaching and feedback related to instruction, as traditional teacher candidates experience internship, is too late. This case study described a program referred to as DCOP, which distributed a teaching internship across a preparation program, beginning in the first semester by incorporating eCoaching and BIE coaching. The DCOP program provided the opportunity for candidates to receive twice the amount of feedback typically provided in a regular internship model, all during the first year of their teaching

experience. The shared results of our research questions suggest that the DCOP program is feasible for preparing provisionally-licensed special education teachers and the teacher participants positively perceived the internship experience. Their high acceptability of BIE coaching and reportedly, minor concerns with the technology are consistent with a review of studies investigating immediate feedback provided to teacher practitioners via bug-in-ear technology (Schaefer & Ottley, 2018).

One of the difficulties in providing instruction to provisionally-licensed teachers is that they straddle the categories of traditional pre-service teacher candidates and in-service teachers and, therefore, there is little research on effective preparation practices. However, recently, Brownell and Leko (2018) analyzed several studies focused on professional development for in-service teachers in a special issue of *Teacher Education and Special Education*. Each study had included coaching with specific feedback as part of the professional development package. The authors describe a cognitive apprenticeship approach—one in which the coaches

> assist teachers in developing expertise by modeling how they, as experts, engage in teaching tasks and make decisions about teaching and scaffolding teachers' performance through feedback and support. The process of modeling and scaffolding involves a gradual reduction in expert guidance as teachers gain mastery of PD content and strategies (Brownell & Leko, 2018, p. 160).

It would make sense that this might be the best approach to working with provisionally-licensed teachers in order to bring the coursework they experience weekly in preparation programs to their daily practice in the classroom. Using virtual coaching combined with a distributed internship provides the opportunity to teach knowledge and skills and then incorporate a cognitive apprenticeship approach in the teachers' classrooms.

Whereas the Virginia licensure requirements for special education have expedited teachers in the classroom, there is a trade-off. The breadth of knowledge and skills needed to be an effective special educator of students with high incidence disabilities for grades K-12 can be overwhelming. These provisionally-licensed teachers are in classrooms while still acquiring the knowledge and skills needed to meet the needs of students with disabilities. In turn, novice special educators may feel that they have not been provided with the supports necessary to address the complex needs of students with diverse disabilities. Therefore, there is a critical need for these provisionally-licensed teachers to have ample opportunities to receive performance feedback in order to attain and deliver evidence-based practices with fidelity (Leko & Brownell, 2011). The virtual observations and described bug-in–ear coaching allowed for more frequent touch points across two semesters for 11 provisionally-licensed teachers. Although this study did not evaluate if the teacher participants' use of evidence-based practices improved as a result of coaching, feedback that is immediate, positive, and corrective has been associated with the most enhanced practices (Scheeler, Ruhl, & McAffee 2004).

The described coaching model of DCOP is versatile and can be used flexibly to personalize the experience for each individual learner. The first two semesters of DCOP included virtual observations, targeted goal setting, bug-in-ear coaching, debriefing, email feedback, and video reflection. Be it virtual, face-to-face, or via email, the more frequently the practice-feedback cycle occurs, the greater the teachers' fidelity of implementation (Kretlow & Bartholomew, 2010). For teacher preparation programs, providing an ongoing and fluid professional development for in-service special education teacher candidates who are already in classrooms during the day is critical. Using technology can help to change and improve teachers' targeted practices when given ongoing quality performance feedback while teaching.

To further illustrate the versatility of the described model, coaches can be principals, school leaders, or seasoned teachers. There may also be an existing instructional coaching model in a school district that may benefit from using technology to expand their capacity for coaching. We hope that the described DCOP project will allow school district leaders and/or preparation program leaders to consider ways to further enhance and support provisionally-licensed teachers in their practice. Specifically, implications for teacher educators may include a critical look at how they are considering performance-based feedback in their own programs. Typical teacher preparation programs have university supervisors or clinical faculty members who spend a great deal of time traveling between schools. Using technology for virtual observations and bug-in-ear coaching minimizes or eliminates the need for travel, multiplies the coaching effect, and provides the critical support that teachers need to enhance their practice. Finally, researchers might also consider how to extend research on practices such as reflection, video analysis, and eCoaching so that these practices are both feasible and sustainable in large and small preparation programs.

Table 5

Internship Survey and Results

Question	Response	Results (Sem 1; n=11)	Results (Sem 2; n=11)
Maintained effective communication with me	1 (Strongly Disagree) to 5 (Strongly Agree)	11 Strongly Agree	8 Strongly Agree; 3 Agree
Was available electronically or in person, and kept appointments/rescheduled appropriately	1 (Strongly Disagree) to 5 (Strongly Agree)	11 Strongly Agree	10 Strongly Agree; 1 Agree
Demonstrated knowledge of the internship process	1 (Strongly Disagree) to 5 (Strongly Agree)	11 Strongly Agree	7 Strongly Agree; 3 Agree; 1 no response

Question	Response	Results (Sem 1; n=11)	Results (Sem 2; n=11)
Provided me with accurate and timely feedback, and useful recommendations during conferences/written reports	1 (Strongly Disagree) to 5 (Strongly Agree)	7 Strongly Agree 3 Agree 1 no response	7 Strongly Agree; 3 Agree; 1 no response
Provided opportunities for discussion/reflection with other students in the course	1 (Strongly Disagree) to 5 (Strongly Agree)	9 Strongly Agree 1 Agree 1 Neither Agree/Disagree	7 Strongly Agree; 4 Agree
Overall rating of Instructor/Coach	1 (Very Weak) to 5 (Strong)	11 Strong	10 Strong; 1 neutral
The coaching experience was a supportive and positive learning space	1 (Strongly Disagree) to 5 (Strongly Agree)	8 Strongly Agree 1 Agree 1 Neither Agree/Disagree	7 Strongly Agree; 4 Agree
The overall rating of the internship process	1 (Very Poor) to 5 (Great)	9 Great 2 Good	8 Great; 3 Good
Comments about instructor/coach	Open ended		
Comments about the Internship Process	Open ended		
Suggestions to Improve the internship process	Open ended		
Comments about specific feedback from the instructor/coach that proved most helpful to you during the internship	Open ended		
Any additional feedback?	Open ended		

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