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Using Online Video Observations and Real Time, Peer Reflective Analysis of Culturally Responsive Teaching Pedagogy in a University Teacher Preparatory Program for Preservice Teachers

Adrian E. Cortes

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Teachers

by

Adrian E. Cortes

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A Dissertation Presented to the Faculty of the
Doctor of Educational Leadership Department
in partial fulfillment for the degree of
Doctor of Education

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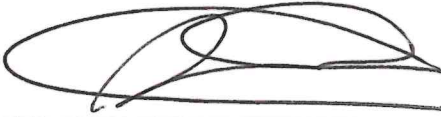


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USING ONLINE VIDEO OBSERVATIONS AND REAL TIME, PEER REFLECTIVE ANALYSIS OF CULTURALLY RESPONSIVE TEACHING PEDAGOGY IN A UNIVERSITY TEACHER PREPARATORY PROGRAM FOR PRESERVICE TEACHERS, a Doctoral research project prepared by ADRIAN E. CORTES in partial fulfillment of the requirements for the Doctor of Education degree in Educational Leadership.

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ABSTRACT

This research aimed to understand the impacts of using online video observations and real-time peer reflection to teach and address culturally responsive teaching in a Pacific Northwest university's teacher preparatory program. Six active university students enrolled in a university's new teacher preparatory program (i.e., preservice, new teacher candidates) actively participated in all areas of this study (i.e., nonrandom sampling) and provided both quantitative and qualitative data. Study participants completed self-evaluative pre- and post-surveys in a research group session. Surveys were built using the ready 4 rigor framework (Hammond & Jackson, 2015) and the four areas of culturally responsive teaching as a foundation for a psychometric response scale (i.e., Likert scale 1–5) and peer reflection prompts. In group settings, study participants watched videos of their peers and themselves engaging in classroom instruction. After video observations, they participated in real-time, peer reflective analysis of teaching performance. Using a quantitative and qualitative approach to analyze the pre- and post-survey responses and reflective discussions, data revealed participants gained a deeper understanding of their ability to deliver culturally responsive teaching pedagogy. Overall, these data points suggested a change in participant awareness of culturally responsive teaching performance levels before and after engaging in video observations and real-time, peer reflective analysis involving culturally responsive teaching pedagogy.

Keywords: culturally responsive teaching, teacher reflection, video observations, preservice teachers, theory to practice gap

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TABLE OF CONTENTS

ABSTRACT.....	i
ACKNOWLEDGEMENTS.....	ii
TABLE OF CONTENTS.....	iii
LIST OF TABLES	v
LIST OF FIGURES	vi
Chapter 1: Introduction	1
Purpose of the Study	1
The Problem of Practice.....	1
Theoretical Framework.....	7
Culturally Responsive Teaching	13
Culturally Responsive Teaching and Reflection in Higher Education	20
Teacher Reflection	26
The Power of Video Observations	37
Significance of the Study	46
Ethical Considerations	47
Definitions of Key Terms	48
Chapter 2: Data and Results.....	50
Methodology	50
Participants.....	50
Procedures and Instrumentation.....	51
Quantitative Analysis Results	54
Qualitative Analysis Results	57

Culturally Responsive Theme: Awareness	58
Culturally Responsive Theme: Learning Partnerships	59
Culturally Responsive Theme: Community of Learners	60
Conclusion	61
Chapter 3: Findings.....	62
Summary of Findings.....	62
Discussion	62
Quantitative Results Support Conceptual Framework.....	63
Qualitative Results Support Culturally Responsive Framework	65
Support for Training Interventions	66
Implications.....	67
Recommendations for Future Research	68
Conclusion	69
References.....	71
APPENDIX A RECRUITMENT LETTER.....	81
APPENDIX B INFORMED CONSENT	83
APPENDIX C QUANTITATIVE PRE- AND POST-SURVEY QUESTIONS.....	87
APPENDIX D QUALITATIVE REFLECTION QUESTIONS	89
APPENDIX E IRB APPROVAL.....	91

LIST OF TABLES

Table 1 Culturally Responsive Teaching Pre- and Post-Analysis	55
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LIST OF FIGURES

Figure 1 Change in Awareness of Culturally Responsive Teaching Performance Levels	57
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Chapter 1: Introduction

Purpose of the Study

The purpose of the study was to explore the extent to which participants' self-perceptions changed while engaging in culturally responsive classroom teaching. Teacher candidates conducted video self- and peer-observations of instructional practices in a K–12 public school classroom setting. Then, they evaluated how they delivered culturally responsive teaching pedagogy. A case study approach was used to capture qualitative and quantitative data from the observations and teaching evaluations to inform new teacher practices in a university's teacher-preparatory program.

The primary research question in this study was: How does using online video observations and real time reflective peer analysis to teach and address culturally responsive teaching pedagogy in a university teacher preparatory program for preservice teachers impact candidate outcomes? Specifically, does the theory-to-practice gap improve when new teacher candidates are provided the ability to view and provide critical feedback of culturally responsive teaching performances of themselves (and their peers), through video observations?

The Problem of Practice

Proust (1923) proclaimed, "The real voyage of discovery consists not in seeking new landscapes, but in having new eyes" (Remembrance of Things Past, Volume 5, Chapter 2). Online video observation tools have become more common in teacher education as one of many measures used to assess, evaluate, and support teacher candidates in the field (Fukkink et al., 2011). Although there has been significant support for the value of these tools in developing teaching practice, there has been little scholarly research with the explicit focus on how they can serve teacher candidates in their interactions with diverse students and communities. Hammond

and Jackson (2015) stated:

The biggest challenge I see teachers struggling with is how to operationalize culturally responsive pedagogy principles into culturally responsive teaching practices. It means understanding the basic concepts of culturally responsive pedagogy and then learning the instructional moves associated with them. (p. 16)

Thus, by focusing more directly on how candidates (a) interact and support diverse students, (b) recognize microaggressions and implicit bias, and (c) reflect on their ability to provide a safe and inclusive environment, teaching candidates could be better prepared to create inclusive environments, promote social justice, and guide students through courageous conversations about concepts such as race, gender, and identity.

Significant research has been done involving athletes, physicians, and law enforcement members' use of video observations to improve their performance. For example, García-González et al. (2013) stated video observation led to improvement in the quality of tactical knowledge of individuals engaging in video game play (i.e., content, sophistication, and structure) and their decision-making capacity, leading to a higher percentage of successful decisions made during video game play. Asan and Montague (2014) affirmed that video recording clinical events allowed researchers to verify their observations and further permitted the collection of systematic feedback by means of strategic participant review. Video data could also give researchers insight about consistency between self-assessment and observable behavior. The U.S. Department of Homeland Security's (2011) federal law enforcement training center on stress and decision making found the Scenario Training Assessment and Review (STAR) model and student-centered feedback using video supplementation to be ideal tools to

enhance training effectiveness; additionally, these tools were ideal for establishing mental models essential for effective law enforcement responses in dynamic, high-stress confrontations.

Video as an intervention tool is often called video feedback (VF). In social work and counseling, VF has been an effective means to help clients, such as parents and children, observe and reflect on their interactions and behavior. Balldin et al. (2016) argued VF use had significant positive impacts; though, they noted VF was also dependent on other factors and program components in many studies. Similarly, Liu et al. (2018) shared that using online video observations in teacher education supported teacher growth and provided a lens into rural school environments, creating opportunity for educational equity for rural communities.

Harvard's Center for Education Policy Research (2018) produced a document titled *Leveraging Video for Learning* as a summary of recommendations for video implementation. The document was developed from their Best Foot Forward Project—an examination of the effectiveness of video observations in schools conducted from 2013–2015. Although the Best Foot Forward project highlighted many benefits for teachers watching themselves teach, it did not explicitly talk about using culturally responsive teaching pedagogy in the classroom. Other researchers, such as Martell and Stevens (2017), have included video as part of their body of evidence in talking about equity in the classroom; however, no literature has focused on using video tools to teach candidates deliberately about diversity and race in the classroom.

Bandura (1977) believed when an individual observes a model and executes tasks based on the same observed model, their observation may affect their belief in their own abilities. Consequently, Bandura suggested indirect learning is helpful in learning situations with students, particularly when students and their peers have completed tasks successfully. Students engaged in indirect learning—comparing their own abilities with people's abilities similar to theirs—have

a perceived competence that they also have adequate abilities to complete similar tasks to what their peers have achieved (Bandura, 1997). An individual may interpret other people's performance—whether positive or negative—as an indication that they can or cannot execute the task successfully (Bandura, 1977; Schunk, 1998). Thus, experiential values are effective, especially if an individual does not have any prior experiences from which to make an accurate assessment of their capabilities.

As such, teacher candidates (i.e., preservice teachers) in a university teacher education program articulate their ideas about their abilities from professional literature, field experiences, and classroom observations (Lee, 2002). Field experiences have been widely considered a key part of teacher education. Extensive research over the last several decades has argued the theory-to-practice gap in teacher education (including field experiences) was at the root of inequities in the classroom particularly in terms of equity or social justice. However, according to Holtz and Gnambs (2017), field experiences were the bridge for the theory–practice gap between the professional knowledge a teacher acquired in their university teacher preparatory programs and their actions in the classroom.

More recent work has revealed how the term *theory-to-practice gap* was flawed due to the wide-ranging variances in experiences, contexts, and approaches. Kim and Kim (2017) looked at preservice teachers in early childhood education and found that theory-to-practice was intertwined and inseparable, particularly when using critical reflection in field experiences that incorporated both theory and application (i.e., evidence-based practices). Similarly, Colmenares (2018) explored the tendency for many people to rigidly attribute stuck moments in social justice education to a gap between theory and practice rather than view these moments as more fluid events driven by discursive, affective, and material forces.

However, research should focus more on the framework through which candidates learn, apply, reflect, and improve their ability to foster a positive and inclusive learning environment. People should focus less on the gap between theory and practice and more on the need for an effective means to bridge the two concepts by watching and self-reflecting on one's own practice. If structured and supported appropriately, this reflective process would allow candidates to critically analyze their presence in their classrooms and enable them to critically reflect on these types of social experiences through various lenses.

More specifically, many educators examine how they build equity, social justice, and inclusivity into their school environments through content instruction; however, it is vital to focus on how teacher candidates are taught pedagogy skills, awareness, and self-reflection about interactions in diverse settings as much as they are intentionally taught social-emotional learning. Therefore, using online video observations and real-time, peer reflective analysis to engage in culturally responsive teaching in the classroom may address how technology can foster more inclusive and learner-centric environments by promoting increased self-awareness, reflection, and change.

Hammond and Jackson (2015) described the ready 4 rigor framework in which teachers could help facilitate student learning with the aid of neuroscience to deepen understanding. This framework is highly applicable when using online video observations and real-time, peer reflection to engage in culturally responsive teaching pedagogy in classrooms. The four pillars of the ready 4 rigor framework involve (a) awareness, (b) information processing, (c) learning partnerships, and (d) community of learners and learning environment (Hammond & Jackson, 2015). Moreover, the ready 4 rigor framework can be used with qualitative and quantitative evidence to inform a teacher's practice by allowing preservice, new teacher candidates—and

arguably in-service teachers—to watch their instructional practice and evaluate how they (a) address diversity in their classrooms, (b) interact with diverse students, and (c) identify areas of growth to better support equity and inclusion for all (Hammond & Jackson, 2015). Online video observations and real-time peer reflective analysis can also be used to address successful strategies and provide exemplars to highlight how teachers create effective and inclusive environments or how they use tools (i.e., video) to work toward creating these environments. Future research and discussion may be spurred by people's use of online video tools to determine how theory and teacher education may be better bridged with practical application in classrooms regarding equity, inclusion, and social justice.

Video observation tools have been common practice in many current teacher preparation programs, as numerous research articles have supported its use. Saporito et al. (2011) looked at how video was used as part of an effort to change participants' implicit and explicit bias by showing a person diagnosed with mental illness. However, they found observing the video only decreased explicit bias and not implicit bias. This finding was arguably due to a lack of direct interaction, thus creating a gap between theory and authentic personal practice. However, Saporito et al. also noted negative implicit bias remained prevalent in several other studies even after direct interaction and experiences. Thus, with authentic practical experiences, individuals such as health professionals and teachers still needed guidance, support, and reflection to recognize and address their own implicit bias. Therefore, this current study investigated the impact of video observation tools and peer reflection as one of many measures used to assess, evaluate, and support new teacher candidates in a university teacher preparatory program and in the classroom.

Theoretical Framework

This research was rooted in two pillars: (a) how adults learn—as new teacher candidates in this research were largely adults between the ages of 20–55—and (b) embodied cognition theory—the physical actions a person performs to shape their cognitive experience based on the actions performed around them. To begin this discussion, one must examine highly relevant background research by Macrine and Fugate (2022). In their research, Macrine and Fugate identified how imitation was both a motor and a social behavior; in fact, imitation was important for numerous aspects of social development including reading facial and body gestures, theory of mind, moral development, mirror self-recognition, and joint attention. These are all important elements to mention as video observations of preservice teacher candidates among their peers and real-time reflective analysis requires engagement of the aforementioned social development aspects. Furthermore, they cited additional evidence that imitation also influenced interpersonal relationships in adulthood, including unconsciously imitating gestures and facial expressions of others (Macrine & Fugate, 2022). This finding was especially evident when individuals adapted to demands of a social situation; thus, social mirroring was one action that created rapport and a shared experience between social partners (Macrine & Fugate, 2022).

