Research Article

Engaging preservice teachers with culturally relevant microteaching activity: A university professor's experience and perception

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There is an increase in the students' cultural diversity in schools in Canada, making it essential for the teacher education programs to prepare pre-service teachers to better support all students in culturally inclusive classrooms. Using self-study approach to action research, this study investigated how a university professor in Canada engaged in a reflective practice about designing a culturally relevant microteaching assignment in an Educational Psychology course as a context for preparing culturally responsive pre-service teachers. Data collected included course syllabus, microteaching assignment instructions and lesson plans, designed peer feedback form, and professor's class PowerPoint presentations, and personal reflective reports/journal. The findings indicated how: (1) the professor embedded culturally relevant and responsive pedagogies into the microteaching assignment, (2) pre-service teachers actively engaged in the designed culturally centred practices as a context for their professional development, and (3) multidimensional feedback was essential in supporting the pre-service teachers' thinking about addressing issues of cultural diversity. The major findings, lessons learned by the professor, implications, limitations of the study with suggestions for future practice and research are discussed.

Keywords: Action research, culturally responsive and relevant pedagogy, microteaching; pre-service teachers, reflective practice, self-study

1. Introduction

Classrooms in Canada are increasingly populated by students who share diverse racial, ethnic, cultural and linguistic backgrounds. The presence of students with diverse cultural backgrounds in the same classroom creates multiple benefits for learning, such as opportunities for an increase in students' critical thinking, creativity, problem solving skills and cognitive abilities (e.g., by sharing multiple perspectives), and development of social skills (e.g., by engaging in inter-ethnic, racial, and cultural communications) (Gay, 2018). These benefits notwithstanding, classroom cultural diversity poses challenges to both students (especially international, immigrants whose first language is not English, and Indigenous) and teachers. For example, culturally diverse students tend to experience challenges navigating new learning environments that are different from previous learning experiences, not connected to their backgrounds and lived experiences leading to lack of motivation and engagement in classrooms (Anyichie et al., 2023a, 2023b; Butler et al., 2017).

Furthermore, educators, especially those whose race, ethnic and cultural backgrounds are different from their students, feel unprepared to teach culturally diverse students in a multicultural classroom due to lack of the knowledge and required skills in designing a culturally relevant classroom context (Lambeth & Smith 2016). For example, Siwatu (2011) noted that such educators struggle with the integration of cultural relevance and multiple perspectives in their classrooms. This lack of integration explains the mismatch between the classroom content and students' home culture that impacts ethnically and culturally diverse students' achievement (Gay, 2018). Also, the Canadian education curricula content that is based on the European colonial

traditions and culture often leaves indigenous, racialized and minority students questioning the relevance and meaningfulness of some of the classroom learning content. To better support all students in our today's multicultural classrooms, there is a great need to decolonize our curricula content and pedagogical approaches (e.g., by creating opportunities to integrate all cultures' ways of learning and being) to meaningfully benefit our diverse student population (Charles, 2019). Therefore, targeted efforts are needed to prepare pre-service teachers and support in-service teachers in their abilities to foster learning for culturally diverse students.

Research, especially from the United States of America, documents efforts in preparing culturally responsive K-12 pre-service teachers as well as supporting the in-service educators to be aware of the role of culture on learning processes (e.g., Chang & Viesca, 2022). However, there is a dearth of research examining the preparation of culturally relevant educators within Canadian contexts, especially through the implementation of microteaching technique across different courses. Thus, there is need for research on how university educators in Canada are preparing pre-service teachers to effectively teach in today's multicultural classrooms by engaging them in culturally relevant microteaching activity.

1.1. Culturally relevant and responsive pedagogy

This study builds on asset-based culturally inspired frameworks especially culturally relevant pedagogy (Ladson-Billings, 1995, 2021) and culturally responsive teaching (Gay, 2010; Villegas & Lucas, 2002). Culturally relevant pedagogy emphasizes the need for supporting all students' academic achievement, affirming their cultural identity, and developing their critical consciousness (Ladson-Billings, 1995, 2021). Culturally responsive pedagogy defines the approach to teaching that utilizes ethnically diverse students' cultural backgrounds, prior knowledge and lived experiences to make their learning experience relevant and meaningful (Gay, 2018). Although, these two frameworks are developed from different philosophical paradigms, they share a common goal. Specifically, due to how they both foreground the impact of students' sociocultural contexts, interests and experiences on their learning, they are loosely infused in this paper as culturally relevant and responsive pedagogy [CRRP]. CRRP suggests some instructional practices, including knowledge of students' background (e.g., by visiting their communities and homes to understand their cultures and lived experiences), adjusting curricula (e.g., by including ideas from student cultures and lived experiences in the lesson planning and delivery), establishing cross-cultural communications (e.g., by offering opportunities for the students in the class to share their personal, cultural and lived experiences; Gay, 2013, 2018), supporting students' critical consciousness (e.g., having discussions about issues of racism, social injustice), fostering cultural competence (e.g., sharing ideas about theirs' and other's cultural identity in the class), and upholding high expectations of students' academic success (Ladson-Billing, 2021). Research shows that this approach to teaching is beneficial to student learning with the understanding that students are motivated to engage in learning materials, contents, and contexts they found to be relevant to them (Anyichie, 2018, 2024; Anyichie & Butler, 2017, 2018, 2023a, 2023b; Anyichie et al., 2023b; Aronson & Laughter, 2016; Gray et al., 2020).

