

Secondary preservice teachers' critical reflecting practices: examining perceptions of confidence using a two-part reflection

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Abstract

Purpose – The purpose of this single case study is to examine secondary-certificate-seeking preservice teachers' (PST) perceptions of their teaching practice.

Design/methodology/approach – This single case study used student responses to a two-part reflection assignment to examine what it revealed about PST self-efficacy.

Findings – The findings revealed: (1) PSTs were generally more confident when reflecting in a second reflection assignment, (2) there were points of tension between confidence and unease, (3) there were instances of PSTs with mixed confidence and (4) some PSTs crafted plans for their future teaching. The authors further discuss these findings by exploring how PSTs reflected on their teaching experiences, and the authors reflected on the role of teacher educators in modeling this reflective practice for PSTs.

Originality/value – This study has important implications for teacher preparation programs and teacher educators, particularly those who work with PSTs in clinical experiences.

Keywords Preservice teachers, Reflection, Confidence

Paper type Research paper

Consistent with Freire's (1970) belief that education should serve individuals in their process of *becoming* as human beings, teacher education programs should serve to support and encourage individuals in their process of *becoming* as educators (Wetzel, Hoffman, & Maloch, 2017). Even with the increased accountability standards, expectations, observation requirements and use of performance-based assessments saturating teacher preparation programs in the USA (Jenlink, 2017; McConnell, Teske, Attwood, & Barron, 2021; Zeichner, 2010), scholars and educators maintain the importance of integrating critical reflection practices throughout this process of *becoming* for preservice teachers (PSTs; Costa & Garmston, 2016; Gorski & Dalton, 2020; Wetzel *et al.*, 2017). Reflection promotes self-regulating and self-modifying behaviors and pushes individuals toward overcoming difficult tasks (Costa & Garmston, 2016; Fook, 2007; Gao, 2013). Further, opportunities for



self-reflection create possibilities for PSTs to examine the social/cultural realities of the classroom, to consider and reshape their philosophy of teaching, to unearth their own prejudices and to stimulate an axiological bend toward educational justice (Costa & Garmston, 2016; Dinkelman, 1999; Gorski & Dalton, 2020). Although self-reflection is inward-focused, it is a habit practiced and developed interpersonally within meaningful relationships guided by intentional questions and a quest toward purposeful ends (Costa & Garmston, 2016; Wetzel *et al.*, 2017). Reflection encourages PSTs' growth both independently and as they collaborate with their peers and mentors.

Two of the nine essentials described by the National Association for the Professional Development Schools (NAPDS) communicate complementary elements of the teacher preparation process by highlighting the necessary partnership between action and reflection, as a PDS should embrace the preparation of educators through clinical practice (Essential 2), and the clinical practice should be undergirded by a PDS commitment to reflective practice, responsive innovation and generative knowledge (Essential 4). As teachers of record for three undergraduate secondary teacher education junior-level practicum courses focused on the subject areas of social studies, English and mathematics/science, the authors of this paper sought to create deeper reflection opportunities during PSTs' first semester-long clinical experience in their certification area. We were curious about the ways in which reflection intersected with the beliefs and actions of secondary-certificate-seeking PSTs. As such, our study outlines the importance and benefits of reflective practices within teacher education programs, discusses the ways in which the integration of reflection practices interacts with PSTs' classroom teaching strategies, and details how reflection contributes to PSTs' perceptions of their teaching.

Our experiences with teaching PSTs and our desire to foster deep reflection led to the central research question: What does the use of a two-part video reflection assignment reveal in PSTs' perceptions of their teaching practices?

Literature review

To better examine this problem in its context, the following literature review contains an overview of clinical preparation, the impact and context of video as a reflective tool, and the research on PST confidence.