These actions are thought to be the neurobiological actions of mirror neurons that impact the understanding of other people's actions and intentions through embodied simulation (Macrine & Fugate, 2022). Macrine and Fugate (2022) stated:

Watching a teacher or another peer student demonstrate a skill and then imitating or executing it should allow for higher-quality understanding than, for example, only reading or hearing an explanation. Due to prior data indicating that the [mirror neurons] is more active when observing videos of actions compared with still images of actions

and this may imply greater effectiveness for use of dynamic rather than static visualizations. In fact, a meta-analysis found the use of dynamic visualizations to be more fruitful for learning outcomes, especially when animations were representational, realistic, and procedural- motor knowledge was involved. (pp. 266–267)

As research has revealed, a person’s mental experience is shaped by the physical actions they perform and the actions performed around them. This concept is central to embodied cognition understanding and practice. Additionally, this concept is a symbiotic feature of culturally responsive teaching strategies that embrace embodied cognitive approaches in classroom management, lesson and unit development, curriculum implementation, and overall pedagogy. Macrine and Fugate (2022) stated, “Embodied learning recognizes that understanding and retention are affected by the body and sensory input. Individuals’ interactions with the world impact their own motor and perceptual systems and thus will be also shaped by their culture” (p. 20). This was perhaps the most profound acknowledgement of embodied cognition and the interrelatedness of culturally responsive teaching practices. The current research crossed paths with embodied cognition by examining how video observation and direct peer reflection and interaction may activate embodied cognitive effects in teacher preparatory programs for new teacher candidates specifically in the practice of culturally responsive teaching practices.

Adult learning dynamics (i.e., andragogy) also provided additional context for the current research. Locke (1693), Rousseau (1762), and Usher et al. (1997) used andragogy in developing an understanding of human development, education, and how learning is impacted by nature or nurturing environments (Crain, 2011). From one theoretical standpoint, Locke endorsed the view that learning is best done in a properly constructed social environment and educational structure;

learning cannot be fully achieved without the adequate external enticements provided by nurturing teachers and structures (Crain, 2011).

From another theoretical viewpoint, Rousseau (1762) stated learning takes hold at different stages in an individual's life and in different capacities; this process was all part of nature's plan and did not require external forces at work such as proper social environment and educational arrangements. Rousseau's seminal theories included biological maturation (i.e., people learn at different paces according to their inner biological timetable) and individual centered learning, which established academic material according to an individual's age (Crain, 2011). Both Locke (1693) and Rousseau forged new perspectives of public thought that resulted in a foundational understanding and application of the atmosphere required to be an effective teacher of students at different stages and ages. These theories allowed future generations of social scientists to build upon and establish perspectives of human interaction learning, teaching, and development. To further advance and trace the trajectory and development, one must have a seminal understanding of human learning principles. By gaining this evolutionary understanding and applying it to contemporary education realities involving adult students, one can attempt to answer this study's research question.

From my own experience, I have briefly acknowledged younger, traditional students generally receive information passively from their instructors. These students are less focused on immediate results from the learning activities and display lower levels of autonomy and other self-directed characteristics (Lorenzetti, 2004). Alternatively, adult students are faced with a plethora of social responsibilities and life conditions that consume their attention and compete with their academic learning. Adult students generally have higher levels of autonomy, self-direction in learning and goal-oriented mindsets. These students seek programs in which they can

connect life experiences with their learning (Lorenzetti, 2004). Therefore, it could be inferred that instructors teaching adult students could benefit by applying teaching methods that account for these adult student characteristics. In doing so, instructors could emerge as facilitators and interpreters of the knowledge adult learners encompass and transform into meaning—an experiential learning lifestyle practice based on multiple realities and multiplicity of experience (Usher et al., 1997).

Experiential learning theory, which involves the four postmodern modes of learning and practice, can advance the understanding of adult education (Usher et al., 1997). These modes of learning—lifestyle, vocational, confessional, and critical practices—have a significant implication in the context of experiential learning involving adult education (Usher et al., 1997). For example, lifestyle practice centers on achievement and empowerment through autonomy and self-expression. In this practice, educators can achieve maximum effectiveness by becoming facilitators to interpret student knowledge through expanding possibilities for further experiences—in contrast to educators being a static source producer of knowledge (Usher et al., 1997).

Usher et al. (1997) reinforced experiential learning by affirming that instruction should not simply enforce learning by consuming or viewing information exclusively. On the contrary, Usher et al. found students were empowered through experiences in which meaning was positioned in contemporary culture. In simpler terms, teachers facilitated learning by interpreting knowledge through unique social experiences of the student (Usher et al., 1997). A second example of the four postmodern modes of learning and practice in adult education is applied when examining experiential learning in a vocational practices' mode. In vocational practices, emphasis on adult student motivation, personal change, problem solving through project-based

undertakings, and adapting to the needs of the socioeconomic market are accentuated. Through vocational practices, education takes on the form of a flexible product in which the social marketplace thirsts for lifelong knowledge acquisition of the adult learner. Furthermore, vocational practices of experiential learning reinforce the need for social skills, adaptable competencies, and continuous learning based on socioeconomic conditions rather than subject-based knowledge (Usher et al., 1997).

A critical practice of experiential learning offers a perspective focused on transformative learning of the adult student. In this critical practice method, students view instructors as facilitators through self-conscious questioning of student experiences and understanding. Through this process, students form an attachment of political and cultural representations and, thereby, develop meaning and understanding of experiences (i.e., marriage, childbirths, and new career) and knowledge (Usher et al., 1997). This is a transformative process that involves critical practices of experiential learning. This theory of four modes of social practice is tremendous when highlighting the value of adult students learning through experiences that encompass a great deal of the life experiences that make them unique from traditional younger students in education. In essence, learning is achieved from every experience an individual has in their lifetimes, whether they realize the learning is occurring or not.

People in many modern-day higher education institutions have increasingly acknowledged experiential learning because adult students enrolling in college have had a significant breadth and depth of lifetime experience, including those enrolled in university teacher preparatory programs (Gast, 2013). Because of these experiences, higher education institutions have increased their acceptance of prior learning acceptance credits toward an accredited degree completion program. Research composed by the Council for Adult and

Experiential Learning (CAEL, 2010, as cited in Gast, 2013) suggested “adult students who were allowed PLA credits were two and a half times more likely to persist to graduation than those who did not” (p. 21).

Kapp (1833–1937), a German high school teacher, originally published writings to describe the educational theory of philosopher Plato. Kapp’s work included an examination of a student’s lifelong necessity to learn. Kapp introduced the art and science of teaching adults—*andragogy* (Henschke, 2010). Although several decades passed without much attention or traction to the *andragogical* approach (Henschke, 2010), Knowles et al.’s (2012) research was one of a handful of contributions that brought a new vigor to the study of *andragogy* when he published his core principles of adult learning (i.e., *andragogy*). These principles included: (a) the learner needs to know (i.e., why, what, how), (b) self-concept of the learner (i.e., autonomous and self-directing), (c) prior experience of the learner (i.e., resource and mental models), (d) readiness to learn (i.e., life related and developmental tasks), (e) an orientation to learning (i.e., problem centered and contextual), and (f) motivation (i.e., intrinsic value and payoff) to learn (Knowles et al., 2012).

Knowles et al. (2012) found the core principles of *andragogy* were at maximum significance when they were tailored to the unique qualities of the adult learner and the learning environment. This social thought resembled Locke and Rousseau’s work. For instance, many modern-day academic institutions have not only embraced adult students, but they have also used an *andragogical* approach in designing accredited degree pathways and certification courses for adult students, such as accelerated programs, distance learning, and prior learning assessments (Ross-Gordon, 2011). The Empire State University faculty mentor model is an illustration of this approach. In this model, students work in collaboration with faculty to create highly

individualized programs of study (Ross-Gordon, 2011) to meet the adult students' own intrinsic value and forecasted needs.

The research covered in this study suggested the importance and historical basis of adult learning theories and what makes adult students a unique segment of higher education; in turn, this research focused on the need to address structural initiatives that focus on adult student learning design. This information assisted me in developing the problem of practice, centered on the framework in which preservice, new teacher candidates learn, apply, reflect, and improve their ability to foster a positive, culturally responsive teaching pedagogy and learn instructional moves associated with these abilities in an inclusive learning environment. Thus, this study focused less on the existing gap between theory and practice and more on the need for an effective means to bridge the two by watching and self-reflecting on an individual's own practice and reflecting with others in real time.

Culturally Responsive Teaching

The following section provides a review of research about culturally responsive teaching pedagogy and how it may play a critical role in new teacher education. Culturally responsive teaching pedagogy can be enhanced by introducing the pedagogical practice early to new teacher candidates as they build their teaching foundations.

Culturally Responsive Teaching and the Brain. Hammond and Jackson (2015) provided a foundational approach to engaging in what culturally responsive and responsible teaching pedagogy in the classroom should look like. In their book, they discussed how the marriage of scientific neuroplasticity and culturally responsive teaching pedagogy drove their proposed framework—the ready 4 rigor framework—to engage students in the classroom in a more intellectual capacity (Hammond & Jackson, 2015). Simply put, successfully teaching

students from culturally and linguistically diverse backgrounds involves building an increased awareness and knowledge of effective culturally responsive teaching practices, especially when teaching students from historically marginalized groups.

The framework consists of four core areas: (a) awareness, (b) information processing, (c) learning partnerships, and (d) community building. In the awareness practice area, teachers must (a) locate and acknowledge their own socio-political position, (b) sharpen and tune their cultural lens, and (c) learn to manage their own social-emotional response to student diversity (Hammond & Jackson, 2015). Secondly, in the learning partnerships practice area, teachers must establish an authentic connection with students that (a) builds mutual trust and respect, (b) leverages the trust bond to help students rise to higher expectations, (c) gives feedback in emotionally intelligent ways so students are able to take feedback in and act on it, and (d) holds students to high standards while offering them new intellectual challenges (Hammond & Jackson, 2015).

Third, in the practice area of information processing, teachers must (a) understand how culture impacts the brain's information processing, (b) orchestrate learning so it builds student's brain power in culturally congruent ways, and (c) use brain-based information processing strategies common to oral cultures (Hammond & Jackson, 2015). Finally, in the practice area of community building, teachers need to (a) integrate universal cultural elements and themes into the classroom, (b) use cultural practices and orientations to create a socially and intellectual safe space, and (c) set up rituals and routines that reinforce self-directed learning and academic identity (Hammond & Jackson, 2015).

One may wonder what concrete examples of these practices look like in the classroom. Some examples include engaging in activities and assignments that increase relationship building between students and their teacher. These practices also involve incorporating real-world

scenarios, using learning stations and games, inviting local guest speakers, relying on formative assessments, and incorporating student voice and student agency in every lesson and unit plan.

Urban Teachers Professed Classroom Management Strategies: Reflections of Culturally Responsive Teaching. In a qualitative research study, Brown (2004) interviewed 13 urban teachers teaching in a public-school system of Grades 1–7 from across a broad section of the United States on their use of classroom management strategies as they related to delivering a culturally responsive pedagogy. Data were collected to determine if the classroom management strategies teachers professed using matched the research on culturally responsive teaching (Brown, 2004).

Brown (2004) defined culturally responsive teaching as:

Culturally responsive teaching involves purposely responding to the needs of the many culturally and ethnically diverse learners in classrooms. It involves implementing specifically student-oriented instructional processes as well as choosing and delivering ethnically and culturally relevant curricula. Culturally responsive teachers use communication processes that reflect students' values and beliefs held about learning. (p. 268)

The research findings revealed primary themes for the teacher research participants, including (a) developing personal relationships and mutual respect through individualized attention, (b) creating caring learning communities, (c) establishing business-like learning environments, (d) establishing congruent communication processes, and (e) teaching with assertiveness and clearly stated expectations (Brown, 2004).

Brown (2004) concluded all urban teacher study participants used many specific management strategies that supported culturally responsive pedagogy. Furthermore, Brown

identified a question that arose out of the study's findings that involved whether preservice and in-service teacher training could prepare teachers to respond to the needs of urban students in culturally responsive ways through their chosen management strategies. Brown found no conclusive explanation for how these participants learned to accept and demonstrate culturally responsive management strategies other than learning through their direct experiences in urban schools. Brown (2004) noted:

Many universities and colleges offer urban education courses, urban field experiences, urban education emphases, and minors in urban education to preservice and in-service teachers. Professors who teach in these programs must be aware of the value of the theoretical viewpoints as well as the practical components of culturally responsive classroom management as described in the voices of experienced urban practitioners.

Much of the success of novice teachers in urban environments depends on their ability to develop positive classroom learning environments through the implementation of culturally responsive classroom management practices. (p. 287)

Teachers' Perceptions of Culturally Responsive Teaching in Technology-Supported Learning Environments. Chuang et al.'s (2020) study was completed in Taiwan and involved 257 elementary and secondary teachers in developing a measurement instrument (i.e., a questionnaire using a Likert scale) to assess teachers' perceptions of culturally responsive teaching in technology supported learning environments (TSLE). In total, 257 teachers (77 male and 180 female) returned valid responses and were included in the study. These participants consisted of 71 teachers from northern Taiwan, 17 from central Taiwan, 165 from southern Taiwan, and four from eastern Taiwan. Most teachers (81.3%) had more than 5 years of teaching

experience, whereas 18.7% were novice teachers who had fewer than 5 years of experience (Chuang et al., 2020).

First, Chuang et al. (2020) used valid research and evidence-based practices that involved culturally responsive teaching. These practices included affirming how well-developed culturally responsive teaching frameworks could facilitate teachers' understanding of how students' cultural backgrounds and experiences could be used to enhance student learning (Chuang et al., 2020). Second, digital tools and technology activities were among the best practices for teaching to multicultural classrooms due to the large differences in ethnically diverse student populations.

Finally, Chuang et al. (2020) considered culturally responsive teaching a fundamental pedagogical approach that should be included in teacher preparation and applied in learning activities in culturally diverse classrooms. Conversely, Chuang et al. revealed that teachers' technology experiences positively predicted teachers' perceived culturally responsive teaching in TSLE and school level was a negative predictor of teachers' culturally responsive teaching perceptions in TSLE, indicating an elementary school teacher was more likely to have a positive perception of culturally responsive teaching in TSLE than a secondary school teacher (Chuang et al., 2020).

Preservice Teachers' Culturally Responsive Teaching Self-Efficacy-Forming Experiences: A Mixed Methods Study. Siwatu's (2011) explanatory mixed-method study involved 180 teacher candidates (i.e., preservice teachers) enrolled in a university teacher preparatory program. It involved study participants in two phases of data collection. In the first phase, the participants were given a psychometric questionnaire consisting of 40 questions using a Likert scale that included self-rating one's self-efficacy. The second part of the study involved

a smaller subsample using the purposeful sampling technique of six women and two men. These participants engaged in a face-to-face interview involving nine open-ended questions.