Culturally responsive and relevant teachers recognize, acknowledge and celebrate their students' values, languages, lived experiences, ways of knowing and being. They are aware of how their own cultural bias impacts their teaching beliefs and practices. They deliberately design classroom learning environments (e.g., instructional materials, learning activities and assignments) that honour students' cultures, ways of knowing and lived experiences (Brown, 2007; Villegas & Lucas, 2002). Such teachers involve families and communities in the education of their children. For instance, they deliberately select culturally relevant text and reading materials that mirror students' experiences, cultures, identities, and aspirations (Anyichie, 2018, 2024; Anyichie & Butler, 2017). In such classrooms, students not only see themselves in the reading materials but engage with them in ways that increase their deeper learning and sustain their intrinsic motivation (Christ & Sharma, 2018; Gay, 2018). Consequently, CRRP are critical in bridging the gap between classroom content and students' lived experience while creating an equitable learning

environment for all students. Pre-service teachers could be better supported if education faculty members deliberately integrate CRRPs in their classrooms (Hutchison & McAlister-Shields, 2020). This integration that does not happen often could explain why the pre-service teachers feel unprepared to teach in culturally diverse classrooms.

Currently, there is an increased discussion around decolonizing educational curricula (Charles, 2019). Decolonization involves the recognition of how euro-centric colonial practices have shaped the current education system, challenging the contemporary education to reflect students' cultural heritage in the teaching and learning processes, and empowering the students to develop their present-day life (Battiste, 2013). Based on the relationship between students' cultural identity and learning (e.g., Altugan, 2015), concerted effort is needed to adjust the colonial curricula content and pedagogical practices, address issues of power and social injustice, and better support pre-service teachers' thinking about validating and honouring students' experiences. Pre-service teachers will gain more in their teacher education programs if assisted to appreciate their students' ways of being (e.g., by understanding the need for the formation of the whole person than emphasis on intellect), and knowing (e.g., how people learn and make sense of things across cultures); and demonstration of knowledge (e.g., oral presentation, story telling, writing). Exposing pre-service teachers to the practices of CRRP (e.g., different effective ways of connecting classroom learning activities to students' background) will be a great asset in their training. Some of these practices that foster students' autonomy have potential to engage them in regulation of their learning process. For example, when students have opportunity to choose how to showcase their learning, they feel empowered to connect their learning experiences with their cultural values and beliefs (Anyichie, 2018, 2024; Anyichie et al., 2023a, 2023b). Microteaching technique lends itself to achieving this goal.

1.2. Microteaching and pre-service teachers

Microteaching describes a teacher development and training technique that allows pre-service teachers to improve their teaching skills by engaging in a real teaching session with opportunities of receiving constructive feedback from their peers or audience (Remesh, 2013; Zhou & Xu, 2017). Microteaching has been identified as a context for teachers' professional development since it provides educators, especially pre-service teachers, with opportunities to teaching practice. Most of the research around microteaching has been conducted in the context of cultural education or curriculum related courses and less in educational psychology.

Educational psychology is considered as a critical component of the teacher education program. It exposes the pre-service teachers to theories (e.g., of human development, learning and motivation) and how to apply research-based practices into their classrooms. However, there are less research on how to prepare future teachers on the application of psychological principles and practices to create equitable learning experiences in culturally inclusive classrooms. Consequently, there is a clarion call for teaching and research in educational psychology to consider the role of culture, race and ethnicity in its inquiries (King et al., 2018; Kumar & DeCuir-Gunby, 2023). For instance, understanding the role of culture on the development of the human behaviour, mental processes and abilities, including students' reasoning and construction of knowledge (Vygotsky, 1978), learning engagement and motivation (Anyichie, 2024; Anyichie & Butler, 2018; King et al., 2018; King & McInerney, 2016) will foster pre-service teachers' interest to integrate culturally relevant and responsive teaching practices in their classes to support students' learning processes (Anyichie, 2018, 2024).