Clinical preparation

Clinical teaching practicums allow for deeper experiences and greater self-efficacy, particularly when students are placed in supportive environments with experienced mentor teachers (Beck & Kosnik, 2002; Goldhaber, Krieg, & Theobald, 2017; Ishler & Kay, 1981; Tang, 2003). Intentional placements are crucial because the experiences gained during student teaching shape PST perceptions and identities (Calderhead, 1991; Harlin, Edwards, & Briers, 2002; Heath, 2017) and affect PSTs' priorities (such as culture and demographics) when seeking out future employment (Oh, Ankers, Llamas, & Tomyoy, 2005). These clinical placement experiences allow for PSTs to try new teaching strategies and tools and make mistakes while supported by their university supervisor and mentor teacher (Tang, 2003) as PSTs grow and develop their teaching craft. To help PSTs process and intentionally unpack the clinical experiences, many teacher educators turn to reflection assignments (Rodgers, 2002). These assignments form a key component of clinical experiences, with the goal of intentional reflection to allow for growth and a move toward theory-informed practice.

PST reflection and video as a reflective tool

Research on teacher reflection dates back to the early 20th century to an exploration of the relationship between experience, interaction and reflection in teaching and its benefits toward

improving teacher praxis (Dewey, 1902). Many have since advanced this trajectory in terms of researching teacher reflection, but Borton's (1970) "What? So what? Now what?" emerged as a notable learning cycle. Borton's (1970) emphasis on reflection to spur future practice carries on through much of the underpinnings of contemporary work in PST and in-service teacher reflection.

Reflection comprises an integral part of improving craft (Zeichner & Liu, 2010; Hollins, Luna, & Lopez, 2014) and envisioning an ideal future teaching self (Beauchamp & Thomas, 2010; Gomez, 1996; Reilly, 2005) but is not without its challenges. Reflection enhances teaching skill as well as self-efficacy related to teaching (Liu, 2017; Wynn & Okie, 2017), and the use of critical reflection allows for transformative learning and teaching practices (Liu, 2017). Reflection as an "essential" (Hollins *et al.*, 2014) component of teacher education has been conceptualized in several different ways globally, and the concept of reflection in teacher education is consistently evolving and developing (Zeichner & Liu, 2010). The literature supports that reflection as a deliberate and active process is often implemented cyclically and communally, but due to various constraints, the implementation in coursework is less intentional (Rodgers, 2002). This challenge can be exacerbated in assigned PST reflection due to the presence of more knowledgeable others (MKOs) in the form of the instructor and the conversations in seminars being more teacher-led than communally reflective (Gelfuso & Dennis, 2014).

Adding a video component to reflection can increase the quality of reflection for a variety of reasons. The addition of a video component reduces the issues related to both relying on memory alone and the presence of MKOs (Gelfuso & Dennis, 2017). Video can also help PSTs develop their own tools for refining practice (Wetzel *et al.*, 2017) and build reflective practices (Coffey, 2014; McFadden, Ellis, Anwar, & Roehrig, 2014). Additionally, the use of video helps PSTs to attend to their physical presence and impact on the learning environment, including gestures, postures, gaze, facial expressions, tone of voice, position within the classroom and use of materials (Xiao & Tobin, 2018).

Video reflection assignments are not without their challenges, however. Videoing can add an element of anxiety that sometimes makes PSTs feel self-conscious and focus too much on a teacher-centered version of teaching (Xiao & Tobin, 2018). PSTs can also struggle with video-based reflection assignments if the assignments are too open-ended and the PSTs lack guidance and opportunities for collaboration (Körkkö, Morales Rios, & Kyrö-Ämmälä, 2019). Some of these challenges, namely teacher-centeredness and a lack of guidance, can be mitigated through "gradual, rich, and targeted" guided reflection (Cuper, Gong, Farina, & Manning-Osborn, 2007, p. 46). These challenges are important for teacher educators or in-service administrators to consider when crafting video reflection tasks.

