TYPE Original Research
PUBLISHED 09 January 2023
DOI 10.3389/feduc.2022.1042645



OPEN ACCESS

EDITED BY
Shaun Murphy,
University of Saskatchewan,
Canada

REVIEWED BY
Eliza Pinnegar,
Independent Researcher,
Orem, UT, United States
Mary Frances Rice,
University of New Mexico, United States
Cheryl J. Craig,
Texas A&M University, United States
Stavros Stavrou,
University of Saskatchewan,
Canada

*CORRESPONDENCE
Celina Dulude Lay

☑ celinalay@gmail.com

SPECIALTY SECTION

This article was submitted to Teacher Education, a section of the journal Frontiers in Education

RECEIVED 12 September 2022 ACCEPTED 05 December 2022 PUBLISHED 09 January 2023

CITATION

Bussey H and Lay CD (2023) Reflections on strategies for university supervision in special education. *Front. Educ.* 7:1042645. doi: 10.3389/feduc.2022.1042645

COPYRIGHT

© 2023 Bussey and Lay. This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY). The use, distribution or reproduction in other forums is permitted, provided the original author(s) and the copyright owner(s) are credited and that the original publication in this journal is cited, in accordance with accepted academic practice. No use, distribution or reproduction is permitted which does not comply with these terms.

Reflections on strategies for university supervision in special education

Heidi Bussey and Celina Dulude Lay*

Brigham Young University McKay School of Education, Provo, UT, United States

University supervisors for special education teachers are preparing teacher candidates to have many roles and responsibilities and to collaborate with many stakeholders, even as they begin their field experiences. In this self-study of teaching and teacher educator practice, we examined the narrative reflections of a university professor in her role as a university professor and supervisor for special education student teachers. Our narrative data revealed: individualized strategies for supporting the supervision of special education student teachers; how these tools emerged directly from background, experience, theory, and beliefs; the value of relationships in university supervision; and, reflection as a diagnostic tool for improving practice and identifying teacher educator knowledge.

KEYWORDS

university supervision, special education, reflection, self study methodology, qualitative research & analysis, teacher education, preservice and teacher education

Background

Student teachers in special education teacher preparation programs have the support of a university supervisor. The university supervisor acts as the liaison representing the university, observing the student teacher, and guiding the student teacher in reflective teaching practices such as journaling or discussion. University supervisors are positioned to take on a role of support and model reflective teaching, a key skill for teacher candidates to learn. In particular, there are unique challenges to supervising in the field of special education.

When a university supervisor steps in

In a traditional program, a capstone student teaching experience is required for graduation and licensure. Preservice teachers typically complete a series of part-time, practicum field experiences prior to their full-time student teaching. Student teaching is the first authentic opportunity the student has to actively take on the educator role. The purpose of student teaching is to connect previously learned coursework, applying it to actual students and situations (theory to application) with the support of a mentor teacher

and university supervisor. Field experiences are one of the most important components of a teacher preparation program, and the student teaching experience represents the transition from student to teacher (Cochran-Smith et al., 2015).

The quality of the teacher preparation program largely depends on the quality of their field-based experiences (O'Shea et al., 2000). Preservice field experiences (practicum or student teaching) should (1) link preservice teachers to authentic settings; (2) demonstrate the concept of learning through experience; (3) require emotional involvement; (4) imitate professional growth; (5) provide one-to-one encounters; and (6) allow goal-setting opportunities (Henry, 1989). Several factors indicate a successful student teaching experience, including the framework of the university teacher preparation program, the knowledge and skills of the cooperating/mentor teacher and the university supervisor, the school placement, and prior experience the preservice teacher has (Renzaglia et al., 1997).

A typical student teaching experience involves three active and willing participants, the preservice teacher, the mentor teacher, and the university supervisor. Mentor teachers are vital to the success of a student teacher. They are chosen by the district, or volunteer to participate because they have a tenure track of attitudes, beliefs, and practices that both align with their district, as well as the university teacher preparation program (Davis and Fantozzi, 2016).

The university supervisor represents the teacher education program and learned theory. University supervisors typically have a past background of successful teaching and their role is vital to the growth and success of the student teacher (Izadinia, 2016). University supervisors schedule face-to-face meetings, to observe, assess, conference with, encourage, and evaluate preservice teaching candidates. Multiple formative meetings lead up to the student's summative grade. Formal observations include identified teaching behaviors such as, effective instruction, lesson planning, classroom management, and professionalism. While the student teacher candidate spends the majority of their experience with their mentor teacher, their final grade is assigned by their university supervisor (Ronfeldt and Reininger, 2012).