However, many educators experience challenge with culturizing educational psychology contents, including connecting learning theories, and contents (e.g., assignments) with the everyday realities of culturally diverse learners. In addition, less research has examined the use of microteaching assignments in pre-service teachers' educational psychology classrooms as a context for engaging them with the design and facilitation of educational psychological topics among culturally diverse students. The current study aims at closing these gaps by examining how a university professor designed culturally situated microteaching activities within an educational

psychology course, as a professional learning context for improving his practice while preparing culturally relevant and responsive pre-service teachers.

2. Purpose and Research Questions

The purpose of this study was to examine a university professor's experience and practices of preparing culturally relevant and responsive pre-service teachers. Specifically, it aimed at exploring the professor's perceptions of designing and implementing a culturally relevant microteaching assignment in his pre-service teachers' educational psychology course.

This study was guided by the following questions:

RQ 1) How did the professor design and implement a culturally relevant microteaching assignment in an educational psychology course?

RQ 2) What were the professor's experiences and perceived impact of the culturally relevant microteaching assignments on the pre-service teachers?

RQ 3) How are the professor's experiences shaping his future teaching practices?

3. Method

3.1. Research Design

This study employed a self-study qualitative method through action research (Feldman et al, 2004). Self-study is chosen because the study is developed to investigate the researcher's own professional experiences with a view to improving his instructional practices and better support his students (Pithouse-Morgan, 2022). The decision for action research was made because it allows educators to engage in a self-reflective enquiry while questioning, gathering information about, and improving, their practices and their students' learning (Marshall & Rossman, 2016). Therefore, self-study approach to action research is the most appropriate methodology for this study examining a professor's self-reflection of experimentation with integrating cultural relevance into his educational psychology course to improve his practice and better support his pre-service teachers to become culturally relevant educators.

For the current study, the author played the dual role of an instructor and researcher. Building on the action research process, he engaged in a systematic and critical inquiry of his instructional practices (i.e., experiences of designing and implementing a culturally relevant microteaching), understanding students' experiences of engaging in that assignment, and acting on those findings to improve his future teaching (Feldman, 2007).

3.2. Study Context and Procedure

This research was conducted, during the COVID-19 period, in a Faculty of Education at a University in a rural setting of a small city in Canada. The university is described as a small liberal education institution with predominantly undergraduate programs and a few selected graduate programs. The university's teacher education program was dominated by white middle class female instructors and students. Part of the vision of the School of Education was to support students' skills in critical reflection and understanding of the importance of equity through theory and practice. However, at the time of this study, there was no specific course on CRRP in the Faculty of Education. The Bachelor of Education students were expected to complete 4 practica throughout their program. There are variations in the duration of each practicum including the first (5 field trips), second (70 hrs), third (6 weeks), and fourth (12 weeks).

The professor who self-identified as an African Man has a doctorate degree in education. He has over 18 years of teaching experience across diverse educational settings (e.g., K-12, university), and geographic locations (e.g., national and international). In addition to his 6 years of teaching in a high school abroad, he has also taught educational psychology courses at Teacher Education programs in Canada for over 4 years before teaching in the institution where this study was conducted. Prior to this study, the professor has been supporting in-service elementary school teachers in designing practices to support culturally diverse students. His experiences working

with the in-service teachers (e.g., their lack of preparations and knowledge about making classroom learning activities relevant to the students' cultural backgrounds), and the need to bridge the gap between theory and practices in educational psychology courses led to this study. Therefore, he decided to extend the same principles and ideas about supporting the in-service teachers to the pre-service teachers. In this study, he was experimenting on weaving cultural relevance in his online educational psychology courses to facilitate pre-service teachers' thinking about supporting culturally diverse students in their future classes and improve his professional practice. The goal of his educational psychology course was to assist pre-service teachers develop an understanding of the teaching- learning process from a psychological perspective through the examination of core principles of educational psychology, including theories of development, diversity, learning, motivation, process of teaching, classroom management, and assessment. This 3-credit hour, 12-week course was taught once a week during the Fall semester of 2020/2021 academic year.

Since this study involved a reflective practice of the practitioner-researcher, ethical consent was not required. Nevertheless, effort was made to maintain the anonymity of any person (e.g., critical friends) who helped to ensure objectivity through comments and feedback on the notes and analysis.

3.2.1. Microteaching assignment

On the first day of the course, the professor explained the expectations of the three major assignments in the course as written in the syllabus, including the microteaching assignment. The pre-service teachers were invited to sign-up in small groups (e.g., 3 - 4 members) to any week of their choice, based on their interest on the major themes/topics of that week as detailed in the syllabus. They were asked to complete the sign-up by the third week of classes. Each group were expected to collaboratively design and teach/facilitate a 40-minutes learning activity within the class time during their chosen and assigned week.