Preservice teacher confidence

Teacher education programs and purposeful clinical experiences play a key role in the development of PST confidence. Learning experiences largely shape PST confidence, particularly learning experiences relevant to the classrooms in which the PSTs will teach, such as their grade or content area (Axelsen, Galligan, & Woolcott, 2017). Additionally, the use of intentional lesson reflection can improve PST confidence (Axelsen *et al.*, 2017). PSTs often report that their coursework relies too heavily on theory and not enough on teaching strategies, which can negatively impact PST perceptions of their ability to solve real-time problems (Louden & Rohl, 2006).

This inability to solve real-time problems can become particularly problematic because PST confidence in the outcomes of their behavior helps to predict their actions; lack of confidence can be related to personal self-confidence or concerns surrounding a perceived futility about their work (Soodak & Podell, 1996) and self-confidence levels have a significant

effect on teaching quality (Kalaian & Freeman, 1994). Self-confidence, competence and self-efficacy are linked (Lemon & Garvis, 2016), but intentional work on and with self-confidence during teacher preparation is key because teacher beliefs affect their practices and success, and teachers are less likely to change their beliefs after the beginning of their careers (Snyder, 2017; Thomas, 2013).

Synthesis of the literature

The sum of the provided literature conveys that good PST clinical preparation often includes a prominent reflective element, and the use of video can undoubtedly make reflection more effective in terms of shaping future teaching practices. These two things are particularly true if teacher educators are cognizant of how to structure experiences and assignments to mitigate some of the challenges of reflection. One such challenge is a PST perception that coursework can be too theory-heavy and impair their abilities to make in-the-moment decisions as teachers. Another includes that the presence of an MKO in the form of the teacher educator can shut down deep PST thought and collaboration. However, the element of PST confidence and its intersection with reflection requires a more in-depth exploration in the form of empirical examinations.

Methodology

The purpose of this single case study was to examine the use of a two-part video reflection assignment and what it revealed about PSTs' perceptions of their teaching practices. This embedded single case study (Creswell & Poth, 2018) was bounded by the participants, who were secondary-certificate-seeking PSTs in their junior year and enrolled in a teaching practicum course at a private university in central Texas. Three sections of the course, each taught by one of the authors in the study, served as the embedded unit of analysis. The fourth author previously taught the course for multiple years and developed the reflection instrument. We collected data focused on the PSTs' reflections of their first and last lessons taught in a local high school as part of their requirements for the course. The following sections include a description of our teacher education program, including a course description and information about study participants, data sources and data analysis.

Program and course overview

The teacher education program is a four-year program that requires early and frequent PST clinical experiences at partner professional development schools (PDS) beginning in the first semester they enroll at the university. In preparation for a year-long internship (student teaching) during their senior year, PSTs complete three education courses in their junior year: a content-specific course that emphasizes lesson planning, a general education course that focuses on instructional models and includes multicampus instructional rounds, both taken in the fall, as well as a field experience course in the spring semester. The clinical experience in the PSTs' content certification area is the focus of the current study. On Monday of each week, the PSTs attend a seminar on the university campus. Then, the PSTs assist a classroom teacher, their clinical instructor, in a local PDS partner school district for two instructional periods Tuesday through Friday. The purpose of this course is to prepare PSTs to plan and implement effective instruction to meet the needs of diverse learners in grades 7–12 in their certification area using appropriate resources, technology and instructional strategies. To that end, PSTs in the course teach two standalone lessons in addition to a six-day unit in their certification area in a PDS classroom under the guidance of the classroom teacher and with support from their university course instructor and the PDS site coordinator. This course is

typically the first time the PSTs teach whole-class instruction as part of their teacher preparation.

PSTs engage in several assignments for this course, including creating a portfolio to gather evidence related to their practice and reflecting on their teaching in a variety of assignments. For one particular assignment, which is the primary data source for this study, the PSTs engage in a two-part video reflection assignment. In this course, PSTs also practice positive parent contact, prepare for their certification exams, and demonstrate effective teaching strategies with feedback from instructors and classmates. The expectation is that they will become familiar with secondary content-specific state standards and how to apply methods of planning, instruction and assessment to support student learning.