Prior to student teaching, teacher candidates have more frequent interactions with their university professors through their coursework–establishing prior trust with their university supervisor. However, during the student teaching experience, the university supervisor's role shifts and while they may still have a relationship with that student, they no longer see them regularly. Similarly, university relationships which have been fostered through partnerships with local school districts are important to strengthen and maintain to continue their willingness and trust to have teacher candidates placed within their district. Thus, university supervisors are often tasked with 'double mentoring' (Cohen et al., 2013).

Reflective teaching

Strengthening education is dependent on relationships. The quality of education depends on the quality of teachers; teacher

education programs, what students are taught, and how they are prepared are important aspects for quality. The complexity of teaching requires teacher educators, educators, and teacher candidates to continually question their own practices for reflective teaching in order to improve and increase performance (Mathew et al., 2017).

Reflective teaching is an important practice where educators learn from their own experiences. Indeed, inherent in reflection is this ability to bring together theory and practice. Yet teacher candidates need to be taught how to question their practices and how to open up to different possibilities in their teaching experiences as reflection does not come naturally (Smith, 2011). Reflection is a skill that needs to be acquired in the midst of professional practice.

Dewey (1997) said, "Reflection is an active, persistent, and careful consideration of any belief or supposed form of knowledge in light of the grounds supporting it and future conclusions to which it tends" (p. 6). Yost et al. (2000) asserted that Dewey's three characteristics of openmindedness, responsibility, and wholeheartedness lead to more reflective educators, describing open-mindedness as a "a desire to listen to more than one side of an issue, to give attention to an alliterative view, and to recognize that even the firmest beliefs may be questioned" (p. 39). They explained responsibility as "a desire to actively search for truth and apply information gained to problem situations" and indicated that with wholeheartedness one can "overcome fears and uncertainties to make meaningful change and can critically evaluate all stakeholders" (Yost et al., 2000, p. 40).

Traditional teacher education programs have the responsibility to teach preservice teachers the foundation of critical reflection during their coursework; whereas it is the responsibility of the mentor teacher and the university supervisor to grow critical reflection through application and evaluation during student teaching experiences. Preservice educators lacking guidance in practical experiences seem unable to integrate and apply critical reflection in ways that enhance their teaching. Stones (1994) noted, "Teaching depends on the interaction between human beings, not one-way traffic. Skilled teaching involves structuring learners' environments so that change will occur, thus enabling learners to do what they could not do before teaching" (p. 311).

Critical reflection involves both thinking and problemsolving (Yost et al., 2000). A reflective educator is one who makes decisions based on conscious awareness and careful consideration of the assumptions with which the decisions are based, taking into account the consequences (Brookfield, 2017). In this sense, reflection as a tool for teacher preparation has long been considered an important component in many programs, providing opportunities for teacher candidates to learn in field-based experiences, and requires interaction, experience, and practice (Tatto, 1998; Brandt, 2008; Rodgers and LaBoskey, 2016).

Challenges specific to preparing special education teachers

Special education teachers have a unique and increasingly complex role. The majority of special education teachers are expected to collaborate with general education teachers, service providers, paraeducators, families, etc., to support students from diverse backgrounds across a multi-level tiered system of supports (MTSS), while still providing specialized instruction and making data-based decisions based on individual goals (Billingsley and Bettini, 2019). Special education teachers must not only be familiar with the foundational skills required in special education, but also general education content area standards, new technologies, assessment tools, and different least restrictive environment (LRE) options. The ambiguity surrounding the roles and responsibilities of special education teachers are a contributing factor to teacher shortages and questions surrounding the quality of special education teachers and programs (Shepherd et al., 2016).

Teacher preparation program quality depends on fieldbased experiences. While most student teaching placements are at schools which partner with the university, these classroom settings may not always represent best practice, but they are a convenience. Best practice suggests student teaching experiences mentored by qualified special educators and supervised by university personnel (O'Shea et al., 2000). However, severe teacher shortages in special education have resulted in schools hiring teachers who lack appropriate certification. This often creates a shortage of skilled mentor teachers (Renzaglia et al., 1997). The university supervisor most often holds the lowest university rank and are often chosen based on availability rather than expertise. Supervisors in teacher education generally hold large caseloads which limit their opportunities to observe and interact with student teachers and their mentor teacher. This is especially true in special education where there might only be one special education classroom per school and the university supervisor must travel extensively (Baumgart and Ferguson, 1991).

Paquette and Rieg (2016) researched stressors and coping strategies related to special education preservice teachers. They found university supervisors were most helpful by giving student teachers reassurance, making themselves available, maintaining a timeline, and giving students permission to engage in activities to reduce their stress. Respondents identified supervisors who showed 'care' by 'checking in' and staying in touch were helpful, in addition to the frequent visits and providing positive constructive feedback. Respondents liked having organized supervisors who initiated updates on any program or schedule changes and provided timely feedback. Finally, the respondents identified a helpful way in reducing stress was when supervisors would encourage students to 'do something fun'-indicating a 'sense of permission' (Paquette and Rieg, 2016).