The pre-service teachers were provided with guiding questions to support their attention to the focus and expectations of the microteaching assignment. They were asked to submit their lesson plan, including designed learning activity and discussion questions, and the role of each group member, to the professor a week ahead of their scheduled date of presentation. In addition, they were encouraged to foster active participation of their peers during the class discussions, such as engaging them in deep reflections on different ideas raised in the readings with attention to connecting theory to practice. Each microteaching session is followed by a feedback session. This microteaching assignment worths 20% of the final mark and all the group members received the same mark.

3.3. Data Collection

This study utilized data from two sessions of an educational psychology course over a semester in 2020/2021 academic year. Data collected included the professor's documents in relation to the microteaching assignment such as: (1) the course syllabus to examine the microteaching assignment instructions, (2) microteaching lesson plan guide/template to see the integrated practices, (3) designed peer feedback form and the professor's class PowerPoint presentations to gather information about implementation of the assignment, and (4) his personal reflective journal to understand the experiences of his designing and implementing the assignment. Since the professor was focusing mainly on trying out how to design culturally relevant microteaching in his undergraduate pre-service teachers' classes, the students' specific data are not included in this study.

3.4. Data Coding and Analysis

The data from this study was coded and analyzed using a combination of inductive and deductive thematic analysis (Terry et al., 2017). On the one hand, deductive analysis was performed by coding identified practices based on the recommendation of CRRP described above. On the other

hand, inductive analysis was performed by identifying possible themes from the reflective notes on his professional experiences. The reflective notes articulated his various experiences about designing and implementing the microteaching assignments, including his perceptions about how the pre-service teachers are taking up those opportunities, and decisions about his professional development. To ensure rigour and trustworthiness, experiences in the journal were shared, and feedback sought from critical friends, that is colleagues, who provided checks (Samaras, 2011). For example, there was emphasis on the possible bias that could emerge based on the researcher's previous experiences working with educators about supporting culturally diverse students.

To answer the first research question about the integration of CRRPs into the microteaching assignment, documents (e.g., course syllabus, microteaching assignment instructions, lesson plan guide/template, peer feedback excel form, class PowerPoint presentations and his feedback to the students) were deductively coded for designed practices (i.e., by highlighting integrated practices based on CRRP described above), and implementation (i.e., by noting the available support for the pre-service teachers' microteaching assignment). Then, to address research questions two and three about the professor's experiences and perceived impact of the designed activity on the pre-service teachers (RQ 2), and his professional development (RQ 3), his personal journal reflections were inductively coded, and analyzed. For example, the journal was read and coded for his perceived impacts of the assignment on pre-service teachers as well as notes made for future changes.

4. Findings and Discussions

This section highlights and discusses the major findings of this study based on the three research questions.

4.1. Designing a Culturally Relevant Microteaching Assignment

The examination of the course syllabus and assignment instructions showed how the professor wove cultural relevance into the major focus of the microteaching assignment (see Table 1). For example, the guiding questions for the assignment invited each group of the pre-service teachers to reflect on how the class assigned readings for their chosen week/topics is relevant to their lived experiences and cultures. Some of the specific questions included "Can you see the experiences of your family members, friends, culture in this chapter or/and article?" and "How does it connect to your personal experiences, and addressing issues of cultural diversity?" This finding shows how the professor was helping the pre-service teachers to connect the classroom reading materials to their lived experiences. By exposing the pre-service teachers to this assignment, the professor aimed at supporting their learning transfer in terms of their experiencing how to design culturally relevant activities for their future students.

Table 1
Microteaching assignment focus

Focus	Guiding Questions
Experience and Examples	"What relationships can you establish between this reading, your peers' experiences and your own experiences attending school? Can you see the experiences of your family members, friends, culture in this chapter or/and article? What relationships can you establish between this chapter/ article and your current place of work (if applicable)? Provide two examples or tell a story that brings a concept or core idea of the reading to live"
Discussion Questions and Learning Activity	"What two or three questions would you like to discuss with the group after reading the book chapter/article? Any learning activity (e.g., case study, game etc.) to show how the topic of the reading can be applied to the classroom context? How does it connect to your personal experiences, and addressing issues of cultural diversity?"

4.2. Modelling Culturally Relevant and Responsive Classrooms

To set the tone for the implementation of the microteaching assignment, the professor facilitated a brainstorming activity with the pre-service teachers around issues of cultural diversity in the classrooms. For example, he facilitated conversations about the benefits and challenges of classroom cultural diversity. Some of the benefits highlighted include creating a shared space for sharing multiple perspectives, developing multicultural awareness and intercultural competence, navigating cross-cultural diversity, increasing interpersonal and intercultural communications, fostering students' critical thinking, problem solving skills, engagement and achievement. For the challenges, there were discussions around the issues of misconceptions of ideas across cultures, language barriers, mismatch between learning activities and students' cultural backgrounds.