Participants

Twenty-four secondary PSTs participated in the current study: 13 secondary English PSTs, six secondary social studies PSTs, three secondary mathematics PSTs and two secondary science PSTs. The participants were enrolled in the Secondary Teaching Practicum course, which was divided into three sections, each taught by one of the authors. The mathematics and science PSTs were in one combined section due to low course enrollment. We refer to these PSTs by their subject area and by a random number rather than using pseudonyms throughout (e.g., Mathematics PST 1 or Science PST 2).

Data sources

In this study, we used the two-part video reflection assignment (see [Table 1](#)) as our primary data source. The video reflection instrument was developed based on the 5E lesson plan model components ([Bybee, 2015](#)) and expectations of engaging learners through effective communication.

First, the instructors tasked PSTs with creating a video recording of their first and last lessons taught in their clinical placements. The first lesson was taught in late January or early February, while the second lesson was taught in late March. The PSTs individually watched their recordings to examine their teaching and wrote a reflection responding to 10 prompts to reflect on their practice and student engagement. Each of the prompts corresponded to parts of the lesson, such as a student engagement section, lesson closure and sections related to question strategies, routines and transitions, their interactions with students, the pacing of the lesson and their general impressions of the lesson. PSTs used these same 10 prompts for both reflections, first on the video of their first lesson and second on their final lesson taught

Table 1.
Video reflection
assignment

Discuss the following in terms of observations of your own actions (except #5 which is observations of your students)	
1	Introduction (warm-up, engage) and Closure
2	Interaction with students
3	Pacing of lesson
4	Questioning strategies
5	Level of student engagement
6	Communication of instructions
7	Classroom management issues
8	Procedures, routines and transitions
9	Personal habits/tics/repetitive phrases
10	General impression of the lesson implementation
Source(s): Authors own	

in their clinical experience. Between these first and second video reflections, students acquired additional experiences by completing their other course assignments, observing their clinical instructors and teaching a unit made up of six lessons.

Data analysis

To analyze the reflections in the two-part video reflection assignment completed by each PST, we conducted a thematic analysis (Nowell, Norris, White, & Moules, 2017). We began analyzing the data by establishing a coding procedure with initial, expanded and final code categories (Creswell & Poth, 2018). We read the video reflections for the PSTs enrolled in our individual course sections and compiled lists of initial codes based on the PSTs' responses. We then met, established expanded codes and selected one PST whose two-part reflection we coded individually to ensure inter-rater reliability. After we each coded the two-part reflection using the expanded codes, we met and discussed each code to determine if any of the codes could be collapsed. We discussed and came to a 100% agreement on the collapsed codes. Table 2 shows the collapsed codes, PST examples, categories and themes.

We then coded each of our PSTs' reflections and collaboratively determined agreed-upon categories of confident, not confident and mixed confidence. Of particular note, while reviewing the codes, categories and themes, we discussed points of tension between instances when PSTs showed confidence and when they appeared to be not confident in their teaching practices. We also identified several PST statements that appeared to be contradictory. The development of our codes led to themes, which we describe in the following section.

Collapsed codes	PST example	Categories	Themes
Efficacy	"Transitions were something I wanted to work on better throughout my time in the schools, and I believe I did a much better job with this piece in this lesson. I think it went well moving from notes to a homework problem dealing with the notes we just went over. That way, students gained individual practice while also being able to check their work and gain confidence. I think pointing at the screen and using color to show the different parts of the triangle worked well for this lesson." (Mathematics PST 1)	Confident	Increased confidence Areas of mixed confidence, in which a PST was confident and not confident in the same description Points of tension between confidence and non-confidence
Unease	"They are usually a very engaged class either way, so I don't know how big of a contribution my presence is to their engagement." (Science PST 2)	Not Confident	
Room for Improvement	"I think the Think-Pair-Share was a complete failure, so I will have to think of something new for the next lesson." (Social Studies PST 3)		Crafting plans for future teaching or ways to get support
Ask for Support	"I 100% think my questions are lacking and that I need to ask my CI or professors to dig deeper into these." (Social Studies PST 5)		