Methodology

In this study, we examined the narrative reflections of a university professor in her role as a university professor and supervisor for special education student teachers. We wondered what particular diagnostics or tools for supporting teacher candidates would be uncovered. We also wondered if other strategies within the role of university supervisor in the field of special education would emerge.

For this purpose, self-study of teaching and teacher educator practice (S-STTEP) methodology was chosen since it has been described by Hamilton and Pinnegar (1998) as an appropriate research approach for examining and improving "professional practice settings." The research project enlisted all five characteristics of S-STTEP methodology (LaBoskey, 2004). First, as an intimate reflection of personal past experience, we decided on qualitative methods, in particular narrative data collection and analysis. Second, we worked in an interactive process, using critical friendship and dialog (Loughran and Brubaker, 2015), which helped us reflect on the narrative accounts, but also pushed the reflective process "in ways that elicit both problematic and supportive feedback" (Pinnegar and Hamilton, 2009, p. 112). Third and fourth, the study was self-initiated and self-focused, intended as a way to capture understandings that may emerge from reflecting on experiences as a university supervisor. Fifth, this research study was improvement aimed because we hoped to provide detailed diagnostics of how university supervisors may effectively support special education teacher candidates and their cooperating teachers during student teaching/field experiences.

Setting the context for the study

The first researcher in this study was a former university professor in special education at a large mountain west university. Although she never envisioned herself in the field of academia, she sort of fell into it. Prior to becoming a university professor, Heidi had a 15 year career in special education, starting as a paraprofessional, general education teacher, special education teacher, behavior analysis/clinical supervisor, and finally district coordinator/coach. Upon moving to the mountain west, she decided to complete her PhD, and became a university professor and clinical supervisor. Her unique perspective in teaching (having an endorsement and teaching experience, in general education, special education, and teaching English to speakers of other languages), provided her students with a professor with a well-rounded experience. Her philosophy/research agenda focuses on students' post-secondary outcomes, as well as concern for special education teacher retention (Billingsley, 2004).

During her time at the university, Heidi's job consisted of teaching special education courses, supervising the special education practicum and supervising students during their student teaching. Due to her university responsibilities, she was

able to make connections with the students early on in their coursework and develop meaningful relationships, which built a sense of safety and trust among her students during their student teaching experience.

The second researcher is a former secondary English teacher who first taught in a private residential behavioral treatment school and then middle school. Celina has researched and taught in teacher education in an adjunct capacity at the same mountain west university for 10 years. Most recently, Heidi and Celina were doctoral students together, shifting back into student-mode to complete assignments, research, and internships. While also navigating family life in the midst of the COVID pandemic, they completed their dissertations and graduated with their doctorates.

We noted that with Heidi coming more recently out of teaching in special education and with Celina's experiences teaching in a private and public-school setting, some of the ways we talked about education were different and we were not always sure on some terminologies. For example, what Celina referred to as the supervision of student teachers, Heidi referred to as coaching. As a former district coordinator and coach, Heidi had been in settings where coaching roles was a preferred approach for teacher professional development in special education. In this way, we believed having both our voices heard in the analysis and findings of our study helped us articulate our own thinking more clearly, define more carefully what we meant, and describe in better detail the strategies and responsibilities of university supervision in a special education context that may emerge.

Data collection

Initial data collection was a form of constructing past events called annals and chronicles (Clandinin and Connelly, 2000), in which Heidi began remembering her interactions during supervision and shaping events roughly. Heidi briefly listed potential stories that she might tell, just capturing the main ideas from memory. From this initial list of kernel stories, Heidi then chose the stories she felt would illustrate her understanding gained as a university professor as well as her experience from a 15-year varied professional career in special education. She chose not just success or hero stories but also supervision experiences that had been challenging or discouraging. These stories she wrote on her own, reflecting on the experience, and composing them into narrative accounts. With these composed narratives as data, we then continued to meet and engage in analysis together.

Data analysis

The two researchers, Heidi and Celina, met regularly for 60 to 90 min, twice a month from January to March, 2022, to discuss Heidi's experiences supervising special education student teachers and reflect on what was learned from her narrative accounts. These meetings were dated and transcribed in the

moment. In other words, as we discussed Heidi's stories and reflected, Celina simultaneously kept a written account of our conversations. Heidi's written narratives, records from our discussions, and any additional email communications were kept in a shared Google folder, private to the two of us. It is important to note since our study was self-focused and did not involve student or school data, we were careful to mask identity in the stories by removing identifiers and changing names and locations of any individuals who may have been named either in Heidi's narratives or in our follow-up discussions.