Furthermore, he presented the pre-service teachers with some guiding questions for their reflection on the issues of culture and diversity (Figure 1). He also allowed them some time to keep track of their thinking in their reflective journals. Following the students' personal reflections, he facilitated conversations about the impacts of educators' backgrounds, cultures and lived experiences on their teaching believes and practices. For example, the professor shared examples of how his own sociocultural background, that emphasizes collaborative learning, shapes his implementation of group discussions and collaborative assignments in his classes. In addition, he highlighted the challenges of the dichotomy between the current homogenous teaching force (i.e., mainly white middle class) and the student population (i.e., culturally and linguistically diverse) in Canada. Following the brainstorming activity, the pre-service teachers watched a video "Systemic Racism Explained"[1] and participated in a Zoom breakout rooms (4-5 students per room) where they shared their thoughts about the video they watched and how they hope to address issues of racism in their future classes (Figure 2). Finally, each breakout room shared their collective findings with the general class (Lesson Plan).

Figure 1
Culture and Diversity: Reflection and Free Write

Culture and Diversity: Reflection and Free Write
- How is your culture/race shaping your learning and teaching practice?
- What are some of the values and assumptions of your culture that shape your learning experiences?
- What are your privileges [white] and in what ways is it exemplified in education?
- What assumptions, bias and prejudices do you have of people of other race/color?
- What and how can you learn from your peers/ students'race/ culture?
- What kinds of diversity do you see in our class?

Figure 2
Systemic Racism

Systemic Racism

- **Personal (1.5mins) and Small groups reflection [10mins]**
  - How do you feel about systemic racism?
  - Any lived experience of racism (e.g., yourself or someone you know, and how does it impact your (their) learning?
  - How can you as a teacher address issues of racism in your schools and classrooms?
  - How can you support students being affected by racism?
  - **NB: Get ready to share with the whole class**

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[1] Systemic Racism Explained: https://ytbe.app/go/MfzKRJql

Through this activity, as shown from some selected class slides, the professor modelled how to weave culturally relevant approaches in classrooms, such as supporting students' cultural competence (e.g., by inviting the pre-service teachers to think about their cultures and how they may be shaping their learning experiences and teaching beliefs), critical consciousness (e.g., by inviting them to question their privileges and bias, and discussing sensitive topics like racism), and decolonizing educational psychology (e.g., by evaluating the curricula content through diverse cultural lenses). By deliberately involving the pre-service teachers in these kinds of discussions, he supported their awareness of some of the challenges of culturally diverse learners, while modelling how the pre-service teachers could create culturally sensitive and inclusive classrooms for all learners. Pre-service teachers' engagement in these CRRPs corroborates previous research that have highlighted the impact of modeling and scaffolding of teaching and learning strategies in the classroom context (Anyichie & Butler, 2015; Anyichie & Onyedike, 2012). Specifically, it lends itself to other research that have called for supporting educators' cultural competence and critical consciousness in a bid to address the issues of social injustice and inequity against racialized students (Ladson-Billings, 2021).

4.3. Professor's Experiences and Perceptions

4.3.1. Pre-service teachers' engagement with culturally centred practices

Reflecting on the pre-service teachers' microteaching plan and teaching, the researcher noted their efforts to integrate attention to cultural diversity in their lesson design and teaching. For example, each group gave examples of the relevance of their topics based on their lived experiences. Many groups engaged their peers (i.e., audience) in a small group discussion by asking them to share ideas about ways in which they may have experienced the presented topics. Some of the conversations were shallow (i.e., not going deeper in stimulating culturally relevant ways of being and knowing), and needed to highlight how human thinking is situated in context. However, their final reflection piece indicated efforts to engage in a higher-level discussion. For example, a group talked about how they will decolonize cognitive views of learning by drawing attention to how the cognition of children from certain cultures could develop earlier than others based on sociocultural and environmental factors (e.g., by integrating real-life problem-solving case situations in their classes).

This finding shows that the microteaching assignment created an engaging context for the pre-service teachers' thinking about designing and facilitating culturally meaningful learning activities. This result is associated with the assignment instructions that invited them to choose a relevant topic for their teaching, and guiding questions that asked them to connect their topics to "... your personal experiences and addressing issues of cultural diversity…". This result extends previous studies about using microteaching to prepare pre-service teachers for teaching multicultural classrooms (Mensah, 2011) by drawing attention to how teacher practices (e.g., guiding questions, choice provisions) facilitated their teaching and learning engagement (Anyichie et al., 2023a). Also, it extends previous findings by showing examples of how culturally relevant microteaching could be infused into an Education Psychology course, and how such integrated contexts shape students' engagement in self-regulated of learning (Anyichie, 2018; Anyichie & Butler, 2018, 2023b; Anyichie et al., 2023a).