Source(s): Authors own

Table 2.
Data codes, examples,
categories and themes

Findings

In exploring the use of a two-part video reflection assignment revealed in PSTs' perceptions of their teaching practices, we uncovered four themes: (1) PSTs were generally more confident when reflecting in a second video reflection assignment, (2) there were points of tension between confidence and unease, (3) there were instances of PSTs with mixed confidence and (4) some PSTs crafted plans for their future teaching. We describe each of these findings in the following sections.

Increased PST confidence

PSTs generally revealed they were more confident in their teaching when completing the second video reflection assignment. The first teaching experience for each PST represented the first time the PST led whole group instruction in a high school classroom for their particular content area. Social Studies PST 2 described it in this way,

I definitely see myself prioritizing student interaction more. The first lesson was almost entirely based on me talking to students, and progressively I expected reciprocity and critical thinking. I think that my lessons became more and more like things that I enjoyed, but I do remember that not every student is like me.

English Language Arts and Reading (ELAR) PST 7 explained,

I think over the semester and evident within the two separate videos is that I definitely became more comfortable in beginning my lessons and just getting right into the grit of the lesson with my students. I also can really see growth in terms of my language, confidence and timing in both the engagement and closure. Lastly, I would say my engagement and closure become much more interesting as I became more comfortable and gained that confidence that I spoke of previously.

We expected that PSTs' confidence would increase from their first teaching experience to their last teaching experience, as PSTs participated in several activities throughout the semester, including working closely with their clinical instructors. However, we did not anticipate such apparent growth in the levels of confidence. Mathematics PST 3, as one example, included statements in the first video reflection juxtaposing confidence and areas for needed improvement: "Overall, I think the lesson went well. As I walked around the room, it appeared as though the students grasped the material. Though, there are still many things I can improve upon in the future." However, in the second video reflection, this PST did not buttress statements with areas for improvement, rather, the statements were generally more confident,

Overall, I think the lesson went well. It felt much better than the first lesson, and I came to the same conclusion after watching the video recording. The students were engaged and participated in discussions. They also asked me questions as they have become more comfortable with me since the first lesson.

The use of the two-part video reflection supported PSTs' ability to notice that increased confidence.

Points of tension between preservice teacher confidence and unease

In some instances, when PSTs offered statements revealing their confidence, they would include a qualifier that also revealed their unease. Often after making a confident statement, they would pair it with the idea that they could still grow in the particular area in question as if to suggest they should not be so confident. Science PST 2 indicated,

I think I could've communicated instructions better after watching the video, but the students seemed to understand pretty well because it's similar to their normal everyday class routine. I need to

work on starting off the class because it still feels a little foreign to me. I think I do a better job of explaining concepts, especially one-on-one when individual students have questions.

This PST first highlighted an area for improvement, followed by a statement that even though it was an area of improvement, it did not seem to negatively impact the lesson. The PST then indicated a second area for improvement, followed by a strength. While PSTs often reflected on aspects about which they were confident, it was evident that many PSTs balanced areas of confidence and room for improvement, particularly in their first video reflection. ELAR PST 9 shared throughout her first video reflection,

Although this class is typically quiet, we got a lot of conversation from them in this lesson. I think I would have liked to do more pair share as it would have allowed quieter students to contribute more. [My] instructions were clear and thoughtful, [though I] could speak a little slower. [Overall,] I thought that the class was a success. I think I would add more pair/group work with this class since they are so quiet, and I would like more conversation and questions coming from them.

This balance of confidence and planning for growth underscores the nebulous nature of PST confidence. As novices, their successes were still listed with skills they are still learning or would like to improve.