At meetings, Heidi would begin by reading a narrative account. Using this written account as an anchor, she would continue to reflect on the events and learning gained from that experience. According to Clandinin and Connelly (2000), multiple field texts in narrative research can "fill in the richness, nuance, and complexity of the landscape, returning the reflecting researcher to a richer, more complex, and puzzling landscape than memory alone is likely to construct" (p. 83). In this way, Heidi's initial narrative composed in private was expanded, explored, and analyzed as we talked about the experience in face-to-face conversation.

While Heidi recounted and reflected on her experiences, the other researcher, Celina, acted in a role of critical friendship, as a way to further extend, question, and consider perspectives, roles, and understandings that emerged in the initial reflection process. This discussion phase of analysis, using dialog as a process of knowing, also served to help question and strengthen trustworthiness of any proposed findings from the narrative accounts (Mishler, 1990; Pinnegar and Hamilton, 2009).

A typical meeting might have us reading notes from the last meeting, Heidi would then proceed to read aloud the story she had written in advance. This would usually bring to mind more details and the conversation would begin in earnest. Celina would listen, adding her own side of the conversation. During each discussion we would often refer to stories and notes from previous meetings, thus linking previous connections, noticing potential themes or ideas to examine further. In qualitative data analysis, this process of revisiting and memoing field notes helped us track a record of our research process and remember our thinking (Richards, 2005).

In our meetings, Celina would ask questions about what had worked in a particular moment of university supervision and sometimes we compared our experiences. Other findings emerged and were explored with dialog, which Pinnegar and Hamilton (2009) described as "in the spaces between thought, talk, and participants" (p. 90). We determined that saturation was reached when we began noticing that no new strategies or coaching tools came from reflections or discussions.

Findings

Our findings are summarized in four main themes. These themes emerged in our dialog and began to be articulated through

our discussion and revealed as we revisited and reexamined Heidi's stories. The first is a theme we began the study as our research question—individualized strategies for supporting the supervision of special education student teachers. The second theme is supervision strategies emerged directly from background, experience, theory, and beliefs. The third theme is the value of relationships in university supervision. Finally, the fourth theme is reflection as a tool for improving practice and identifying teacher educator knowledge.

Individualized strategies for special education student teachers

As a university supervisor in special education, Heidi followed the process and expectations required by the university for state licensure. Heidi began by describing what was typical in the program. This included four formative observations, post-conferences, checklists, goals, self-reflections, watching a video of their teaching, helping teacher candidates become familiar with the self-reflection checklist, and observation protocol. She said,

I have them come up with three goals ... I may guide but ultimately, I want them to choose. I have them say how they think they attended to those goals. Self-reflection of their own teaching. Third observation ... We watch the video and fill out the same checklist. No one loves to watch themselves teaching and then we come together and compare the checklist sheets. They go first. Then me. By then they are familiar with the checklist and we discuss discrepancies. They grade harsher than I would grade them. What I have found is that this debriefing is a lot more encouraging for them because sure, you did this, but look at what else you did well. Typically, the fourth observation is an easy, less stressful experience. Noticing how much they've grown, summative. But the formula doesn't work for all students. (2/11/2022)

For most students, this process of submitting lesson plans, scheduling times to be observed during teaching, and then meeting post-teaching to discuss the learning is straightforward and feels supportive enough. In fact, most student teachers do not notice their university supervisor much at this point, since most of their time is spent in a school and with a mentor teacher during this field experience. Most students may only require a few additional supports. For example, Heidi mentioned if there are concerns, it is always better to add another observation. Also, she said she likes to begin with a three-way meeting with the university supervisor, mentor teacher and student teacher to go over assignments and expectations. In ongoing ways, she may offer formative feedback to lesson plans along the way, or may check in with

a phone call rather than an email to really sense how a teacher candidate is doing.

To help Celina understand how "the formula does not work for all students," that some teacher candidates do not always thrive in the normal supervision pattern, Heidi told a story about a student who was not sure if she wanted to be a teacher. Perhaps unexpectedly, Heidi's response to this student was, "Great, that's fine. My job is to help you graduate." Heidi said, "She wasn't a great student and not everyone liked her but I think she appreciated my honesty. I was glad she was comfortable enough to tell me. I would rather know that and talk real."

In an unconventional way, Heidi realized by taking the pressure off the teacher candidate, she was going to be able to build a better relationship. Heidi noticed, "...it helped her be a better teacher. She was almost teaching too much to the lesson but not attending to the students." Once she relaxed, she was better able to attend to students.