The interview questions were designed to elicit information from preservice teachers about their coursework, practicum experiences, and perceptions of their professor's qualifications and experiences (Siwatu, 2011). Findings from this study were multifaceted. The quantitative phase revealed the nature of preservice teachers' culturally responsive teaching beliefs. The qualitative phase identified the types of experiences preservice teachers encountered during their university teacher education program that helped them form self-efficacy in culturally responsive teaching and their perceptions of the influence these experiences had on their development of culturally responsive teaching beliefs. Furthermore, the face-to-face interviews in the second phase of the study uncovered disparities among teacher candidates' exposure to practices associated with culturally responsive teaching.

On average, teacher candidates with higher self-efficacy reported that more of the tasks outlined in the self-efficacy scale were discussed in their teacher education courses compared to students with a lower self-efficacy belief. In addition to this disparity, teacher candidates revealed only a select few of their university courses exposed them to the theory and practices underlying culturally responsive teaching (Siwatu, 2011).

Teachers' Multicultural Attitudes and Perspective Taking Abilities as Factors in Culturally Responsive Teaching. In their study, Abacioglu et al. (2020) began by seeking quantitative evidence in support of two teacher qualities involving multicultural attitudes and perspective taking abilities. They examined the generalizability of previous findings in the literature that informed teachers' professional development and interventions. Their research involved 143 primary school teachers from different parts of the Netherlands. The participants

voluntarily completed an online questionnaire of 40 statements on a 5-point Likert-type scale about their practices in student assessment, curriculum and instruction, classroom management, and cultural enrichment (Abacioglu et al., 2020).

The items were based on the Culturally Responsive Teaching Self-Efficacy Scale (Siwatu, 2007) but were adapted to measure practices in the classrooms. Study results yielded significant relationships between the two teacher qualities and the frequency with which teachers engaged in socially and culturally sensitive teaching. Perspective taking was a stronger predictor for both aspects of culturally responsive teaching (Abacioglu et al., 2020). These findings signaled the significance of incorporating perspective-taking experiences and exercises of culturally responsive teaching practices into teacher education preparatory programs, which could benefit all students regardless of their backgrounds (Abacioglu et al., 2020).

The Role of Teacher Technology Experiences and School Technology Interactivity in Teachers' Culturally Responsive Teaching. Researchers in Taiwan observed how a school's commitment to technology use and teachers' technological experiences (either personal or pedagogical) were related to teacher perceptions of culturally responsive teaching in technology-supported learning environments (Cheng et al., 2022). Cheng et al. (2022) developed an online survey instrument that assessed the five constructs related to culturally responsive teaching in technology-supported learning environments. The instrument was given to 257 study participants (77 male and 180 female) who were licensed teachers in primary and secondary schools throughout Taiwan.

Cheng et al. (2022) sought to assess the effects of teachers' technology experiences and the degree of school technology interactivity on teachers' perceptions of culturally responsive teaching in technology-supported learning environments. When Cheng et al. examined the

effects of teachers' personal technology experiences, they found teachers' personal technology experiences had a statistically significant effect on five different points of culturally responsive teaching (Cheng et al., 2022). This study also cited previous research that found teachers tended to have more confidence and more positive attitudes about technology integration when they used computers more frequently in their personal lives (Yerdelen-Damar et al., 2017, as cited in Cheng et al., 2022), which was interesting given the technology aspect of using video observations in the current study. In addition, teachers' technology experiences in teaching had a significant relationship with culturally responsive teaching in technology-supported learning environments (Cheng et al., 2022).

Culturally Responsive Teaching and Reflection in Higher Education

In their textbook, Cochrane et al. (2017) assembled a cadre of essays from different contributors who explored how postsecondary educators could develop their own cultural awareness and provide inclusive learning environments for all students. The sections of the published work were organized into three main sections: (a) knowing ourselves, (b) pedagogy and power, and (c) practice in the community. In each section, Cochrane et al. critically shared concepts of cultural literacy, humility and reflection, reflections on identity and privilege, the pedagogy of culturally responsive teaching, understanding the experiential aspects of adult learners, and culturally responsive professional practices in the college classroom. This collection of essays allowed the reader to understand how to create culturally responsive learning environments.

In Chapter 2 of the first section titled Knowing Ourselves, Cochrane et al. (2017) focused on how she had come to understand herself more fully in terms of race or class. Cochrane et al. described several of her senses of White identity, and the implications for her current teaching

about race and social justice. Furthermore, the text examined White privilege and how White teachers can interact around social identities with undergraduate White students who may not have had many experiences reflecting, especially about race and religion. The second section titled *Pedagogy and the Other*, highlighted experiences around power and introduced ways in which faculty and students could change their relationships with Indigenous peoples using examples from teaching from an ecological framework (Cochrane et al., 2017).

Lastly, the third section titled *Practice in Community* presented narratives focused on disciplines or cultural groups in a university setting. In this section, the chapters outlined the value in which university faculty promote self-reflection about race and culture for themselves and their students, informing their professional practices, from the perspective of student teachers (Cochrane et al., 2017).

The Potential of Modelling Culturally Responsive Teaching: Preservice Teachers' Learning Experiences. In this qualitative research performed internationally during the autumn of 2013 and 2015, Acquah and Szelei (2020) cotaught a multicultural education course to Finnish and international students—master's degree students and Erasmus exchange students—at a medium-sized university in southwest Finland. The nature of this research required an investigative approach for an in-depth and comprehensive study of preservice teachers and the way they experienced observing and learned explicit modeling of culturally responsive teaching. The study participants consisted of 82 participants for the large sample. Acquah and Szelei chose a secondary sample of two study participants taken from the larger sample to participate in a more selected analysis that (a) recognized modeling on three levels, (b) showed different profiles in personal and professional experience with cultural diversity, and (c) elaborated on their learning experiences in detail in their journals.

The study suggested participants reconstructed their prior knowledge based on new impressions from the activities and environment in this class. Acquah and Szelei (2020) further connected this knowledge to pedagogical situations and transformed the way they thought about teachers' role in education specifically involving culturally responsive teaching. Although this study covered the impact of culturally responsive teaching in preservice teachers in a teacher preparatory program, it did not address the use of video observations and peer reflection as a tool for preservice teacher performance evaluation in undertaking culturally responsive teaching.

However, this study was significant in terms of its foundational alignment to the current study. Acquah and Szelei's (2020) recommendations also supported the foundations of the current dissertation study when they affirmed that further research was needed to follow preservice teachers engaging in culturally responsive teaching in their actual classrooms.

The Interplay Between Culturally Responsive Teaching, Cultural Diversity Beliefs, and Self-Reflection: A Multiple Case Study. In this relevant, multiple case study, Civitillo et al. (2019) examined culturally responsive teaching by using a validated classroom observation protocol. Civitillo et al. also examined teachers' beliefs about cultural diversity and gathered data on teacher self-reflection based on their classroom practices in a culturally and ethnically diverse high school in a large urban area in Germany. Furthermore, the study asked two fundamental questions: (a) How does culturally responsive teaching relate to teachers' beliefs about incorporating cultural diversity content into daily teaching and learning activities, and (b) how does the level of teachers' self-reflection on their own teaching relate to culturally responsive teaching (Civitillo et al., 2019). Ethnographic methods using video-recorded classroom observations and post observation interviews were combined, using the relevance of both quantitative and qualitative analyses of the data.

Civitillo et al.'s (2019) study aligned extraordinarily with the current research investigation. However, the study only took place in an international location, and did not occur in a university teacher preparatory program setting. The study participants were four ethnic German, current teachers as opposed to preservice new teacher candidates.

In summary, Civitillo et al. (2019) concluded teachers needed to reflect on the relationship between classroom practices and personal beliefs due to the overarching nature of their reciprocal and bidirectional effects. Civitillo et al. also stated when integrated with past studies of practices and beliefs, their findings supported the assumption that culturally responsive teaching required teachers hold beliefs considering cultural diversity a valuable resource in teaching and learning. Therefore, teachers should be confronted with beliefs that reject students' cultural capital at an early stage, namely during teaching preparation programs (Civitillo et al., 2019). This finding positively supported the current research involving video observation and peer reflection to support culturally responsive teaching in preservice, new teacher candidates in a teacher preparatory program.

An Examination of the Association Between Observed and Self-Reported Culturally Proficient Teaching Practices. Debnam et al. (2015) drew upon data from elementary and middle school classrooms involved in a larger study that was focused on the link between culturally responsive teaching and student engagement. Specifically, the study involved 142 K–8 teachers at six schools (i.e., three elementary and three middle) in Maryland who were participating in a study focused on the link between culturally responsive teaching and student engagement in Fall 2012. The teacher sample was largely female (82.3%) and White (87.7%); approximately 39% of teachers were between the ages of 20–30 (Debnam et al., 2015).

The primary aim of the study was to examine the average level of efficacy and self-reflection teachers reported regarding cultural responsiveness and observed levels of classroom management and use of culturally responsive teaching strategies (Debnam et al., 2015).

Conversely, the secondary aims of the study revolved around examining relationships between self-reported levels of culturally responsive teaching self-efficacy and cultural awareness, using observer tallies and ratings of teacher use of culturally responsive classroom management strategies (Debnam et al., 2015).

In conclusion, the study addressed several gaps regarding measurement of culturally responsive teaching, including the association between self-report and observational measures of cultural responsiveness (Debnam et al., 2015). The findings highlighted the likely importance of objective measures of cultural responsiveness to making data-based decisions for reducing disproportionality. Teachers' perceived competence in culturally responsive learning environments may not have accurately reflected teachers' actual classroom behaviors—perhaps due to social desirability bias or limited insight and self-reflection (Debnam et al., 2015). Debnam et al. (2015) reinforced the need for data-based feedback in implementation of culturally responsive classroom behavior management strategies in the classroom. Thus, this current dissertation sought to explore this topic further to understand this practice using an evidence-based framework (i.e., ready 4 rigor framework; Hammond & Jackson, 2015) and a structured university-based teacher preparatory program.

Student Teachers' Diverse Knowledge and Experiences of Religion – Implications for Culturally Responsive Teaching. In this case study, Elton-Chalcraft (2020) examined the self-assessed knowledge and experiences of religion and religious education of a sample subset of student teachers at an English university with a predominantly White student population.

Elton-Chalcraft laid the foundation for the emphasis of culturally responsive teaching with new teacher educators in nurturing culturally responsive pedagogy. Study participants were new teacher candidates in the beginning of their 1st-year teacher education course. In this study, the student teachers volunteered to self-assess their competence and ability to teach for diversity using a questionnaire with psychometric scale. Additionally, a sample of these student teachers were interviewed toward the end of their course (Elton-Chalcraft, 2020).

Therefore, two data collection methods were used in Elton-Chalcraft's (2020) study: (a) an audit questionnaire was completed by 97 out of a possible 120 student teachers to self-assess their subject knowledge in the six world religions and their learning journeys, and (b) a group of six students from the same cohort volunteered at the end of their 1-year course for the interview phase of the research (Elton-Chalcraft, 2020). The culminating data suggested some students were unaware of diversity issues. Some students acknowledged their eyes were opened during the research process and during university sessions to the complexity of issues such as racism, diversity, and working inclusively with children from diverse cultures (Elton-Chalcraft, 2020).

Although Elton-Chalcraft's (2020) research was narrow regarding looking at new teacher candidates and how they delivered culturally responsive teaching in a religious context, they shared relevant data based on the focus of the current research. First, Elton-Chalcraft examined new teacher candidates in a university-sponsored teacher preparatory program. Moreover, the data and recommendations identified the importance of new teacher educators facilitating small student group discussions to tease out the complexities of diverse learning environments. Furthermore, the study outlined the need for new teacher candidate learning to mirror the critical multicultural mindset, namely acknowledgement of inequality (Elton-Chalcraft, 2020).

Teacher Reflection

The following section explores the concept of teacher reflection and how it can be leveraged to deliver greater foundational results to increase culturally responsive teaching pedagogy among new teacher candidates.

Video as a Tool for Focusing Teacher Self-Reflection: Supporting and Provoking Teacher Learning. Hollingsworth and Clarke (2017) investigated learning opportunities provided to educators in a feedback process (i.e., teacher reflection) and made use of video as a tool for stimulating and informing teacher reflection and action. This research acknowledged (a) key aspects of the growth process were prominent outcomes to which educators themselves attached value, (b) approach design elements that provided teachers with heightened agency (i.e., learning, observing, and evaluating their practice and reflecting on their practice), and (c) specific actions to improve instruction (Hollingsworth & Clarke, 2017). Video was key to the research design, as researchers identified each video record as an artifact of the educator's practice that demanded a professional response from the teacher. Additionally, this study focused on investigating the kinds of feedback about classroom practice that can support and provoke teacher learning related to instructional improvement (Hollingsworth & Clarke, 2017). Hollingsworth and Clarke's (2017) study was framed by two research questions:

1. What kinds of feedback about classroom practice can be provided in a timely fashion to usefully inform instructional improvement?
2. How can video enable efficient analysis?

The research study design, including its scope and duration, included five phases across a period of 12 months. Phase 1 involved the design, testing, and refinement of a custom classroom observation framework. Phases 2–4 involved the collection and initial analysis of data from

teacher participants. Finally, Phase 5 involved further data analysis, interpretation, and reporting (Hollingsworth & Clarke, 2017).

Study participants were a focus group of 16 teachers working through a structured activity where they documented their interpretations individually and discussed them as a group. The focus group consisted of primary and secondary teachers from an independent school in Victoria, Australia, and all teachers taught mathematics classes during the course of the study. Following the focus group activity, the researchers examined the teachers' documented notes, considered points the teachers raised in the discussion, and made refinements to improve the clarity of some element descriptions (Hollingsworth & Clarke, 2017).