Preservice teacher mixed confidence

While the analysis revealed increased PST confidence between the first and second video reflections, it was also clear that there were times the PSTs expressed mixed confidence in their teaching practices. In coding the data source, this was often a response that was coded as confident, immediately followed by a contradictory statement. For example, Social Studies PST 3 wrote, “I think my communication of instructions was effective. However, the students seemed confused even after I talked about what they were going to do twice. I had them both written on the board and then gave them verbal instructions.” The same PST reflected on their questioning strategies in this way,

I think my questioning strategies were good and have improved. I did have to call on some students to interact because they were more reserved. I think the questions were effective in getting answers, but I think the students thought the questions were over complicated.

We identified several instances in which PSTs would report that a particular aspect of the lesson or one of their teaching practices was “good,” “effective,” or “went well,” but in these instances of mixed confidence, these descriptors were followed by a statement that highlighted a contradiction to that same aspect of the lesson or their teaching. ELAR PST 10 wrote,

I think the engage went well—I think I was a little shaky at the very beginning and stumbled over my words a bit when first trying to introduce the lesson, but once I started the students playing the matching game, I started to feel less nervous.

This combination of acknowledging success alongside struggle reveals the PSTs' emerging understanding of the complexity of the teaching and learning process. The use of the two-part video reflection allows teacher educators to identify these areas of mixed confidence and to examine both successes and struggles as potential areas of growth in their teaching.

PST connections to their future teaching

Some PSTs made explicit connections to their future teaching with several specifically explaining how they might make decisions differently in their future classroom after graduation, while others made limited or no connections to their future teaching. Social

Studies PST 6, as one example, listed specific aspects observed in the first video reflection to work on before the next lesson,

I could have done better with my time management skills, so the next time I will try to do that better. I also will try to engage the students better during the closure and more talkative portions of the lesson.

By making a list, this PST had a guide for areas of improvement before implementing whole group instruction again.

In the second video reflection, ELAR PST 1 explained choices that might be made differently in a classroom of their own:

I tend to stay with the typical routine and schedule my clinical instructor has already instilled. When we veer too far from what they are used to, or comfortable with, they tend to pull back which is exactly the opposite of what is desired in the classroom. I think engaging in this consistent routine made students feel more comfortable with my lesson when I was solely teaching them for a week. I think for my personal class in the future, I want to make it more diversified and implement different instructional strategies so it better accommodates different learning styles and students feel comfortable and excited to have change in the classroom environment.

This reflection in the second video reflection offered a direct connection to what the PST wanted to do in their future classroom.

Discussion

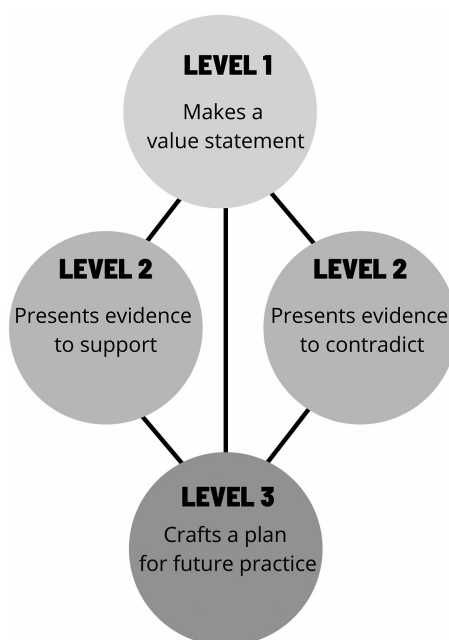
While analyzing the data, we encountered three points for discussion. First, we discuss reflection and experience as paths to increased PST confidence. Second, we highlight the different levels of PST reflection. Finally, we discuss the points of tension between confidence and unease as well as the areas of mixed confidence in the reflections.