Also, because this student now felt she could be honest and upfront, Heidi learned the student had not had many personal experiences with children with disabilities. Heidi recounted a story of this student's first observation,

First time was a five minute lesson. After that, I asked her goals. She wanted to work on behavior. I could look at that and see that she was having trouble because she couldn't attend to the students. I challenged her to give out carnival tickets and pair it with behavior specific praise. It helped her to notice students and it helped the students because they were involved in a system. So that helped her with management and behavior but also helped her form personal connections with students. And realize it wasn't just a job but also an experience with students. (2/11/2022)

By suggesting and helping the student teacher set up a ticket system, it not only helped the teacher with behavior management (something she had explicitly set as a goal) it helped her gain connections to students, which was something Heidi had learned she could use some experience with. It was a simple suggestion and "it worked because it was appropriate for secondary students and it helped her get to know the students and pay attention to what they were doing well, which she was not good at before." Within a university supervision program, there were ways Heidi had learned to pay attention to an uncommon situation and seek an individualized solution. Like a special educator who makes individualized learning goals for students with special needs, a university supervisor needs to be able to provide individualized support for teacher candidates. Indeed, Heidi's solution was the same kind of supervision diagnostic tool frequently provided by university supervisorslesson plan support she may have offered any of her teacher candidates-but it was tailored to simultaneously address an area of concern Heidi had identified as a stumbling block to this teacher candidate's growth.

Strategies guided by experience, theory, and beliefs

As Heidi reflected on the ways she has tried to support special education teacher candidates, we also remembered our own past experiences. Heidi's young adult experiences as a paraeducator sparked her interest in special education. Her post-graduate research interests and studies also emerged from these teaching experiences. In this way, practical teaching experience, foundations in theory, and deeply held beliefs merged and informed Heidi's decisions in supporting student teachers.

Early on, Heidi had positive experiences working with students with disabilities. Now as a university professor, she recognized not all students have had the same opportunities to build confidence and competence with students with disabilities. Sometimes having positive experiences makes a difference in whether students succeed in their field experiences or more importantly for Heidi, whether they burn out as teachers.

One way she tries to ameliorate this is by encouraging students to volunteer with students with disabilities or work part-time as paraeducators while they are still not so far along in the program. In one story she said, "I care about, are you comfortable with students in a classroom. If you have relationships with students first, when you teach a lesson to the students, they are flexible. But if you are so worried about teaching to the lesson, you aren't really teaching to student needs." Because special education teachers have a lot of learning in their first years' teaching, she wants them to feel confident from the beginning. Even if they have not had experience they can be willing to embrace opportunities. Heidi said, "For example, one of my students recently wasn't a strong student but I could tell she had a passion. I can work with that."

Another strategy Heidi incorporates during supervision is to help student teachers see their influence beyond the classroom walls and beyond the required 10 weeks of student teaching. This particular perspective emerged as she reflected on an experience early in her career as a special educator.

One regret I have is a non-verbal Downs student and I didn't know about this school where he could have learned sign language. That's what he really needed, looking to his future, was a way to communicate. But I didn't know. [Now] I have an outlook of post-secondary outcomes. I don't want special educators who aren't looking ahead. Just getting through that year. At the college level, I always have burnout in the back of my head. I'm always giving them tips to implement curriculum or strategies or classroom management ideas—small things that come with my background that I can pass on so they don't burn out. Some professors don't have clinical or teaching experience. What they're teaching is great but being in the field is very different. You know, theory practice divide. (1/24/2022)

Heidi's concern with special educator burnout is directly related to her deep care for post-secondary outcomes and

independence for students with disabilities. She frequently reiterated this, saying, "I'd rather keep teachers in the field because it means more for student outcomes."

With a teacher candidate who had decided not to teach, Heidi supported her to finish student teaching and "because of this, she was able to consider other ideas and realize the pieces she liked She realized she liked working one on one." This teacher candidate completed the program not feeling averse to education but instead, felt like she understood herself better and thought she might prefer speech/language pathology. Heidi concluded, "Teaching is hard and the harsh reality does not often match their aspirations, what they hoped teaching would be. If they get me as an advisor, I know the systems, the options, and that there are variations in the field. The same student could have a very different ending to their program. Keeping anyone in the field of education is good."

Heidi's own convictions and work ethic were often revealed in her storytelling. Heidi's strengths as a special educator were evident in the collaborative aspects of her role as a university supervisor. In fact, modeling that collaboration is another one of Heidi's strategies. Her narratives revealed her efforts to demonstrate how a professional team works together. She modeled for teacher candidates how to collaborate when setting up meetings, communicate positively with families, educators, service providers, and paraprofessionals, and how to be prepared and on time with paperwork, lessons, and obligations. Celina remarked on how Heidi's career in special education seemed to position her to always be part of a team, in contrast to some of Celina's classroom memories of feeling public, yet alone. This led us to talk about teams in a special education context. Heidi summed it up well, "Even though special educators are always working in teams, they can feel really isolated in schools ... I've always been part of a team in different roles within the team so naturally I've grown to be reflective and able to talk about it. If you want to really do this [be a special educator], you really have to do the toilet job just as often as the para."