These noted benefits of culturally relevant microteaching notwithstanding, the professor experienced some challenges with facilitating pre-service teachers' deeper thinking about infusing CRRP into their teaching. Result findings show that they struggled with providing multiple perspectives about connecting their teaching content to different cultures. Some of them explained that they will not be teaching in a multicultural school since they live in a white dominant rural neighbourhood. This finding shows how students' cultural identity, social context, and lived experiences shape their beliefs about teaching and learning practices (Altugan, 2015; Pajares, 1992).

4.3.2. Multidimensional feedback

Examination of the professor's lesson plan and reflection notes documented evidence of multiple opportunities created for the pre-service teachers' reflective teaching through multidimensional feedback sessions. For example, after each group's microteaching, he invited the rest of the class members to offer feedback to the group by completing an online spreadsheet. He encouraged the pre-service teachers to individually offer feedback to each group by completing an online excel spreadsheet based on "commendation" (i.e., what the group did so well) and "recommendation" (i.e., what the group could improve upon). All the members of the class have access to the spreadsheet and sees each group's feedback.

During the individualized feedback, the professor invited the presenting group members to self-assess their experiences of their group's presentation. After that, he asked them some clarification questions in relation to the expectations of the microteaching (e.g., content, attention to cultural diversity), and offered general oral feedback to the group. Next, they were asked to submit a group reflection of their experience of the microteaching, within three days, while addressing the following questions: "What were your experiences designing this learning? Did everything go as planned? What worked and what didn't work? How can you improve on the recommendations from your peers? Based on your experiences from the group design to implementation, what can you do differently in the future to facilitate effective learning?". Again, the professor provided these feedback opportunities and prompts to support their reflective practice.

Overall, the professor perceived a noticeable incremental improvements overtime in the quality of the pre-service teachers' microteaching and the way they were thinking about cultural diversity. For instance, later groups tried to explain their topics using relevant examples from their lives (e.g., while presenting on learning theories, they shared their experiences of how they learn). This improvement was also reflected on the feedback process. For example, the length of feedback on the recommendation section of the feedback spreadsheet (e.g., relating the topic to their personal experience) decreased for the later groups such that the last group received less recommendation feedback compared to the earlier groups. This finding was not surprising since all the pre-service teachers had access to the group feedback online, and subsequent groups seemed to have integrated that feedback in their own teaching. These findings could be linked to the opportunity the professor provided for the multidimensional feedback and reflections.

However, most of the generated peer feedback for each group were mainly on the teaching practices (e.g., having opportunities for group discussion than lecturing, keeping to allotted time) than on the teaching content and attention to issues of cultural diversity. This finding could be explained by the open-ended structure of the feedback (i.e., commendation and recommendation). Including targeted feedback prompts about CRRPs (e.g., how did the group connect their teaching to students' lived experiences, cultures) could increase the quality of the feedback.

Furthermore, each group's microteaching final report shows potential shift in the pre-service teachers' thinking in how they reflected on what they learned and planned to improve upon in their future teaching. For example, a group talked about making their teaching content relevant to their students by inviting the students to talk about their lived experiences of the topic of discussion. Another group highlighted expanding their thoughts on how they could connect the content of their class teaching across different cultures in their classrooms. This perceived shift could be linked to the in-class conversations about issues of cultural diversity, assignment instructions, opportunities for multiple layers of feedback, and engagement in the group collaborative design and final written reflections. These findings add to the previous research on the impact of reflective practice on pre-service teachers' professional development (Fuertes-Camacho et. al. 2021; Körkkö et al., 2016), feedback on students' self-regulated learning (Butler & Winne, 1995; Chou & Zou, 2020), and how these practices could be facilitated within the context of a culturally relevant assignment in Educational Psychology class.

4.4. Major Lesson Learned: Professor's Experiences and Future Instructional Practices

The findings of this study show the potentials of culturally relevant microteaching as an authentic context for facilitating pre-service teachers' thinking about designing classroom assignments that are situated in students' sociocultural context (i.e., by connecting class content to their students' cultural backgrounds and lived experiences). However, since the class was fairly homogenous with white pre-service teachers with less experience of studying in a culturally diverse classroom, it was difficult for them imagining specific ways to address potential challenges in a culturally diverse classroom.