Increased PST confidence

We recognize that the PSTs in this study completed multiple activities (e.g., lesson planning, participating in professional learning communities, conferences with their instructors and clinical instructor) dedicated to supporting their growth as a practitioner during the one-semester clinical experience course, and the two-part video reflection provides evidence of growth in the area of PST confidence. The growth that we saw in our PSTs between their first and second video reflections could be attributed to the activities in the course between their first and last lessons, but it could also be a result of their act of purposeful reflection. Increased PST confidence through reflection aligns with existing scholarship (Egelston & Hardesty, *in press*; Thomas, 2013). Additional research supports the idea that classroom experience leads to more confidence in teaching (Calderhead, 1991; Harlin *et al.*, 2002; Heath, 2017; Oh *et al.*, 2005).

Different levels of reflection

We identify three levels of reflection in the PST data (see Figure 1). The first level includes PSTs making a value statement about a particular observation in their clinical experience. This value statement might be about a positive occurrence or a negative occurrence in the classroom, such as a reflection on their ability to engage students in the lesson. In the second level of reflection, some PSTs provide evidence to support that value statement. The evidence might support their value statement, or it might sound contradictory to the value statement. The third level of reflection includes the PSTs making a connection to what they will do in the future, whether it is a teaching practice or instructional decision they will repeat to support a positive occurrence or a revision to a different approach next time.



Source(s): Authors own

Figure 1.
Levels of reflection

Level three indicates a higher level of reflection, which is the goal of PST reflective practices. The PSTs connection of current practice with plans for future teaching falls in line with the existing scholarship on teacher reflection (Dewey, 1902; Egelson & Hardesty, in press; Rodgers, 2002), particularly with Borton's (1970) "now what?" portion of the reflection cycle. This future planning might be in part because the PSTs have several other reflective assignments in the junior year and because we as instructors highlighted the importance of reflection.

In the reflection data, we found many examples in which the PST moved to level two of reflection and provided evidence for their value statement, but they did not move to level three by making a plan for repeating or adjusting the practice upon which they reflected. The lack of a plan for future practice meant that PSTs missed an actionable step toward improvement. We see this as an opportunity to improve the two-part video reflection requirements in future semesters, perhaps by adding a requirement to make an actionable plan for improvement.

More troublesome to us as the course instructors, some PSTs remained at level one of reflection. Some PSTs did move to a level two reflection but incorrectly assessed what it was they had observed. We began to identify these areas as *mixed confidence*. At times, these levels of reflection were concerning to us because it implied that the PSTs may have been misguided about their abilities and unable to critique their teaching practices, but in other instances, it revealed PSTs wrestling with the difference between their ideal teaching selves and the realities of their current teaching. This emphasis from the teacher educators on developing reflection as a part of our course aligns with Zeichner and Liu's (2010) work on the evolution of reflection as a focus in teacher education programs as well as Hollins' work (Hollins, 2015; Hollins et al., 2014) on the necessary role of reflection in PST preparation. We describe the related points of tension and mixed confidence in the following section.

Points of tension between PST confidence and mixed confidence

Our realization that some of the PSTs in this study had instances of confidence without evidence to support their confidence falls in line with existing research (Farrell, 2007; Hartman, Kennedy, & Brady, 2016). Interestingly, Farrell (2007) effectively used reflection to help PSTs begin to identify these areas of misalignment between confidence and skill, which suggests that perhaps more frequent, collaborative reflection with more specific guiding prompts used throughout the semester might have led us to see fewer instances of this problem. Tension between confidence and unease, efficacy and room to grow shows up in studies of novice teachers (Hartman *et al.*, 2016) as well as of PSTs (Egelston & Hardesty, *in press*; Farrell, 2007).