The importance of relationships in university supervision

Strengthening relationships is not a novel practice in the research on successful supervision. However, what we observed after careful reflection was how a single action of relationship support may have many purposes and nuances. Heidi's strategic moves in supporting teachers revealed a sophisticated understanding of the professional landscape in teacher education. As we thought back on this and other stories, she mentioned she liked to go in "noticing strengths," "building on what they know if I had them in class," "looking for good things in the lessons they prepare," and ultimately, "following up."

Heidi told a story about a mentor teacher who felt very critical of the student teacher who was placed in her classroom. Heidi described how at first the placement was going well. The student

teacher "wasn't a complainer," but soon it became clear the mentor teacher had a lot of complaints.

When all you hear is constructive criticism, it is still a little discouraging, overwhelming. She's having a hard time trying to do the classroom just like the mentor teacher does. She can't expand her teaching philosophy, copying something as opposed to trying to collaboratively figure out something. I think she appreciated me as a supervisor because we had a lot of Saturday night Zoom calls. I was able to modify some of the expectations. (2/17/2022)

When we went back and analyzed this story, Celina asked Heidi what she had done to try to support the mentor teacher and encourage a better relationship between the two in the classroom. Heidi said she used the same strategies she often used: clarifying responsibilities in a three-way meeting, emails, phone calls, listening, and offering support. When Heidi talked to the mentor teacher, she complained but when Heidi asked for clarification, it was often about something that was out of the student teacher's control. "So essentially she got COVID, which did not help. She was out for a week. But she made sure she taught virtually. For a week. When she got back it went downhill."

When one relationship could not be changed, Heidi made sure other supportive relationships happened. Even with phone calls to the mentor teacher, the mentor teacher remained frustrated and unimpressed with the student teacher's efforts. Heidi increased her support with Saturday night Zoom calls, even finding a former student who had been placed with this same mentor teacher. She said, "We connected the two students and that helped a lot." Because of Heidi's ongoing commitment to support both the mentor teacher and student teacher, she was aware that when the situation was not likely to improve, she was able to--mid-semester--make the decisive move to find a new placement for the student teacher to finish student teaching.

As we discussed Heidi's strategies for strengthening relationships, we realized this makes up much of the work of being a university supervisor. Again, Heidi expressed concern that she wants preservice teachers to have positive student teaching experiences and not have "rocky relationships with professors or mentor teachers" because it may put them at risk of never entering the field. In that balance of the mentor teacher giving up some classroom control, Heidi remembered that teacher candidates "do not feel they have a lot of say in the experience." Sometimes not only do student teachers lose sight of the end goal, thinking only in terms of semesters, "counting down the weeks and getting through the assignments," but sometimes others in the triad, such as mentor teachers, may lose sight of our commitment to relationships as well. Keeping tabs on the tensions and communications between all the stakeholders requires an ongoing awareness of multiple perspectives.

Reflection as a tool for improving practice and identifying teacher educator knowledge

One way reflection helped our own practice began when we decided that in this study it would be useful to unpack the terminology we use since we come out of different paths in education. One of Celina's roles in critical friendship was to ask about Heidi's terminology, descriptions, and decisions, wondering aloud when she thought an idea may have emerged from research more particular to Heidi's clinical experience and training.

Celina often drew connections to her own areas of experience and background, asking Heidi if that sounded familiar to her own experiences, and together we examined the underpinnings of Heidi's beliefs and practice. An example of this is when Heidi described coaching a student teacher with her lesson plan and Celina stopped the story to ask what she meant. Before a university observation, having a student teacher send a lesson plan in advance of a planned observation is standard in Heidi's program and that way, Heidi could take a look in advance and offer suggestions, encouragement, and be prepared to observe. This process is identical to what Celina was doing with her practicum students in their field experience; she just wanted to understand what coaching meant to Heidi. But then this question led to deeper conversations about collaboration in special education and how vital ongoing professional learning of this kind is for the longterm outcomes of special education students.

As we named and described Heidi's strategies during university supervision, our final finding is about how our reflective dialog served to engage both researchers in deeper analysis and better identify our teacher educator knowledge. The following examples of Celina's sentence starters show how the careful listening of a critical friend could invite more thought and connection to practice, belief, and theory.

"I think it is interesting that as we talk about this ..." (1/24/2022).

"This reminds me of my own experience observing practicum students ..." (1/24/2022).

"I notice we keep saying we need to be careful with assumptions." (2/11/2022).

"You were able to get that student [teacher] to trust you and open up. How?" (2/11/2022).