The resulting data included positive reports that the observation framework dimensions and elements helped to frame possible areas of practice, about which the study participants wanted to improve and feedback (Hollingsworth & Clarke, 2017). Furthermore, the study participants identified several ways in which using video added value to the analysis and feedback process used in the study (Hollingsworth & Clarke, 2017). This study was very relevant to the current dissertation research as it provided current insight on how video analysis could foster teacher reflection and overall teacher efficacy.

Supporting Student Teachers' Reflection as a Paradigm Shift Process. Svojanovsky (2017) looked at how university supervisors in a teacher preparatory program and student teachers reconciled experiences of reflection on observed teaching practices after lesson group interviews.

The research participants included seven university supervisors and eight student teachers who were asked to take part in the research (Svojanovsky, 2017). The research participants were assembled across a diverse group of supervisors and students and were mixed in terms of gender;

field specialization; and length of time in experience supporting reflection, teaching at primary or secondary school, and acting as mentors teaching at university (Svojanovsky, 2017). The research took place at a university in the Czech Republic in their education department. The data collection involved 90-minute unstructured in-depth interviews with each university supervisor and two 60-minute unstructured focus groups with student teachers in which the investigator's questions were formulated using participant language to be non leading, neutral, and noninterpretive (Svojanovsky, 2017).

Svojanovsky's (2017) research demonstrated that successful promotion of reflection required mentors and students to transform their beliefs and their behaviors when using traditionally conceived teaching methods. Moreover, the results of this research highlighted aspects of the supervisor–student interaction during the postlesson group interviews. Because students and supervisors were not accustomed to working in an alternative paradigm, this study demonstrated teaching usually takes place in the traditional way. This information suggested it is necessary to establish a culture of reflective practice in other subjects of a university teacher preparatory program for reflection support to be successful (Svojanovsky, 2017). Svojanovsky's research provided strong supporting evidence for the current dissertation research regarding how impactful peer reflection is for university teacher preparatory programs; in turn, this evidence could highly influence culturally responsive teacher training as well.

Technologies to Scaffold, Structure, and Transform Teacher Reflection. Rich and Hannafin's (2009) research contrasted emerging video annotation tools and their applications to support and potentially transform teacher reflection. The two researchers represented faculty at the University of Utah and the University of Georgia in the United States. The format of the research involved a scholarly review of the literature in which researchers identified studies

where teachers used a video annotation tool to record, annotate, and reflect on their own teaching. They conducted a review of published research by searching digital databases (i.e., ERIC, SSCI, PsycInfo, Academic Search Premier, and digital dissertation databases) using the following search terms: video, self-reflection, evaluation, teachers, and video analysis tools (Rich & Hannafin, 2009).

After using extensive search parameters, the researchers identified seven studies wherein teachers used a video annotation tool to record, annotate, and reflect on their own teaching (Rich & Hannafin, 2009). Conversely, these seven video annotation tools that met the criteria for inclusion involved: VAST, VITAL, the VAT, VideoTraces, Video Paper, MediaNotes, and Studiocode (Rich & Hannafin, 2009). The researchers analyzed these seven video annotation tools in terms of how they contributed to the study and utility of reflective practice in teacher education.

In summary, evidence suggested that video annotation tools provided a valuable resource that could augment and highly impact the teacher reflection experience by enabling and constructing the analysis process. In turn, teachers could share common frameworks to analyze each other's instructional application in a classroom thus providing a richer range of outlooks on individual professional practices (Rich & Hannafin, 2009). Although the current dissertation process did not focus on video annotation technologies, I explore how video technologies and peer reflection could improve student teacher efficacy of culturally responsive teaching in a university teacher preparatory program, of which Rich and Hannafin (2009) offered a solid review on video observation technologies, their associated annotation features, and their impact on teacher reflection in general.

Student Teachers' Experiences of Using Photos in Teacher Reflection. Beijaard et al. (2004) stated, "Teacher identity is thus not solid or fixed. Instead, as continuous and changing, it is created and re-created through dialogue in various contexts and relationships" (p. 121). This idea was the premise of Hahl's (2021) research. One of the novel data collection tools in this study employed a photo reflection report to describe students' feelings and considerations about teacher development. This data collection tool originated from an undergraduate college course titled Empowering Photography. The course was taught by Savolainen (2009, as cited in Hahl, 2021), who developed a therapeutically aligned pedagogic method using photos when working with mistreated young children in child protection.

Hahl's (2021) study involved a 1-year subject teacher education program in Finland. The participants were student teachers studying to become foreign language teachers with qualifications for all school levels (Hahl, 2021). A total of 27 new teacher candidate participants took part in the study. Each participant completed a questionnaire of Likert-type questions, two multiple-choice questions, and several open-ended questions. The open-ended questions sought to gain data on (a) students' experiences completing the photo reflection report, (b) their experiences taking photos and contemplating the texts for them, (c) how the photos helped them analyze their considerations in relation to being a teacher, and (d) how photos helped them structure reflection. The other open-ended question asked what value the photos had brought to each participants' teacher professional practice experiences, and whether the student teachers faced any challenges in this regard. The participants were also asked to relay any additional comments about the photo report or reflection in general (Hahl, 2021).

In summary, research results provided sufficient data on the effectiveness of viewing a photo report of teachers in action in a classroom toward teacher reflection. Twenty participants

considered the compilation of the photo reflection report appropriate for considering their teacher development, and seven considered it very appropriate (Hahl, 2021). All the student teacher participants stated they found the photo reflection report a positive and rewarding experience of teacher reflection that allowed their own personality to arise and overall creativity to flourish (Hahl, 2021). This very current research provided excellent data to build a hypothesis on the outcome of the current dissertation model that examined how to use online video observations and peer reflection to teach and address culturally responsive teaching in a university teacher preparatory program for preservice teachers.

Reflection in Preservice Teacher Education: Exploring the Nature of Four EFL Preservice Teachers' Reflections. Yalcin Arslan's (2019) year-long study examined the landscape of reflections for four English as a foreign language (EFL), preservice teachers in Turkey. Three females and one male, whose ages ranged from 22 to 24 years, participated in this longitudinal study taking place during the phases of new teacher candidates' initial observation, teaching practice, and entry into the teaching profession (Yalcin Arslan, 2019). Understanding student teacher's individual reflections throughout the phases of school experience, teaching practice, and entry into the workplace was central to this research. Qualitative data collection was facilitated by interviews conducted throughout the study's duration, and the collected data were subsequently analyzed using content analysis (Yalcin Arslan, 2019). In addition, Yalcin Arslan employed the onion model of reflection—which comprises six themes—to interpret participant data. The onion model themes included outer level onion model themes (i.e., environment, behavior, and competence) and inner level onion model themes (i.e., beliefs, identity, and mission).

The findings indicated that although most of the study participants' reflections concerned environment, behavior, and competence (i.e., outer level of the onion model), some reflections pertained to mission (i.e., inner level of the onion model). Moreover, an examination of participants' individual reflection processes revealed although their reflections were initially outer level in nature, reflections became more inner-level-oriented by the end of the study; thus, the study's results showed encouraging EFL preservice teachers to reflect on their teaching might help them to recognize their strengths and weaknesses so they might improve themselves during the reflection period (Yalcin Arslan, 2019). Although small in scope, this study demonstrated how reflection can evolve among preservice teacher candidates in a university teacher preparatory program. This evolution includes developing reflective practitioner traits related to teaching and teaching contexts and the ability to reconstruct existing knowledge and transmit this knowledge into actual teaching growth over time.

Preservice Teachers' Reflection on Their Efficacy Beliefs in Conducting Action

Research. In their international research performed in the Filipino Islands (a country of southeast Asia), Ugalingan et al. (2022) looked at preservice teachers' reflections on their self-efficacy beliefs when they conducted action research as a culminating requirement for their degree. The main aspects of this research analyzed several patterns to observe consistencies or inconsistencies of self-aptitude among study participants, as revealed by their self-reflections (Ugalingan et al., 2022). In this qualitative research, 10 undergraduate university student participants were asked to write seven reflective journals each as they went through the various stages of performing their own individual action research for their university studies.

The reflective journals consisted of 76 journals written by the participants for the eight stages of their action research, including: (a) planning the research proposal, (b) conducting the

needs analysis or classroom observation, (c) writing their research proposal, (d) defending their research proposal, (e) planning and preparing for their research implementation, (f) implementing their intervention, (g) analyzing the data and composing final paper, and (h) defending their final paper (Ugalingan et al., 2022).

Each study participant agreed and gave their consent to use their written outputs in a series of studies. For each reflective writing task, Ugalingan et al. (2022) prepared a unique prompt, which the participants addressed. Data from the 10 participants suggested self-efficacy was significantly influenced by the following factors: (a) previous performance accomplishments, (b) perceptions toward the people they collaborated, and (c) positive and negative emotions toward their own individual action research experiences (Ugalingan et al., 2022). The conclusion of the research provided validity to the claim that the learners' past experiences caused how preservice teachers saw their self-efficacy.

In addition, the study confirmed the findings of previous studies that participants' beliefs are formed as they undergo the entire research process. Thus, the relevancy of this research provided support to the current dissertation in which preservice teachers engaged in video observations of their peers teaching in a classroom and peer reflections to address and teach culturally responsive teaching, which are all experiential components that can impact how teachers view their own self-efficacy.

Preservice Teachers' Reflections When Drama Was Integrated in a Science Teacher Education Program. There has been an ongoing debate on the impact of using alternative learning strategies like drama in facilitating learning across a broad spectrum of disciplines including science. Walan's (2022) research sought to explore this phenomenon specifically in relation to how preservice teachers in a university teacher preparatory program were able to

create dramas related to content in a biology course. Additionally, this study included asking how preservice teachers (i.e., study participants) reflected on drama as an instructional strategy to stimulate conceptual understanding about scientific concepts (e.g., cells and cell processes), both for themselves and for their future students (Walan, 2022).

Participants in Walan's (2022) research consisted of 10 preservice teachers in a university sponsored teacher preparatory program in Sweden in their 1st year of studies to become teachers at secondary school. Data from the study participants included self-reflective student reports and video-recordings in which they created and delivered unique lesson plans using dramas from each participant and participants' complimentary confirming reports.

The research study included a rather small sample size and the practice session in which the study participants engaged was limited; however, results still revealed measurable data points for how preservice teachers who had never experienced drama in their science education were optimistic in using drama to create and develop science lessons and curriculum to teach secondary school students. The study participants also provided feedback data that supported the use of drama strategies in their own understanding of scientific processes (Walan, 2022).

Even though this study used video observation along with preservice, new teacher candidates in a university teacher preparatory program, it did not specifically discuss aspects of improving and addressing the use of culturally responsive teaching with video observation and peer reflection.

Portraying Reflection: The Contents of Student Teachers' Reflection on Personal Practical Theories and Practicum Experience. Maaranen and Stenberg's (2017) research focused on new teacher candidates' (i.e., preservice teachers in a university program) reflections on their personal practical theories and the relation of these theories to the field experience (i.e.,

theory-to-practice), which occurred at the end of their university program. The case study involved six elementary school student teachers in Finland who had constructed their own personal practical theories before their practicum (Maaranen & Stenberg, 2017).

It is important to note the new teacher candidates' pathway in this specific teacher preparatory program required 300 credit hours to graduate with their master's degree in teaching; however, the new teacher practicum (i.e., student teaching) only consisted of 20 credit hours. The teacher candidates' personal practical theories represented their individuals' perspectives of what they considered best practices of effective teaching standards (Maaranen & Stenberg, 2017). After examining the teacher candidates' reflections, the results displayed that most of their reflection focused on environment and behavior. Simply put, the candidates placed greater emphasis on practical teacher qualities as opposed to idealistic qualities like teaching theories (Maaranen & Stenberg, 2017).

In summary, Maaranen and Stenberg (2017) revealed there was certainly a theory-to-practice dilemma in university teacher preparatory programs and the study participants valued concrete practical teaching applications as opposed to theories and research regarding the science of teaching. Conversely, creating programs that (a) work to promote critical reflection and collaboration, (b) provide conceptual frameworks and clear pedagogical strategies (e.g., culturally responsive teaching), and (c) expose candidates to diverse classroom situations for greater periods (Maaranen & Stenberg, 2017) can have a greater impact on being an effective reflective practitioner.

Exploring the Impact of Preservice Science Teachers' Reflection Skills on the Development of Professional Knowledge During a Field Experience. Kulgemeyer et al. (2021) analyzed new teacher education for academic science teachers and their associated field

experiences (i.e., practicum). In this study, investigators sought to understand the role of reflection skills in development of professional knowledge during a 1-semester field experience in four German university teacher preparatory programs.

The study participants consisted of 94 science teacher candidates (i.e., preservice teachers). The main question the researchers wanted to test was: Do reflection skills impact the development of professional knowledge during a field experience (Kulgemeyer et al., 2021). Each study participant completed questionnaires to measure teacher reflection, which included 14 topics. A few of these topics were student misconceptions, teaching methods, and dealing with heterogeneity; preservice teachers had to rate the degree to which the topics were discussed using a 4-point Likert scale (Kulgemeyer et al., 2021).

In conclusion, researchers found a degree of evidence to support the position that the more developed an individual's reflection skills were at the beginning of a field experience, the more professional knowledge they would develop during the field experience (Kulgemeyer et al., 2021). Conversely, this research also supported the position that called for creating programs that both work to (a) promote critical reflection, collaboration, conceptual framework development, practical pedagogical strategies (e.g., culturally responsive teaching) and (b) expose candidates to diverse classroom situations with the use of technology (i.e., video observations). These actions should provide the necessary foundations to develop new teacher candidate's reflection skills and in turn they should be better positioned during field experiences.

Bounded Decision Making, Teachers' Reflection and Organizational Learning: How Research Can Inform Teachers and Teaching. Cain et al.'s (2019) research from the United Kingdom provided a review of the literature in analyzing how research could inform teachers and teaching. In their review, Cain et al. looked at several segments of research that informed

their position. This approach included a proposition of a new conceptual framework for understanding how research could inform and impact the practice of education; specifically, this approach examined how research could apprise teachers and their associated practice of teaching in schools directly (Cain et al., 2019). This framework encompassed an understanding of (a) educational practice and educational research, (b) research that could inform bounded decision making, (c) research that could inform teachers' reflection, and (d) research that could inform organizational learning (Cain et al., 2019).