Moving forward, the professor plans to support their critical design thinking about culturally relevant and responsive instructional practices by constructing a case scenario of a multicultural classroom with detailed descriptions of diverse students' personal characteristics and strengths (e.g., lived experience about immigration, being bilingual, knowledge of a particular topic or skill) and challenges (e.g., language barriers, experience of racism) in that context. He believes that such a case study will trigger pre-service teachers' metacognitive awareness of issues of diversity in that learning context and support their thinking about appropriate practices to integrate in their microteaching lesson design, facilitation, and feedback processes. He also planned to support pre-service teachers' thinking about decolonization of their lesson contents by introducing a journal reflection assignment where the pre-service teachers would critically think about the possible similarities and differences of classroom topics across cultures, and deliberately reflect on how those topics or concepts are operationalized in their and others' cultures. The outcome of the journal assignment has potentials of enriching their designing cultural relevance into microteaching assignment. He hopes that these shifts in his practice will offer pre-service teachers more opportunities to visualize a real culturally diverse classroom and critically generate relevant approaches to supporting their design thinking processes.

Additionally, future research could examine how colonial views and orientations are infused in the current academic curriculum, and possible ways of decolonizing the curriculum, including in Educational Psychology courses with attention to making it relevant to culturally diverse students. Finally, as self-regulated learning literature emphasizes the importance of complex task (e.g., microteaching activity) and formative assessment (e.g., self-assessment, peer and teacher feedback) on students' development of their regulatory skills (Butler et al., 2017; Perry, 2013), future research could explore how culturally relevant microteaching activities that integrated these practices may be a context for promoting pre-service teachers' culturally appropriate regulation of learning.

4.5. Implications of Findings

The findings of this study have some educational implications. It shows how a university professor facilitated pre-service teachers' thinking about designing a relevant classroom assignment by engaging them in an authentic culturally relevant microteaching assignment. Specifically, it contributes to the teaching practice by demonstrating how instructors in teacher education programs can design a learning environment for pre-service teachers to engage them in designing learning environments that support all students, especially those who do not share similar cultural background with them. Similarly, it demonstrates how instructional resources (e.g., microteaching guiding questions and template) and supports (e.g., multidimensional feedback, modelling and scaffolding of reflective practice) are helpful in fostering educators' reflective teaching process and their professional development of culturally relevant pedagogy. These findings invite educators, especially in educational psychology to consider integrating ideas from CRRP in their courses to help pre-service teachers design equitable learning opportunities that will address the achievement gaps between racialized and majority students.

The findings of this study highlight the important of self-study approach to action research design in helping educators study their instructional practices. It aided the professor in reflecting on his teaching practices, capturing pre-service teachers' design thinking about culturally relevant activities in the context of their facilitation, and relating the pre-service teachers' perceived shifts in

thinking to the requirements and integrated practices in the assignment. This action research and reflection could serve as a springboard for educators (both pre-service and in-service teachers) who are interested in studying their own practices towards supporting culturally diverse learners in their classrooms.

4.6. Limitations and Future Directions

This study reported only findings from a university professor's experiences and perceptions of enacted CRRPs. Since the researcher is also the professor referred in this study, there are possible bias in the design and analysis of this study. Nevertheless, the involvement of the critical friends addressed possible issues of bias and ensuring trustworthiness of the findings. Furthermore, the findings reported here do not include the pre-service teachers' direct report of their personal experiences and perceptions of CRRPs due to ethics protocols. Therefore, this study does not claim to generalize the findings, especially the potential association between the professor's practice and perceived shift in the ways the pre-service teachers are thinking about their future teaching practices. However, the lessons learned from this study is shaping current larger research that integrates students' voices and experiences of culturally relevant authentic assignments in a teacher education program. Future research can involve more professors and their pre-service teachers as well as control group to confirm the findings of this study.

5. Conclusion

This qualitative self-study method that employed an action research design examined a university professor's practices, efforts and experiences in preparing culturally responsive and relevant pre-service teachers in his regular Educational Psychology class. The findings showed how he designed a culturally relevant microteaching assignment for the pre-service teachers. He also offered scaffolds for the pre-service teachers' cultural competence, critical consciousness and decolonizing of curriculum content as part of the ways of becoming culturally responsive teachers. Also, the findings showed how the culturally relevant microteaching assignment, together with the supports offered by the professor (e.g., modelling, scaffolding, multidimensional feedback), could be responsible for the pre-service teachers' thinking about how to design and facilitate culturally relevant instructional activities in their future teaching. Specifically, there were suggested improvements in the quality of the pre-service teachers' microteaching practices and thinking about addressing the issues of classroom cultural diversity in their future lesson planning. Based on the professor's experiences and practices in this study, he developed some action plans for his future classes (e.g., supporting pre-service teachers' critical design thinking by offering them a case scenario that mirrors current multicultural classroom context).