Reflection as an integral part of teacher education programs supports teacher candidates and inservice teacher thinking. We noticed how reflection on strategies helped Heidi articulate her own stance as a teacher educator and helped Celina as she began supervising practicum students for the first time and learning from Heidi's experience. After one of Heidi's stories about accepting a student teacher "where she is" in her learning and looking at her strengths, Celina was able to talk about one of her own supervising concerns. She confided, "I still cannot get a read on that one student. Her written reflections are so shallow." After Heidi's story, and at the next meeting, Celina began by telling Heidi that she remembered their conversation and that she had been able to help this student

have some success in her field experience by looking at her strengths and laughing a little at herself that "not everyone writes reflection journals like an English teacher."

With reflective practice, it is important not just to examine what we do in the face of a typical problem or ask how well a lesson went, but also to ask, What do you know now that you did not then? This is a favorite guiding question teacher educators use to help novices begin to mark or recognize their growth. It was interesting to notice that we intuitively used these practices on ourselves, gently shifting our stories from past experiences to present, to the story, and from one person to the other. In one story Heidi counseled a student teacher at the beginning to write regularly in her reflection journal in order to "...to see where you have grown from practicum, and who makes a good student teacher, it comes down to confidence." She says that when she asks teachers this question of confidence at the end, as a form of self-reflection, they can look back and see their progress, feeling good about not necessarily being "perfectly competent" but about growing in confidence. In similar fashion, this reflection study has become a documentation of teacher educator confidence.

Conclusion and implications

In this process, we articulated diagnostic strategies during university supervision of student teaching. Interestingly, the diagnostic tools we did notice were explained both in the more successful supervision stories and were perhaps even more evident in stories of more challenging situations. Like Rodgers and LaBoskey (2016) suggested about reflective practice, the goal was not to produce a list of practices as a matter of prescription, but as a way to transform, understand, and manage our practice, and become more attentive of our lives as professional teacher educators.

We also considered how reflection informs our practice as teacher educators and strengthened our personal understanding and voice, which is a crucial task of teacher educators (Bullough and Pinnegar, 2004). During our conversations, we found ourselves not just examining what Heidi's stories revealed about ways to mentor and support both teacher candidates and cooperating teachers; we found ourselves interrogating what we have learned as teacher educators, and reflecting on when we think we may have learned it--from our experiences as in-service teachers or perhaps as we have thoughtfully critiqued our actions in more recent roles as teacher educators, we find that we understand our past roles and responsibilities differently than we did when we first lived them. Further study to examine the

coaching and support relationships between university supervisors, mentor teachers, and teacher candidates, especially related to teacher retention, are needed. This study also left us wondering about the stories and perspectives of mentor teachers, particularly how reflection might help them in their supportive role mentoring teacher candidates in schools.

Data availability statement

The datasets presented in this article are not readily available because it is personal reflections and cannot be shared. Requests to access the datasets should be directed to CL celinalay@gmail.com.

Ethics statement

Ethical review and approval was not required for the study on human participants in accordance with the local legislation and institutional requirements. The patients/participants provided their written informed consent to participate in this study.

Author contributions

All authors listed have made a substantial, direct, and intellectual contribution to the work and approved it for publication.

Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Publisher's note

All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers. Any product that may be evaluated in this article, or claim that may be made by its manufacturer, is not guaranteed or endorsed by the publisher.

References

Baumgart, D., and Ferguson, D. L. (1991). "Personnel preparation: directions for the next decade" in *Critical Issues in the Lives of People With Severe Disabilities*. eds. L. H. Meyer, C. A. Peck and L. Brown, vol. *19* (Baltimore, MD: Paul H. Brooks), 313–352.

Billingsley, B. S. (2004). Special education teacher retention and attrition: a critical analysis of the research literature. *J. Spec. Educ.* 38, 39–55. doi: 10.1177/00224669040380010401

Billingsley, B., and Bettini, E. (2019). Special education teacher attrition and retention: a review of the literature. *Rev. Educ. Res.* 89, 697–744. doi: 10.3102/0034654319862495

Brandt, C. (2008). Integrating feedback and reflection in teacher preparation. $\it ELT$ J. 62, 37–46. doi: 10.1093/elt/ccm076

Brookfield, S. D. (2017). *Becoming a Critically Reflective Teacher*. New York: John Wiley & Sons.

Bullough, R. V., and Pinnegar, S. E. (2004). "Thinking about the thinking about self-study: an analysis of eight chapters" in *International handbook of self-study of teaching and teacher education practices* (Springer), 313–342.

Clandinin, D. J., and Connelly, F. M. (2000). Narrative inquiry: Experience and story in qualitative research. San Francisco, CA: Jossey-Bass.