In summary, Cain et al. (2019) concluded their review of the literature supported a position that suggested reflective research could inform teachers in engaging in bounded decision making by providing evidence that is understood in the light of assumptions. Reflective research could also be considered in discussions from which decisions and actions emerge and it could increase teachers' reflection, influencing what teachers think about and how they think (i.e., metacognitive dynamics), and how it leads to their growth as a professional practitioner (Cain et al., 2019). Lastly, reflective research could inform the realm of organizational learning when fostered in profession development settings (Cain et al., 2019).

The Power of Video Observations

Video observations have been accepted in many industries and disciplines in an effort to increase awareness and learning. This section examines the literature on the power of video observations and how they have been leveraged to increase learning outcomes.

VF in Education and Training: Putting Learning in the Picture. The overarching theme and goal of Fukkink et al.'s (2011) profound research was to gain a powerful perspective on VF in education. Their research provided a literature review in which they investigated significant questions in their meta-analysis of experimental VF studies published between 1973

and 2009 (Fukkink et al., 2011). They inquired on two main questions, which included (a) what effect (if any) did VF interventions have on interaction skills of professionals and (b) which methodological and pedagogical characteristics correlate systematically with the results of experimental studies into VF (Fukkink et al., 2011).

Perhaps what was most revealing of their review of the literature regarding VF was that the most used study design was a controlled design with a pre- and post-test. Furthermore, random assignment of conditions occurred in half of the controlled studies, and detailed assessment using micro measures occurred in 70% of cases, with assessment of comprehensive concepts or overall frameworks or structures in skills occurring less frequently (30%; Fukkink et al., 2011).

Fukkink et al.'s (2011) summary of their research was impactful because they demonstrated through meta-analysis how the VF method had a statistically significant effect on professionals' interaction skills in a range of contact professions. Moreover, the cumulative effect calculated based on 217 experimental comparisons (from 33 experimental studies involving a total of 1,058 people) was 0.40 standard deviation, which was significant in terms of effectiveness (Fukkink et al., 2011).

Using Video-Based Observation Research Methods in Primary Care Health Encounters to Evaluate Complex Interactions. In this meta-analysis, Asan and Montague (2014) reviewed studies in the literature that used video methods in health care research. Conversely, they also discussed their own experiences based on the video studies conducted in primary health care settings (Asan & Montague, 2014). Their research highlighted the benefits of using video techniques such as multichannel recording and video coding; they compared unmanned video recording with the traditional observation method in primary health care

research (Asan & Montague, 2014). Their research also described complications future researchers may anticipate when using video recording methods in upcoming studies.

In conclusion, new technological improvements in video-based observation have been increasing in primary health care research (Asan & Montague, 2014). In the healthcare industry, video recording has been underused as a data collection tool because of confidentiality and privacy issues required by governmental authorities that carry severe legal and financial penalties for breaches in such areas. Although this meta-analysis research was limited to the healthcare industry—rather than the educational field—it is important to highlight how video-based observations have been used as a platform that transcends industry and can be universally used to improve learning regardless of the subject, discipline, and field. Conversely, although Asan and Matague's (2014) research highlighted the aspect of video-based observations to improve training and education of healthcare professions, they did not explicitly identify the use of video-based observations in conjunction with peer feedback and professional reflection, which are two powerful factors that may leverage educational and training value.

Supporting Preservice Teachers to Implement Systematic Instruction Through Video Review, Reflection, and Performance Feedback. McLeod's (2019) research was perhaps the most significant study for the current dissertation study because the study covered very similar aspects involving video-based observations and reflection, peer feedback, and new teacher candidates (i.e., preservice teachers) in a university teacher preparatory program. McLeod's research looked to answer a specific question regarding the training and education of new teacher candidates: is training, practice, and group reflection and feedback effective in supporting preservice teachers' use of constant time delay (CTD) with preservice teachers in a

dual early childhood/early childhood special education teacher education program (McLeod, 2019)?

Eleven teacher candidates volunteered to participate in McLeod's (2019) research. All research participants were female and enrolled in a teacher certification program with endorsements in early childhood and early childhood special education at a public university in a southeastern state of the United States. Furthermore, the case study provided one model of promoting reflection and providing feedback in the group of early childhood special education preservice teachers on implementation of CTD procedures (McLeod, 2019). The model contributed to the literature by building on effective components of professional development and adult learning. Each study participant was required to develop an action plan in their program and was able to use their research participation in conjunction with teaching, demonstration, and practice during course sessions and self-reflection and peer group feedback to support implementation of the developed action plans (McLeod, 2019). McLeod analyzed the action plans and discussed the resulting fidelity data.

In conclusion, this research highlighted how preservice teachers achieved methodical instructional procedures with fidelity in a classroom setting in high levels after engaging in a combination of training, practice, and use of video-based observations with group peer reflections and feedback (McLeod, 2019). Although this research did contain several important aspects of the current dissertation research, it did not explicitly focus on culturally responsive teaching practices using the ready 4 rigor framework (Hammond & Jackson, 2015) and the research participant sample size was relatively small at only 11. McLeod (2019) even stated future researchers should identify specific practices teachers need to implement with fidelity and provide support for those practices.

Effectiveness of a Video-Feedback and Questioning Programme to Develop

Cognitive Expertise in Sport. In Helsinki, Finland, García-González et al. (2013) focused on the impact of VF and reflection in the athletic sports discipline. Data garnered from their research were eye opening. Eleven male tennis players participated in the study; they were divided into two groups: a control group and an experimental group. The research participants belonged to the same athletic club and training group, and they had the same trainer; all of them trained at least 4 hours per week (García-González et al., 2013). The researchers' basic summary analyzed the players' own decisions by means of VF followed by reflective questioning by an athletic trainer.

Each study participant was required to visualize successful and unsuccessful decisions about their own actions via VF observations. García-González et al. (2013) hypothesized that by viewing their actions, the study participants should identify the main reasons why they made specific athletic choices that led to success or failure on the tennis court. The goal of the athletic trainer interacting with the VF and reflective questioning sessions was not only to guide the study participants' analysis of the observed athletic behavior with open questioning, but also to assist with fidelity of the research protocol and not directly give answers to the proposed questions (García-González et al., 2013).

In summary, the data from this research highlighted strong connections regarding the impact of VF on the study participants. First, in the experimental group, significant differences with a higher quantity of regulatory concepts in problem depiction demonstrated a greater and more varied evaluation of the study participants' actions and a greater self-evaluation capacity (i.e., self-reflection) related to players with a higher level of expertise (García-González et al., 2013). Second, the data revealed how the knowledge base of the study participants who had been

exposed to the tactical-cognitive training programming based on VF and questioning evolved toward characteristics typical of a higher level of expertise (García-González et al., 2013).

Although this research study was small in nature and it did not take place in the educational realm, it did provide strong, recent, reliable, and valuable data that demonstrated the value of VF observations and reflective questioning on human performance, which can be applied in many settings.

VF Intervention With Children: A Systematic Review. Balldin et al. (2018)

investigated findings from trials evaluating VF programs in studies published between 1990 and 2014. Their review included studies using experimental or quasi-experimental methodologies and randomized controlled trials as the dominant design (Balldin et al., 2018). The researchers sought to address two central questions with their review of the literature research: (a) what aspects were focused upon for measurement and what outcomes were presented from the included VF programs and (b) what were the components of these VF programs? (Balldin et al., 2018).

Balldin et al. (2018) collected the published studies analytically using two strategies, including searching electronic databases and studying references in the included studies (i.e., snowball method). The inclusion criteria used in their research of literature involved studies that included (a) individual VF intervention with parent and child interaction by having one specific child in focus; (b) studies published in English between the years 1990 and 2014 with children between 1 month and 12 years old; (c) studies on reports with at least one quantitative measure, a rating scale, or an observation method before and after treatment; and finally, (d) studies that included at least two groups of participants (i.e., experiment group and control group; Balldin et al., 2018).

The results from the literature review research produced findings that suggested VF programs enhanced positive parent–child interaction. Overall, the effect differences were small to moderate, though some studies presented somewhat larger effect differences in the impact of VF intervention effectiveness (Balldin et al., 2018). Although this research did not produce any new original research, it did highlight a vast amount of existing research on the positive self-efficacy of VF interventions involving parents and children.

A Comparison of Written, Vocal, and VF When Training Teachers. Luck et al.’s (2018) research was conducted during one of two 5-day, university-based summer training sessions focused on delivering behavior analytic instructional methods, namely discrete trial-teaching. Participants included six certified special education teachers and four children who were previously diagnosed with autism spectrum disorder. All study participants (i.e., special education teachers) and the children—with legal guardian consent—volunteered to participate in the study (Luck et al., 2018). The children participants were 4–7 years old and all attended a university-based behavior analytic intervention program for 15 hours per week (Luck et al., 2018).

The goal of this research study was to compare the efficacy and partiality of written feedback and vocal feedback with and without video replays of observed performance. In the first experiment, the study compared written and vocal feedback when training teachers to conduct two different types of preference assessments involving discrete trial-teaching. Researchers then compared the type of feedback associated with the fewest number of training sessions or the teachers’ preferred type of feedback from two experiment sessions.

In summary, each study participant teacher was asked to rank the three forms of feedback in order from most to least preferred; three of the six teachers ranked vocal feedback the highest,

two teachers ranked vocal-plus-video feedback the highest, and one teacher ranked written feedback the highest. Many teachers reported they liked written feedback because they could refer to past feedback they had received, but they did not like it as the sole source of feedback (Luck et al., 2018).

Although these results may not have been glaringly supportive of using video observations to improve professional performance, it is important to note it was plausible the teachers did not like the specific way the researchers used the video replays in this study. Specifically, the teachers may not have liked the associated feedback allowed as part of this research as they were not permitted to ask questions and did not receive any feedback from the supervisor other than a scorecard. The researchers even cited “further research is needed to more fully understand the relative efficacy of, preference for, and reinforcing quality of different feedback forms” (Luck et al., 2018, p. 143). This ending assertion certainly supported the efforts of the current dissertation research, which looked to gain insight on how both video observations and real-time, peer reflective analysis can improve self-efficacy for new teacher candidates in employing culturally responsive teaching in the classroom.

Feedback in Video Game-Based Adaptive Training. In the following research by the U.S. Army Research Institute for Behavioral and Social Sciences, Rivera (2011) observed the realm of video game-based adaptive training and the related flexibility and adaptability for training in cost-effective ways. This research was performed between August of 2008 and April of 2010. The structure of the research involved a mixed-design method; active military personnel participants were randomly assigned to one of four conditions: (a) frequent positive feedback, (b) infrequent positive feedback, (c) frequent negative feedback, or (d) infrequent negative feedback.

All these methods were performed with voice-over feedback that was provided to the trainee as they conducted video game-based adaptive training in interpersonal skills through the application of highly experiential and scenario-based training (Rivera, 2011). Participants were asked to complete two missions developed by a third party contracted by the U.S. Army (i.e., Chi Systems, Inc. VECTOR). In addition to engaging in the video game platform, participants were asked to fill out several data measures, including a multiple choice pre- and post-test on interpersonal skills, a Feedback Orientation Scale, a manipulation check scale, a presence scale, an attention scale, and a self-efficacy scale (Rivera, 2011).

According to Rivera's (2011) findings, the U.S. Army's research suggested video game-based training scenarios combined with frequent feedback led to higher posttest scores than infrequent feedback. Furthermore, infrequent feedback caused the participants to compile incorrect information, which decreased performance (Rivera, 2011). Although the research aim was to provide a deeper understanding of feedback relevance in a video game-based adaptive training environment, it could also be quite applicable when considering video observations and peer reflections of new teacher candidates in delivering a particular teaching pedagogy such as culturally responsive teaching.

The theoretical framework highlighted in this research could help explain what type of feedback is most beneficial for learning a complex task in an adaptive environment (e.g., teaching a pedagogy or a military adaptive training method). Moreover, this effort could serve as a foundational base toward testing competing VF theories which include, but are not limited to, examining the role of feedback frequency and feedback on performance in a video-based environment.

Peer Video Review and Feedback Improve Performance in Basic Surgical Skills.

Vaughn et al.'s (2016) research involved 24 surgical interns and examined whether computer-based video instruction was as helpful as in-person expert feedback for learning basic surgical skills. Specifically, researchers sought to compare intern performance based on whether they received feedback from peers or received faculty feedback and then the resulting data compared the quantity and quality of the feedback given by faculty and peers (Vaughn et al., 2016).

The results showed both peer feedback and faculty feedback groups improved in basic surgical skills over time; however, the greatest improvements were seen in a low stress home-video environment. The peer feedback group performed better at the final assessment, suggesting a potential advantage of reviewing peer performance (Vaughn et al., 2016). Although this study involved a medical environment as opposed to an educational environment, it did have some strong aligning points of reference that supported how peer feedback and video observations could improve skills like culturally responsive teaching practices of new residency candidates looking to enter a given field such as medical candidates or new teacher candidates.

Significance of the Study

This study examined use of online video observations and real-time peer reflective analysis to engage in culturally responsive teaching pedagogy in classrooms. This study served as a call for more explicit research, conversation, reflection, and instruction to facilitate preservice, new teacher candidate learning on how to (a) conduct and participate in courageous conversations about diversity and race, (b) be more cognizant of internal biases observed in

one's own instruction and interactions, and (c) foster truly inclusive learning environments for students.

Simply put, this study showed whether participants' confidence changed in their abilities to deliver and address culturally responsive teaching pedagogy after seeing themselves teach on video (and their peers) and receiving real-time, peer reflective analysis on their performances in a classroom. Data from this research uncovered ways video analysis and real-time, peer reflective analysis can be framed to explore delivering and addressing culturally responsive teaching pedagogy in a classroom to support both theory and practice (i.e., theory-to-practice gap) in a practical setting in a university teacher preparatory program.