Another reason for mixed confidence might have been the pressure the PSTs felt due to the grade attached to the reflection and our roles as instructors and evaluators. In consecutive reflection sentences, PSTs offered up a critique of their teaching and followed it with a comment seemingly absolving the critique. We postulate (1) the PSTs felt pressure to meet the requirement of the assignment to critically reflect on their teaching and (2) due to the graded nature of the assignment were compelled to reassure their instructors that their teaching was proficient and effective. Further, the frequency of the examples showing mixed confidence in our PSTs caused us as instructors to critically reflect on the framing of this reflection assignment. We additionally began to consider whether these instances of mixed confidence were the result of a lack of understanding of their own ability or whether these instances resulted from PSTs' tendencies to frame success alongside growth. Dewey (1902) addressed the shortcomings of taking up an evaluative, competency-based posture within education, believing "if we confine our gaze to what the child here and now puts forth, we are confused and misled" (p. 3). As such, we believe the standards, goals and purposes teacher education programs hold should serve as ends to strive for, but not necessarily to achieve. The process and growth toward these goals, not the measured attainment of these goals, should be the most genuine concern for teacher educators in the preparation of future teachers.

Limitations

The current study is limited by the sample size—24 secondary PSTs engaged in a particular teacher preparation program at the time of the study. This practicum was completed in the spring semester of the junior year in which PSTs taught their first whole group lesson in their content area for teacher certification. We also acknowledge that the study is limited by the use of the data collection tool, which included 10 reflection prompts designed to encourage PSTs to reflect on their practice and on student engagement, administered only twice during the semester.

In the future, we could conduct additional research to include interviews or observations that may contribute to the findings. We could require additional reflective exercises, concentrating on one or more of the instructional strategies in the two-part video reflection. We could also continue the research into the internship year to explore how these reflections may have supported PST growth. It may also be important to conduct further research focused on teacher educators' modeling reflective practices to support PST growth in reflection.

Conclusion and next steps

Current scholarship supports the ideas that experience and reflection sum to create teachers with greater confidence and efficacy. Our findings revealed first, that our PSTs were generally more confident when reflecting at the end of the semester in their second video reflection assignment. Second, points of tension arose between PSTs feeling confident and

not confident within the same reflections on the same topics. Third, we found that some PSTs had mixed confidence, sometimes writing about their efficacy despite evidence to the contrary. Finally, we found that some PSTs made more connections to their future teaching practices than their peers within their reflection assignments.

Two implications for teacher educators providing clinical supervision emerged from this study examining our use of a two-part video reflection assignment in a practicum course and what that assignment revealed about PST perceptions of their teaching practice. First, teacher educators make instructional decisions that influence PSTs' growth and should reflect on these decisions in the same way we ask PSTs to reflect on their teaching practices. For example, having PSTs complete the video reflection at the end of the semester may not provide enough opportunities for observing growth throughout the semester. In completing the data analysis, we realized it may have been beneficial to give PSTs additional opportunities to video record and reflect on their teaching throughout the semester. We also could have been more explicit about what we did with their reflections. PSTs should learn to, while seemingly redundant, recursively *reflect on their reflections* more deeply and look for areas of concern in previous reflections, such as areas of mixed confidence or value statements without supporting evidence or plans for future practice. This systematic examination of previous reflections could perhaps be an additional activity that is embedded in the course as a way to support iterative reflection to drive PSTs' teaching practices. If we are not raising PSTs' consciousness to their ineffective practices, then we have not done everything we can do to support them. We also wondered if PSTs would be less likely to have areas that we identified as mixed confidence if they were not assigned a grade for this activity. An ungraded, iterative reflection practice as a part of the clinical experience could allow for deeper reflection and growth.

Second, it might be effective for teacher educators or perhaps clinical instructors to explicitly model reflection to improve practice. This could include reflection about our practices as teacher educators in class as a way to support PSTs in engaging in this practice themselves. In the process of this exploration of how PSTs reflect on their teaching experiences, we also reflected on our work as teacher educators in modeling reflective practices for PSTs. As instructors, we need to affirm PSTs' recognition of their areas of strength and intentionally, giving them positive and specific feedback to support their growth as a way of modeling how they can identify these areas of strength in themselves. We can also look for other ways to model this action so that it is more easily understood and adopted by PSTs.

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