Cochran-Smith, M., Villegas, A. M., Abrams, L., Chavez-Moreno, L., Mills, T., and Stern, R. (2015). Critiquing teacher preparation research: an overview of the field, part II. *J. Teach. Educ.* 66, 109–121. doi: 10.1177/0022487114558268

Cohen, E., Hoz, R., and Kaplan, H. (2013). The practicum in preservice teacher education: a review of empirical studies. *Teach. Educ.* 24, 345–380. doi: 10.1080/10476210.2012.711815

Davis, J. S., and Fantozzi, V. B. (2016). What do student teachers want in mentor teachers?: desired, expected, possible, and emerging roles. *Mentor. Tutoring Partnersh. Learn.* 24, 250–266. doi: 10.1080/13611267.2016.1222814

Dewey, J. (1997). *How We Think* Courier Corporation (Original work published 1910). New York: D. C. Heath and Company.

Hamilton, M. L., and Pinnegar, S. (1998). "Conclusion: The value and the promise of self-study," in *Reconceptualizing teaching practice: Developing competence through self-study*, ed. M. L. Hamilton, Routledge, 235–246. doi: 10.4324/9780203984734

Henry, M. (1989). "Change in teacher education: focus on field experiences" in *Reforming Teacher Education: Issues and New Directions*. ed. J. Braun (New York, NY: Garland Press), 69–95.

Izadinia, M. (2016). Student teachers' and mentor teachers' perceptions and expectations of a mentoring relationship: do they match or clash? *Prof. Dev. Educ.* 42, 387–402. doi: 10.1080/19415257.2014.994136

LaBoskey, V. K. (2004). "The methodology of self-study and its theoretical underpinnings," in International handbook of self-study of teaching and teacher education practices. eds. J. J. Loughran, M. L. Hamilton, V. K. LaBoskey and T. Russell, vol. 12 (Springer International Handbooks of Education). doi: 10.1007/978-1-4020-6545-3_21

Loughran, J., and Brubaker, N. (2015). Working with a critical friend: a self-study of executive coaching. *Stud. Teach. Educ.* 11, 255–271. doi: 10.1080/17425964. 2015.1078786

Mathew, P., Mathew, P., and Peechattu, P. J. (2017). Reflective practices: a means to teacher development. *Asia Pacific J. Contemp. Educ. Commun. Technol.* 3, 126–131.

Mishler, E. G. (1990). Validation in inquiry-guided research: the role of exemplars in narrative studies. *Harv. Educ. Rev.* 60, 415-443. doi: 10.17763/haer.60.4. n4405243p6635752

O'Shea, D. J., Hammitte, D., Mainzer, R., and Crutchfield, M. D. (2000). From teacher preparation to continuing professional development. *Teach. Educ. Spec. Educ.* 23, 71–77. doi: 10.1177/088840640002300202

Paquette, K. R., and Rieg, S. A. (2016). Stressors and coping strategies through the lens of early childhood/special education pre-service teachers. *Teach. Teach. Educ.* 57, 51–58. doi: 10.1016/j.tate.2016.03.009

Pinnegar, S., and Hamilton, M. L. (2009). Self-Study as a Genre of Qualitative Research Springer.

Renzaglia, A., Hutchins, M., and Lee, S. (1997). The impact of teacher education on the beliefs, attitudes, and dispositions of preservice special educators. *Teach. Educ. Spec. Educ.* 20, 360–377. doi: 10.1177/088840649702000406

Richards, L. (2005). Handling Qualitative Data: A Practical Guide. Thousand Oaks, CA: Sage.

Rodgers, C., and LaBoskey, V. K. (2016). "Reflective practice" in *International Handbook of Teacher Education*. eds. J. Loughran and M. Hamilton (Springer), 71–104.

Ronfeldt, M., and Reininger, M. (2012). More or better student teaching? *Teach. Teach. Educ.* 28, 1091–1106. doi: 10.1016/j.tate.2012.06.003

Shepherd, K. G., Fowler, S., McCormick, J., Wilson, C. L., and Morgan, D. (2016). The search for role clarity: challenges and implications for special education teacher preparation. *Teach. Educ. Spec. Educ.* 39, 83–97. doi: 10.1177/0888406416637904

Smith, E. (2011). Teaching critical reflection. *Teach. High. Educ.* 16, 211–223. doi: 10.1080/13562517.2010.515022

Stones, E. (1994). Reform in teacher education: the power and the pedagogy. *J. Teach. Educ.* 45, 310–318. doi: 10.1177/0022487194045004012

Tatto, M. T. (1998). The influence of teacher education on teachers' beliefs about purposes of education, roles, and practice. *J. Teach. Educ.* 49, 66–77. doi: 10.1177/0022487198049001008

Yost, D. S., Sentner, S. M., and Forlenza-Bailey, A. (2000). An examination of the construct of critical reflection: implications for teacher education programming in the 21st century. *J. Teach. Educ.* 51, 39–49. doi: 10.1177/002248710005100105