Within their small groups, participants also developed strategies on how they might support each other in developing greater self-awareness and growth in how they operate and interact with diverse students. The groups shared their questions, thoughts, and strategies to help formulate a larger conversation around how new teacher preparation programs could support preservice, new teacher candidates in this reflective process. Facilitated discussion then proceeded to allow participants to discuss, as a whole, the types of frameworks that could be created to facilitate this type of learning using online video platforms.

Ethical Considerations

This study looked at the individual perceptions of study participants in how they saw themselves delivering culturally responsive teaching pedagogy in a classroom setting and conversely how their peers engaged in reflective analysis of their performance. Because this process could require a degree of vulnerability and, in particular, White fragility, participants could have potentially felt discomfort with unexpected results. As such, participants had access

to free counseling on the university campus and affinity groups provided by the teacher certification program.

The university also provided a dedicated counseling center that was staffed with trained and licensed professionals who guided and supported affinity groups such as wellness self-care, student veterans, work–life balance, anxiety management, gender identity exploration, and body image groups. These groups had specific time and meeting dates. In addition to these groups, professional counseling services were provided by the university counseling center for individual, relationship, and group sessions at no cost to the student. All contact information for the university counseling center was provided to the study participants.

Furthermore, as the principal researcher and a faculty member (i.e., associate teacher) at the participating university, I did my utmost to mitigate the power dynamic as teacher/assessor and researcher in the following manner. First, I reiterated how this study would have no impact on the outcome of their evaluative class grade at the university. I then employed evidence-based practices of safe conversations, including (a) using the framework of formulating well-defined and answerable questions, (b) seeking the best evidence to guide discussions and answers to questions, (c) respectfully and responsibly evaluating the evidence, and (c) applying the evidence to the individual participant. Lastly, I reiterated both in writing and verbally to study participants the importance of the research; the importance of confidentiality and respectful, responsible, and kind conversations; and the acknowledgement that participants could stop participation at any time during the study.

Definitions of Key Terms

Culturally responsive pedagogy is a term used to describe teaching methods that incorporate instructional planning with specialized knowledge about diverse brain-based learning

attributes possessed by students from different socioeconomic, cultural, ethnic, familial, trauma impacted, and community settings (Hammond & Jackson, 2015). Culturally responsive pedagogy is like an umbrella of teaching. Teaching practices such as Universal Design for Learning (UDL) are the stem holding it up. Teaching practices such as direct instruction, collaborative teaching, inductive teaching, and Socratic seminar teaching (just to name a few) all fall under the culturally responsive pedagogy umbrella.

Peer reflective analysis refers to individuals who are actively engaged in a university teacher preparatory program and engaged in the research study, by observing video evidence of their fellow study participants, engaging in real classroom instruction, and analyzing their performance based on culturally responsive teaching pedagogy metrics (Beauchamp, 2015).

Preservice teachers are generally referred to as new teacher candidates who are undertaking a rigorous academic program within a state approved university setting in which the outcome is initial teacher certification by the corresponding state agency (McLeod, 2019).

Ready 4 rigor framework refers to four practice areas (i.e., awareness, learning partnerships, information processing, and community building) involving culturally responsive teaching pedagogy actions that inform strategies that students need to engage and take active ownership of their learning (Hammond & Jackson, 2015).

Chapter 2: Data and Results

The purpose of this study was to gain a better understanding of how study participants' individual perceptions changed, if at all, from how they initially saw themselves delivering and addressing culturally responsive teaching pedagogy in a classroom setting and a university preparatory program designed for preservice teachers. The primary research question for this study asked, how does using online video observations and real-time, peer reflective analysis increase awareness of culturally responsive teaching pedagogy in a university teacher preparatory program for preservice teachers? Three themes were previously identified based on research of the literature to address this research question: (a) Culturally Responsive Teaching, (b) The Power of Video Observations, and (c) Teacher Reflection.

Methodology

This case study used qualitative and quantitative evidence to inform new teacher practices in City University of Seattle's teacher preparatory program settings. I recruited each participant in person through formal presentations of the proposed research study to City University of Seattle students. These were done in class sessions at three campus locations in Edmonds, Tacoma, and Vancouver, Washington. The case study approach was necessary for the following research because this particular investigation involved in-depth, multifaceted understanding of a complex issue in a real-life context.

Participants

All participants in this current study were selected via nonrandom sampling. All participants then received a recruitment letter and then signed an informed consent letter to participate in the research (see Appendices A and B, respectively). In total, 21 participants volunteered and returned signed informed consent forms to be included in this study. Four

participants notified me of their intent to withdraw from the study due to personal time commitment issues. Eleven participants did not attend any of the research meetings or respond to any of my further correspondence (i.e., nine emails and four text reminders). However, six individuals actively participated in all components of this study (i.e., nonrandom sampling) and provided both quantitative and qualitative data to be used in this research.

A high level of volunteer participants displayed an initial eagerness to engage in the study but then did not participate. All participants were adults who not only held full-time jobs in school settings but also managed a complete set of personal responsibilities (e.g., family commitments) in addition to maintaining a full-time class load as a student in a university teacher preparatory program; therefore, many could have viewed participating in an optional research study as a low priority. Moreover, all six research participants were current university students enrolled in a teacher preparatory program (preservice teachers). Age ranges were from 25–50 years old. Specifically, the participants were candidates in bachelor of arts in education, master's degree in education, and alternative routes to certification (both undergraduate and graduate level) enrolled in EDU 309: Social Justice, Equity and Diversity and ETC 507: Social Justice, Equity, and Diversity within the University system. The participants were all located in the state of Washington and the majority identified as female. Most participants also identified as white.

Procedures and Instrumentation

Prior to the beginning of each research session, participants completed a self-evaluative presurvey and rated themselves on their culturally responsive teaching pedagogy skills. The quantitative data collection instrument used to collect the pre- and post-survey data was a self-evaluation psychometric response scale (i.e., Likert scale 1–5; see Appendix C). The presurvey

was built using the four areas of culturally responsive teaching (i.e., awareness, learning partnerships, information processing, and community building; Hammond & Jackson, 2015). This was accomplished by extracting key performance strands from each area. For example, under the awareness category, teachers must work to (a) locate and acknowledge their sociopolitical position, (b) sharpen and tune their cultural lens, and (c) learn to manage their social-emotional response to student diversity (Hammond, 2015). Then, Strand C was extracted and turned into a question for the pre- and post-survey to appear in the following manner: Do you think you manage your own social-emotional response to student diversity in the classroom well? This process was performed for five of the six pre- and post-survey questions.

After participants completed the self-evaluative presurvey, qualitative data were collected from participants when they engaged in a reflective group discussion with their peers and the principal researcher. Due to geographic distance between participants, the groups met via Zoom video conferencing with all applicable security settings. In the group settings, participants watched video recordings of their peers and themselves engaging in classroom instruction from their student teaching practicum videos held in Edthena. Participants then evaluated how they delivered culturally responsive teaching pedagogy in a K–12 public school classroom setting.

After viewing each video, I guided study participants in group discussion. The group discussions were also facilitated using the four areas of culturally responsive teaching (i.e., awareness, learning partnerships, information processing, and community building) and associated reflective question prompts. Each research participant was provided 5 minutes to write down reflective notes (see Appendix D). These prompts encompassed all culturally responsive themes under the (a) awareness, (b) learning partnerships, (c) information processing, and (d) community building areas.

After each group session was completed, study participants were instructed to fill out a self-evaluative postsurvey. The postsurvey was also built using the four areas of culturally responsive teaching (Hammond & Jackson, 2015) and psychometric response scale (i.e., Likert scale 1–5).

Then I analyzed pre- and post-self-evaluative surveys and personal written reflections in the following manner. First, the quantitative data (i.e., data from the Likert-scale pre- and post-surveys) were analyzed by calculating a composite score (i.e., mean) from the Likert-scale items. Then the composite score for Likert scales were analyzed at the interval measurement scale. Descriptive statistics for the interval scale items included the mean for central tendency and standard deviations for variability. The results were then placed into a table along with the corresponding questions posed to each study participant. In addition, the results were also placed into a bar graph to provide a pre- and post-visualization.

Video recordings were taken in a K–12 participating school district classroom in which the participants were working. These videos were a part of the student-teaching portfolio they were required to assemble to graduate from their teaching preparatory program. These videos were uploaded to Edthena, the secure video repository of City University of Seattle. Data collection occurred in Fall 2022. Participants voluntarily provided these videos for this study and all necessary subject release forms were obtained through City University of Seattle.

All data were stored using City University of Seattle's OneDrive system. Videos used or created for the study were stored by Edthena, a partner repository. Both systems were Family Educational Rights and Privacy Act compliant, password protected, and inaccessible by people outside of the university. OneDrive included two-tier login requirements (i.e., username, password, and text verification code). Edthena was only accessible with an active account as an

administrator, which was one of the responsible parties for this study. The system could only be accessed using a university-sponsored account. Other than signed consent forms, no paper files were retained. City University of Seattle required data to be securely stored for a period of 5 years then permanently destroyed; this practice was adhered to as part of this research study.

Quantitative Analysis Results

The pre- and post-survey data were composed of a series of five Likert-type items that represented questions combined into a single composite score or variable. Likert scale data were then analyzed as interval data (i.e., the mean to measure central tendency). See Table 1 for pre- and post-central tendency averages (i.e., mean), associated standard deviation, variance, and change comparison for each research question.

Table 1*Culturally Responsive Teaching Pre- and Post-Analysis*

Survey question	Presurvey			Postsurvey			% change
	<i>M</i>	<i>SD</i>	σ^2	<i>M</i>	<i>SD</i>	σ^2	
1. Do you think you manage your own social-emotional response to student diversity in the classroom well?	4.33	0.75	0.55	4.16	0.37	0.13	-0.17
2. Do you think you provide feedback in emotionally intelligent ways so students are able to take it in and act on it?	4.16	1.06	1.13	4.16	1.21	1.47	0.00 (no change)
3. Do you think you provide ways to orchestrate learning so it builds student's brain power in culturally congruent ways?	3.5	0.76	0.58	4.0	1	1	+0.50
4. Do you think you provide ways for your students to understand both your verbal and nonverbal communication effectively and accurately?	4.16	1.06	1.13	4.33	1.10	1.22	+0.17
5. Do you think you set up rituals and routines that reinforce self-directed learning and academic integrity?	4.33	1.10	1.22	4.0	1.15	1.33	-0.33
6. Do you feel you are properly prepared as a new teacher to foster culturally responsive teaching in the classroom?	3.83	0.69	0.47	4.0	1	1	+0.17

I surmised the following observations when contrasting pre- and post-survey data points based on the survey questions. In Survey Question 1, when candidates considered how they managed their own social-emotional response to student diversity in the classroom and the impact on their role as a teacher, the pre- and post-survey data suggested they overestimated their ability than they previously thought (-0.17). In the second survey question, when asked how they provided feedback in emotionally intelligent ways for students to receive the feedback and act on it, candidates maintained the same level of confidence in being able to deliver this pedagogy to

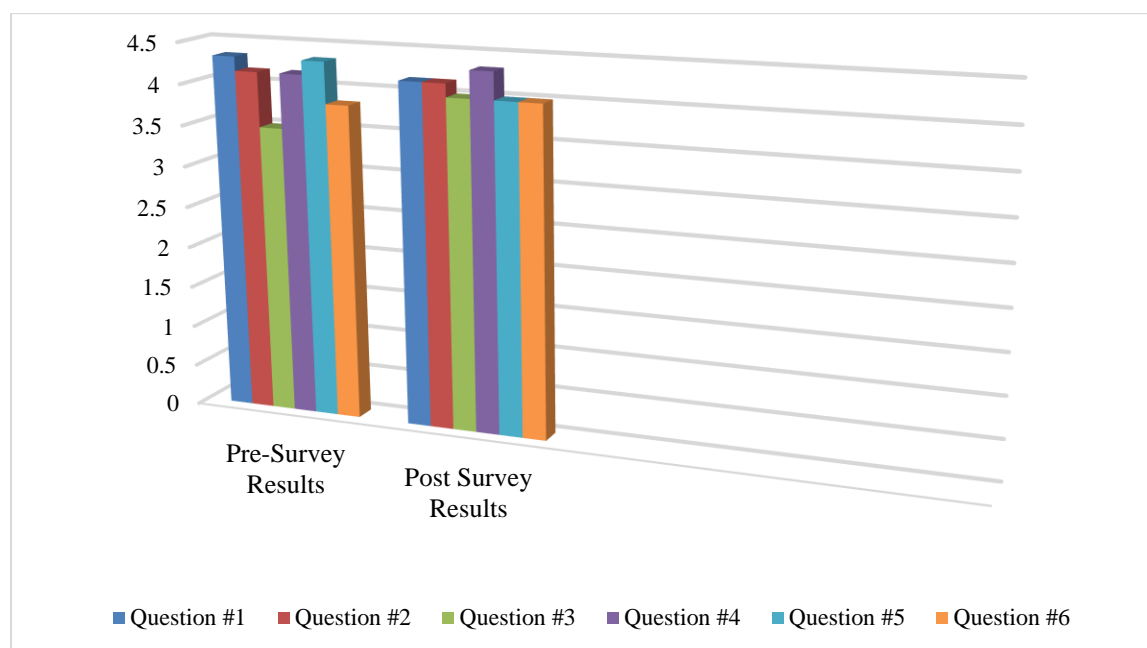
students in a classroom (0.0; i.e., no change). Data for the second survey question could be seen as somewhat of an outlier as there was no noticeable change from pre- to post-survey results. The third survey question, which asked the level in which a teacher provides ways to orchestrate learning so it builds student's brain power in culturally congruent ways, showed a significant increase (+.50) in the way candidates thought their performance was after receiving feedback of their performance and viewing the performances of their peers.

In the fourth survey question, candidates were asked to rate their ability in how they provided ways for your students to understand both verbal and nonverbal communication effectively and accurately, the pre- and post-survey data suggested they were more confident (+.17) after engaging in video observations and real-time, peer reflective analysis. This trend changed in the fifth survey question in which the new teacher candidates were asked to rate themselves on their abilities to set up rituals and routines that reinforced self-directed learning and academic integrity; the data suggested the study participants seemed to overestimate their knowledge and ability before the session as opposed to during their post session experiences (-.33).

In the final survey question, when the study participants were asked if they believed they were properly prepared as a new teacher to foster culturally responsive teaching in the classroom, the data suggested the study participants exhibited an overall increase in confidence after engaging in the video observations and real-time, peer reflective analysis experience from analyzing the pre- and post-survey results (+.17). Overall, these data points displayed a change in five of six questions, which suggested a change in awareness of culturally responsive teaching performance levels before and after engaging in video observations and real-time, peer reflective analysis involving culturally responsive teaching pedagogy (see Figure 1)

Figure 1

Change in Awareness of Culturally Responsive Teaching Performance Levels



Qualitative Analysis Results

I used a general qualitative inquiry design for the qualitative data analysis. This design allowed for greater flexibility in terms of sample size and data collection procedures and focused solely on research participants' discussions and written feedback as multiple forms of data to complement the quantitative data. Each study participant was given a list of reflective prompts in a digital document at each of the three research sessions. The purpose of these prompts was to facilitate reflective analysis after all attendees viewed each study participant's video of their teaching performance.

After participants observed each video, they reflected on what they observed and documented their observations in their reflective prompt document. Then, participants engaged in a verbal discussion with the rest of the group regarding the notes they assembled. These

prompts encompassed all culturally responsive themes under the (a) awareness, (b) learning partnerships, (c) information processing, and (d) community building areas of Hammond and Jackson's (2015) four areas of culturally responsive teaching pedagogy.

Each preservice teacher provided qualitative commentary based on their experiences after they successfully completed the research session. The qualitative data I collected from these prompts showed how participants gained awareness of their initial perceptions of delivering and addressing culturally responsive teaching in a classroom setting and if those changed due to their video observations and real-time peer reflective analysis. When consuming the qualitative data, it was important to do so within specific themes and using the culturally responsive teaching strands of the ready 4 rigor framework (Hammond & Jackson, 2015) was most appropriate within this research. The culturally responsive themes I identified from this research were: Awareness, Learning Partnerships, and Community of Learners.

Culturally Responsive Theme: Awareness

Hammond and Jackson (2015) described the culturally responsive teaching practice theme of awareness as teachers being able to "locate and acknowledge their own sociopolitical position, sharpen and tune their cultural lens, and learn to manage their own social-emotional response to student diversity" (p.18).

Student Participant 1 said:

I truly appreciated having the opportunity to view another educator's instruction. It was beneficial to view a different population of students, content and teaching style/classroom management. The feedback was insightful and hearing the different perspectives was valuable. Thank you so much for including me in your work.

The comments Participant 1 made about the feedback they received could be seen as an acknowledgement concerning the cultural lens of their professional teaching perspective in addition to a thirst for broadening their interpretation of culturally and linguistically diverse students (Hammond & Jackson, 2015). Participant 3 and 4 both suggested that reflection and verbal feedback were insightful in sharpening their cultural lens to deliver more effective culturally responsive teaching. For example, Student Participant 3 said:

I valued this session because it allowed me the opportunity to reflect on my culturally responsive lens. I like being able to look at the video and dissect areas of things I was doing well, and things I need to work on. Using peers does not feel as critical as it would from a coach or principal.

Student Participant 4 said:

I feel that the written and verbal feedback was very useful. It helped me understand culturally responsive teaching better. I appreciate the specific examples of ways to improve. The experience has helped me see my teaching through a wider lens. I feel that seeing other examples of teaching, even at a much different grade level, has improved my understanding of culturally responsive teaching.

Culturally Responsive Theme: Learning Partnerships

Hammond and Jackson (2015) described the culturally responsive teaching practice theme of learning partnerships as teachers being able to “establish an authentic connection with students that builds mutual trust and respect, leveraging the trust bond to help students rise to higher expectations, giving feedback in emotionally intelligent ways so students are able to take

it in and act on it, and holding students to high standards while offering new intellectual challenges” (p.19).

Student Participant 2 stated:

The peer reflection session was so useful in identifying what culturally responsive teaching actually looks like. I really appreciated being able to see my fellow new teachers in a wide range of classroom settings. I could see myself in their shoes and so the reflection process was just as valuable when watching their sessions and hearing the comments of others. I think this sort of activity should be included in our teaching training program.

Therefore, Participant 2 suggested they valued being able to reimagine the student and teacher relationship in a culturally responsive manner as they looked to understand a wide range of classroom settings that could support diverse student learning (Hammond & Jackson, 2015).

Culturally Responsive Theme: Community of Learners

Hammond and Jackson (2015) described the culturally responsive teaching practice theme of community of learners as teachers being able to “integrate universal cultural elements and themes into the classroom, use cultural practices and orientations to create a socially and intellectually safe space, and setting up rituals and routines that reinforce self-directed learning and academic identity” (p. 20).

Student Participant 5 stated:

This session was great. I really benefited from being able to look at my teaching and break apart the things I am doing well and the things that need improvement. I was able to notice specific things that I could do better which I think is the true benefit of sessions like this. We all have some ideas about what we can do better, but it is hard to get

specific and pinpoint the most important areas that need improvement without opportunities like this session. I think having a session like this regularly where teachers can assist each other and provide honest feedback is essential to making culturally responsive teaching more widespread.

Finally, Student Participant 6 stated:

The use of visual elements in previous lesson reflection to identify each of the figures and shapes, and the vocabulary related to each of the shapes. The way the teacher responds to her students when requesting feedback, when correcting or rewording questions to gain better responses. I see now how I could have facilitated a better small group or think–pair–share activity when better individual engagement by downsizing the student group.

Lastly, Participants 5 and 6 both identified specific aspects of teaching delivery (i.e., breaking lessons or activities into smaller parts, a rewording question to gain better responses) that could be improved to deliver an environment that is intellectually and social safe for learning with strong culturally responsive practices (Hammond & Jackson, 2015).

Conclusion

The qualitative data demonstrated how each participant gained session levels of culturally responsive teaching insights postresearch involving awareness, learning partnerships, and community building practices (Hammond & Jackson, 2015). These results both highlight and compliment the quantitative pre- and post-survey data. With these results, it is more likely broadening this research using video observations and real-time peer reflective analysis would to lead to similar outcomes in other university teacher preparatory programs as discussed in Chapter 3.

Chapter 3: Findings

Summary of Findings

The purpose of this study was to gain a better understanding of how the theory-to-practice gap can be narrowed when new teacher candidates observe themselves—and their peers—delivering culturally responsive teaching in a classroom setting via video observation followed by real-time critical feedback of performance. I collected and analyzed quantitative pre- and post-self-evaluative surveys from video observation sessions and personal written reflections. Overall, these data points displayed a change in five of six self-evaluative questions, which suggested a change in participants' awareness of culturally responsive teaching performance levels before and after engaging in video observations and real-time, peer reflective analysis involving culturally responsive teaching pedagogy. Secondly, I gathered and analyzed qualitative session feedback data that showed how participants gained awareness of their initial perceptions of delivering and addressing culturally responsive teaching in a classroom setting due to their video observations and real-time peer reflective analysis.

Discussion

In current education studies, reflection has been viewed as a key component in a teacher's professional development. For instance, Beauchamp (2015) stated the issue of identity in teacher development was central to the intention of reflection. Griffiths and Tann (1992) furthered this argument when they stated a student teacher's reflection on their personal and professional concerns was central, along with reflection on their own practice. Korthagen and Vasalos (2005) stated professional development might deteriorate if a teacher did not become accustomed to systematic reflection. Furthermore, Korthagen and Vaslos emphasized structured reflection was essential in promoting sound professional posture.

According to Korthagen et al. (2001), structured reflection supported development of a growth mindset—one's ability to continue to develop professionally based on internal self-directed learning. Thus, many researchers have focused on how to support reflection through a more structured avenue (e.g., making use of videos, journals, and portfolios; Gelfuso & Dennis, 2014). Moreover, with such supportive tools, new teacher candidates can perceive and assess their experiences to understand their beliefs and assumptions underlying the experiences (Körkkö et al., 2016).

Quantitative Results Support Conceptual Framework

Data from the quantitative self-evaluative surveys that were collected before and after video observation sessions suggested new teacher candidates perceived and assessed their performance levels (Körkkö et al., 2016) of culturally responsive teaching thus suggesting a narrowing of the theory-to-practice gap. For example, in the first survey question, when candidates were asked to consider how they managed their own social-emotional response to student diversity in the classroom and the impact on their role as a teacher, the pre- and post-survey data suggested they overall overestimated their ability more than they previously thought (-0.17). This trend continued in the fifth survey question in which the new teacher candidates were asked to rate themselves on their abilities to set up rituals and routines that reinforced self-directed learning and academic integrity; the data suggested the study participants again seemed to overestimate their knowledge and ability before the session as opposed to during their post session experiences (-.33).

As previously discussed, a person's mental experience is shaped by the physical actions they perform and the actions performed around them. Macrine and Fugate's (2022) meta-analysis found the use of dynamic visualizations were more fruitful for learning outcomes,

especially when animations were representational, realistic, and procedural, and motor knowledge was involved. Therefore, the lack of a representational model for these culturally responsive teaching practices could be one area in which performance levels were overestimated.

The third survey question asked the level in which the teacher provided ways to orchestrate learning to build a student's brain power in culturally congruent ways (+.50); candidates were then asked to rate their ability (i.e., the fourth question) in how they provided ways for students to understand both verbal and nonverbal communication effectively and accurately (+.17). Finally, candidates were asked if they believed they were properly prepared as a new teacher to foster culturally responsive teaching in the classroom (+.17). The data suggested the study participants exhibited an overall increase in confidence after receiving feedback about their performance and viewing their peers' performances. This finding is consistent with Macrine and Fugate's (2022) research, who explained that observing demonstration of a skill and then imitating or executing it allows for a higher quality more meaningful experience than only reading or hearing an explanation. This finding is an example not only of embodied cognitive effects but also of theory-to-practice gap.

Lastly, the second survey question asked how teachers believed they provided feedback in emotionally intelligent ways for students to receive such feedback and act on it—candidates maintained the same level of confidence in being able to deliver this pedagogy to students in a classroom (0.0; i.e., no change). Data for the second survey question could be seen as somewhat of an outlier as there was no noticeable change from pre- to post-survey results. However, the data could also be consumed through a lens of adult learning. For example, one may wonder if the candidates understood what emotional intelligence looked like or if they understood how personal and professional experiences in emotional regulation and instruction should inform

practice and how to deliver it in an effective manner. These issues are all important theoretical concepts of adult learning in which experiential learning reinforces the need for social skills, adaptable competencies, and continuous learning based on socioeconomic conditions rather than subject-based knowledge (Usher et al., 1997). These factors could have certainly influenced the second survey question in addition to a simple explanation of candidates not observing enough examples within the video sessions to inform a change in performance belief status.

Qualitative Results Support Culturally Responsive Framework

The qualitative feedback from each participant provided interesting culturally responsive revelations. Participant 1 demonstrated they gained a change in their perspective of viewing peers thus sharpening their cultural lens. This example falls under the awareness strand of the ready for rigor framework (Hammond & Jackson, 2015). Within this strand, teachers engaging in culturally responsive teaching pedagogy need to acknowledge their own sociopolitical position, sharpen their cultural lens, and learn to manage their own social-emotional response to student diversity (Hammond & Jackson, 2015).

Conversely, the qualitative statement from Participant 2 was most useful in showing context for the ready for rigor framework strand of learning partnerships (Hammond & Jackson, 2015). The comments from Participant 2 revealed they benefitted from engaging their fellow peers, trusting their feedback, and building on their experiences. This example aligns with teachers' abilities to build capacity to establish authentic connections, leverage the trust bond to help students rise to higher expectations, and demonstrate ability to give feedback in emotionally intelligent ways so students are able to take it in and act on it (Hammond & Jackson, 2015).

Statements from Participants 3 and 4 also aligned with the awareness strand from the ready for rigor framework as they revealed they benefitted from improving their culturally

responsive lens. Being able to sharpen and tune a cultural lens is important for teachers in being aware of the role that schools play in perpetuating and challenging inequities (Hammond & Jackson, 2015). In the final analysis, Participants 5 and 6 both provided qualitative commentary that aligned with the ready for rigor framework strand of community building. Participant 5 talked about benefiting from breaking their instruction apart to gain pedagogical improvement and Participant 6 reiterated the value of how a teacher responds to students in an effort to gain more effective formative feedback. These elements are an important part of creating an environment that communicates care, support, and belonging in ways students can understand (Hammond & Jackson, 2015).

Support for Training Interventions

The research framework outlined in this study involved video observation and real-time peer reflective analysis of performance levels using culturally responsive teaching pedagogy; this framework offers teacher candidates an opportunity to supplement their traditional field-based school placements in many unique situations. For example, public schools across the United States have continued to struggle to recruit and retain special education teachers (Brown et al., 2015; Cross, 2017; Mason-Williams, 2015; Sutchter et al., 2016), which affects not only the education K–12 students with disabilities receive but also the availability of student teaching placements for preservice candidates in teacher preparation programs. Furthermore, the student teaching experience is a critical part of any teacher preparation program as it provides opportunities for preservice teachers to gain hands-on experience, develop relationships with mentor teachers (Brown et al., 2015), and receive direct feedback on their teaching (Leko et al., 2015). Therefore, video observations and real-time peer reflective analysis of culturally responsive teaching performance can function as a supplement for traditional field-based face-to-

face teaching placements. Even preservice teachers living in more remote locations or in districts with more demographically homogeneous student populations could use this model to practice delivering culturally responsive teaching pedagogy and benefit from interaction with peers from other geographical locations via video conference streaming. The research described in this study could potentially provide teacher candidates with opportunities to observe high-quality culturally responsive teaching pedagogy and gain additional experience using evidence-based practices even in the absence of such elements in their traditional field placements.

Implications

The qualitative data revealed how each participant gained levels of culturally responsive teaching insights involving awareness, learning partnerships, and community building practices (Hammond & Jackson, 2015). With these results, one can surmise increasing the scale and frequency of this research using video observations and real-time peer reflective analysis is highly likely to lead to similar outcomes in other university teacher preparatory programs. In doing so, teacher preparatory programs can engage in cultural responsiveness of new teachers entering the workforce.

As Hammond and Jackson (2015) stated, “cultural responsiveness is what informs our practice so we can make better teaching choices for eliciting, engaging, motivating, supporting, and expanding the intellectual capacity of all our students” (p. 2). Furthermore, Hammond and Jackson (2015) described every student’s brain as being reliant on understanding the implications of culture when they stated:

The brain uses cultural information to turn everyday happenings into meaningful events.

If we want to help dependent learners do higher order thinking and problem solving, then

we have to access their brain's cognitive structures to deliver culturally responsive instruction. (p. 22)

This statement emphasizes how new teachers entering the workforce can impact students regardless of socioeconomic forces beyond their control. This concept is particularly relevant in the midst of efforts from U.S. state governors and state legislatures planning to defund diversity, equity, and inclusion (DEI) efforts at their respective state supported universities. For example, in the United States, the governor of Florida announced plans in 2023 to defund diversity, equity and inclusion initiatives across higher education organizations in his state (Moody, 2023). The Florida governor even announced support for a new model of legislation to defund DEI initiatives in all higher education settings. Furthermore, several U.S. states have displayed eagerness to follow in Florida's footsteps on targeting DEI within their university settings (Moody, 2023).

These actions only highlight the need to create and support processes and structures for new teachers to be knowledgeable about culturally responsive teaching and to be armed with the experiential skills to deliver culturally responsive teaching pedagogy in the classroom. To ensure new teachers are prepared to be culturally responsive, university teacher preparatory programs must bridge the theory-to-practice gap and start with embracing innovative methods like video observations and real-time, peer reflective analysis.

Recommendations for Future Research

Based on the results of the current study, further research is suggested to investigate larger participant populations involving video observations and real-time peer reflective analysis of culturally responsive teaching. It may also be meaningful to investigate new teacher candidates' perceptions of their culturally responsive teaching in technology-supported learning

environments after receiving real time, peer reflective analysis and professional development, and encountering technical problems.

In addition, I also suggest a deeper examination of the following concepts: (a) how video observation and direct peer reflective analysis and interaction may activate embodied cognitive effects in teacher preparatory programs for new teacher candidates, specifically in the practice of culturally responsive teaching practices and (b) how video game-based training scenarios, combined video observations, and real-time peer reflective analysis using culturally responsive teaching pedagogy can improve overall learning and readiness—similar to research performed by the U.S. Army for overall military personnel learning and readiness (Rivera, 2011).

Conclusion

In this study, I explored how using online video observations and real-time peer reflective analysis of new teacher candidates demonstrated increased awareness of culturally responsive teaching performance levels. Using a quantitative and general qualitative inquiry design approach to analyze pre- and post-survey responses and reflective discussions, the data suggested preservice teacher candidates gained a deeper understanding of their ability to deliver culturally responsive teaching pedagogy. Data revealed participants' video observations and real-time peer reflective analysis of teaching situations with their peers fostered participants' heightened self-awareness levels.

Moreover, the findings suggested participants reconstructed their prior knowledge based on new impressions from activities and the environment in this research. By participating in the responsive environment, they (a) reflected and reevaluated their roles as new teachers, (b) revisited previous personal experiences and teaching practices, and (c) examined previous experiences and practices by applying an expanded knowledge of culturally responsive teaching

pedagogy. Furthermore, they connected these understandings to pedagogical situations and transformed how they thought about teachers' performance levels when applying culturally responsive teaching pedagogy.

Additionally, participants depicted strong new perspectives on pedagogy and articulated new teaching awareness. These revelations aligned with Loughran and Berry's (2005) claim that simply providing a person with information would not lead to transformation; however, explicit modeling (e.g., video) was necessary for teacher educators to create a more interactive, critical, and safe learning environment (i.e., theory-to-practice). This finding also advanced the literature that has recognized modeling as a better alternative to traditional methods of teaching in higher education (Lunenberg et al., 2007) to ensure students go beyond the theory approach to practice responsive teaching. The current study also involved the ready 4 rigor framework by Hammond and Jackson (2015) as a framework for evaluating the level of performance and delivery of culturally responsive teaching. This model and the actions of the research performed in this study (i.e., video observations and real-time, peer reflective analysis) could help new teacher candidates become authentic, dynamic, successful teachers of culturally diverse learning environments.

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APPENDIX A
RECRUITMENT LETTER

Teacher Candidates,

You are invited to participate in a research study following the EDU 309/ETC 507/ETC 540 course to observe and reflect on our interactions with students and fellow staff through the use of video. You will use short recordings of yourself in your classroom with your student teaching. You will assess yourself in that video, specifically through an equity lens, and participate in a group analysis with your peers. Using the skills gained from the prior University coursework, you and your peers will identify delivering and addressing culturally responsive teaching in K-12 classrooms. The study facilitator and principal researcher, Adrian Cortes, will guide discussions to support reflection and growth.

Your participation is entirely voluntary, and this activity will have no effect on your grade or your enrollment in the program at City University of Seattle. Teacher candidates (study participants) will have access both to free counseling on the City University of Seattle campus as well as affinity groups provided by the teacher certification program. City University of Seattle has a dedicated City University Counseling Center that is staffed with trained and license professionals should you need these services. All individual identity information will be strictly confidential and you will be able to end your participation at any time if you so choose.

The data of this research may uncover ways video analysis and peer reflection can be framed to explore delivering and addressing culturally responsive teaching within a classroom as a means to support both theory and practice in a practical setting within a university teacher preparatory program. Your involvement in this research will be limited to you recording one short 5-10-minute video of yourself performing student-teaching, completing a short pre-reflective survey, one zoom videoconference meeting, with participating peers of your site location (Renton, Vancouver, Tacoma, or Edmonds), that will last for around 1-2 hours and finally a short post-reflective survey upon completion. Please contact the principal researcher, Adrian Cortes, with interest in participating in the study.

Thank you for considering participating in this study!

Adrian E. Cortes, M.Ed, Ed.D (candidate)

[REDACTED]

[REDACTED]

Associate Teacher and Principal Researcher

City University of Seattle

School of Education and Leadership

APPENDIX B
INFORMED CONSENT



School/Division of Education and Leadership

CITYU RESEARCH PARTICIPANT INFORMED CONSENT

I, , agree to participate in the following research project to be conducted by Adrian Cortes, ☒ faculty member or ☐ student, in the Teacher Certification Program. I understand this research study has been approved by the City University of Seattle Institutional Review Board.

I acknowledge that I have received a copy of this consent form, signed by all persons involved. I further acknowledge that I have been provided an overview of the research protocol as well as a detailed explanation of the informed consent process.

Title of Project:

Observing Equitable Practice: Using Online Video Observations and Peer Reflection to Teach and Address Culturally Responsive Teaching (CRT) in a University Teacher Preparatory Program for Pre-Service Teachers

Name and Title of Researcher(s):

Adrian Cortes, M.Ed., Ed.D (candidate) Associate Teacher, School of Education and Leadership

For Faculty Researcher(s):

Department: Teacher Certification Programs

Telephone:

Email:

Immediate Supervisor: Dr. Bryan Carter Program Director and Dr. Vicki Butler, Dean, School of Education and Leadership

For Student Researcher(s):

Faculty Supervisor:

Department:

Telephone:

E-mail:

Program Coordinator (or Program Director):

Dr. Bryan Carter

Sponsor, if any:

Purpose of Study:

The objective of the study will be to see how the individual perceptions of study participants change (if any) from how they see themselves delivering and addressing Culturally Responsive Teaching (CRT) within a classroom setting. Simply put, do they have higher confidence (or lower) of their abilities to deliver and address Culturally Responsive Teaching versus seeing themselves on video and receiving peer reflection on their performances within a classroom. The data of this research may uncover ways video analysis and peer reflection can be framed to explore delivering and addressing Culturally Responsive Teaching (CRT) within a classroom as a means to support both theory and practice in a practical setting within a university teacher preparatory program.

Research Participation:

I understand I am being asked to participate in this study in one or more of the following ways (the checked options below apply):

- ☒ Respond to in-person and/or telephone Interview questions;
- ☒ Answer written questionnaire(s);
- ☒ Participate in other data gathering activities, specifically, recording classroom interactions;
- ☐ Other, specifically, _____.

I further understand that my involvement is voluntary and I may refuse to participate or withdraw my participation at any time without negative consequences. I have been advised that I may request a copy of the final research study report. Should I request a copy, I understand I may be asked to pay the costs of photocopying and mailing.

Confidentiality

I understand that participation is confidential to the limits of applicable privacy laws. No one except the faculty researcher or student researcher, his/her supervisor and Program Coordinator (or Program Director) will be allowed to view any information or data collected whether by questionnaire, interview and/or other means. If the student researcher's cooperating classroom teacher will also have access to raw data, the following box will be checked. ☐ All data (the questionnaires, audio/video tapes, typed records of the interview, interview notes, informed consent forms, computer discs, any backup of computer discs and any other storage devices) are kept locked and password protected by the researcher. The research data will be stored for 5 years (5 years or more if required by local regulations). At the end of that time all data of whatever nature will be permanently destroyed. The published results of the study will contain data from which no individual participant can be identified.

Signatures

I have carefully reviewed and understand this consent form. I understand the description of the research protocol and consent process provided to me by the researcher. My signature on this form indicates that I understand to my satisfaction the information provided to me about my participation in this research project. My signature also indicates that I have been apprised of the potential risks involved in my participation. Lastly, my signature indicates that I agree to participate as a research subject.

My consent to participate does not waive my legal rights nor release the researchers, sponsors, and/or City University of Seattle from their legal and professional responsibilities with respect to this research. I understand I am free to withdraw from this research project at any time. I further understand that I may ask for clarification or new information throughout my participation at any time during this research.

Participant's Name: _____
Please Print

Participant's Signature: _____ Date: _____

Researcher's Name: Adrian Cortes
Please Print

Researcher's Signature: _____ Date: _____

If I have any questions about this research, I have been advised to contact the researcher and/or his/her supervisor, as listed on page one of this consent form.

Should I have any concerns about the way I have been treated as a research participant, I may contact the following individual(s):

Dr. Vicki Butler, Dean for the School of Education and Leadership, Program Coordinator (and/or Program Director), City University of Seattle, at

(address, direct phone line and CityU email address).

8/2011

APPENDIX C

QUANTITATIVE PRE- AND POST-SURVEY QUESTIONS

Quantitative Pre-and Post-Survey Questions (Based on Zaretta Hammond's Read for Rigor Framework, 2015) :

(Using a Likert Scale, 1-Disagree, 2-Slightly Disagree, 3-No Opinion, 4-Slightly Agree, 5-Agree)

1. Do you think you manage your own social-emotional response to student diversity in the classroom well?
2. Do you think you provide feedback in emotionally intelligent ways so students are able to take it in and act on it?
3. Do you think you provide ways to orchestrate learning so it builds student's brain power in culturally congruent ways?
4. Do you think you provide ways for your students to understand both your verbal and nonverbal communication effectively and accurately?
5. Do you think you set up rituals and routines that reinforce self-directed learning and academic integrity?
6. Do you feel you are properly prepared as a new teacher to foster culturally responsive teaching in the classroom?

APPENDIX D

QUALITATIVE REFLECTION QUESTIONS

Copy of Qualitative Reflective Questions (Based on Zaretta Hammond's Read for Rigor Framework, 2015) :

Please take 5-7 minutes to write a reflective response(s) to one or more of the questions below that you feel were applicable to the peer video you observed.

1. Do you see evidence that the teacher understands and acknowledges their own sociopolitical position?
2. Do you see evidence that the teacher is making an effort to sharpen and tune their cultural lens?
3. Do you see evidence that the teacher is making an effort to learn to manage their own social-emotional response to student diversity?
4. Do you see evidence that the teacher is making an effort to make an authentic connection with students that builds mutual trust and respect?
5. Do you see evidence that the teacher is making an effort to leverage the trust bond to help students rise to higher expectations?
6. Do you see evidence that the teacher is making an effort to give feedback in emotionally intelligent ways so students are able to take it in and act on it?
7. Do you see evidence that the teacher is making an effort to hold students to high standards while offering them new intellectual challenges?
8. Do you see evidence that the teacher understands how culture impacts the brain's information processing?
9. Do you see evidence that the teacher is making an effort to orchestrate learning so it builds student's brain power in culturally congruent ways?
10. Do you see evidence that the teacher understands brain-based information processing strategies common to oral cultures?
11. Do you see evidence that the teacher is making an effort to integrate universal cultural elements and themes into the classroom?
12. Do you see evidence that the teacher is making an effort to use cultural practices and orientations to create a socially and intellectual safe space?
13. Do you see evidence that the teacher has set up rituals and routines that reinforce self-directed learning and academic identity?

APPENDIX E
IRB APPROVAL

IRB Approval #2221006

GEORGE FOX UNIVERSITY HSRC INITIAL REVIEW QUESTIONNAIRE

Title: Observing Equitable Practice: Using Online Video Observations and Peer Reflection to Teach and Address culturally responsive teaching (CRT) in a University Teacher Preparatory Program for Pre-Service Teachers

Principal Researcher(s): Adrian E. Cortes

Date application completed:

{The researcher needs to complete the information above on this page.}

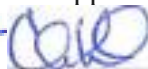
COMMITTEE FINDING:

J (1) The proposed research makes adequate provision for safeguarding the health and dignity of the subjects and is therefore approved.

__ (2) Due to the assessment of risk being questionable or being subject to change, the research must be periodically reviewed by the HSRC on a basis throughout the course of the research or until otherwise notified. This requires resubmission of this form, with updated information, for each periodic review.

__ (3) The proposed research evidences some unnecessary risk to participants and therefore must be revised to remedy the following specific area(s) on noncompliance:

__ (4) The proposed research contains serious and potentially damaging risks to subjects and is therefore not approved.

8/9/27  Chair or designated member Date