Finally, the current study concludes that CRRPs could be woven into microteaching assignment in educational psychology courses as a context for preparing pre-service teachers to effectively teach in culturally diverse classrooms. Engaging pre-service teachers in real life microteaching sessions with opportunities for multiple feedback sessions has potentials for their professional development. Also, these practices hold benefits for supporting pre-service teachers' development of self-regulated learning strategies.

References

Altugan, A. S. (2015). The relationship between cultural identity and learning. *Procedia-social and Behavioural Sciences, 186,* 1159–1162. https://doi.org/10.1016/j.sbspro.2015.04.161

Anyichie, A. C. (2018). Supporting all learners' engagement in a multicultural classroom using a culturally responsive self-regulated learning framework (Publication no. 68089) [Doctoral dissertation, University of British Columbia]. UBC Theses and Dissertations. https://doi.org/10.14288/1.0375773

Anyichie, A. C. (2024). *Self-regulated learning and culturally responsive pedagogy: An integrated approach to fostering all learner's engagement and motivation*. Rowman &Littlefield.

Anyichie, A. C., & Butler, D. L. (2015, May 30–June 3). *Implications of supporting the development of self-regulated learning through modelling and scaffolding* [Poster presentation]. 42nd Annual Conference of the Canadian Society for the Study, Ottawa, ON, Canada.

Anyichie, A. C., & Butler, D. L. (2017, April 27–May 1). *A culturally responsive self-regulated learning framework* [Paper presentation]. American Educational Research Association 98th Annual Meeting, San Antonio, TX, United States.

Anyichie, A. C., & Butler, D. L. (2018, April 13–17). *Culturally responsive teaching and self-regulated learning: An integrated approach to supporting engagement in inquiry-based learning* [Paper presentation]. American Educational Research Association 99th Annual Meeting, New York, NY, United States.

Anyichie, A. C., & Butler, D. L. (2023a). Examining culturally diverse learners' motivation and engagement processes as situated in a context of a complex task. *Frontiers in Education, 8,* 1041946. https://doi.org/10.3389/feduc.2023.1041946

Anyichie, A. C., & Butler, D. L. (2023b). A pedagogical approach to fostering culturally diverse learners' engagement in self-regulated learning. *British Journal of Teacher Education and Pedagogy, 2(2),* 1–16. https://doi.org/10.32996/bjtep.2023.2.2.1

Anyichie, A. C., & Onyedike, C. C. (2012). Effects of self-instructional learning strategy on secondary school students' academic achievement in solving mathematical word problems in Nigeria. *African Research Review: An International Multidisciplinary Journal, Ethiopia, 6(27),* 302–323. https://doi.org/10.4314/afrrev.v6i4.21

Anyichie, A. C., Butler, D. L., & Nashon, S. M. (2023a). Exploring teacher practices for enhancing student engagement in culturally diverse classrooms. *Journal of Pedagogical Research, 7(5),* 183–207. https://doi.org/10.33902/JPR.202322739

Anyichie, A. C., Butler, D. L., Perry, N. E., & Nashon, S. M. (2023b). Examining classroom contexts in support of culturally diverse learners' engagement: An integration of self-regulated learning and culturally responsive pedagogical practices. *Frontline Learning Research, 11(1),* 1–39. https://doi.org/10.14786/flr.v11i1.1115

Aronson, B., & Laughter, J. (2016). The theory and practice of culturally relevant education: A synthesis of research across content areas. *Review of Educational Research, 86(1),* 163–206. https://doi.org/10.3102/0034654315582066

Battiste, M. (2013). *Decolonizing education: Nouringshing the learning spirit*. Purich.

Brown, M. R. (2007). Educating all students: Creating culturally responsive teachers, classrooms, and schools. *Intervention in School and Clinic, 43(1),* 57–62. http://doi.org/10.1177/10534512070430010801

Butler, D. L., & Winne, P. H. (1995). Feedback and self-regulated learning: A theoretical synthesis. *Review of Educational Research, 65(3),* 245–281.

Butler, D. L., Schnellert, L., & Perry, N. E. (2017). *Developing self-regulating learners*. Pearson.

Chang, W. C., & Viesca, K. M. (2022). Preparing teachers for culturally responsive/relevant pedagogy (CRP): A critical review of research. *Teachers College Record, 124(2),* 197–224. https://doi.org/10.1177/01614681221086676

Charles, E. (2019). Decolonizing the curriculum. *Insights: The UKSG Journal, 32(1),* 24. https://doi.org/10.1629/uksg.475

Chou, CY., Zou, NB. (2020). An analysis of internal and external feedback in self-regulated learning activities mediated by self-regulated learning tools and open learner models. *International Journal of Educational Technology in Higher Education, 17,* Article 55. https://doi.org/10.1186/s41239-020-00233-y

Christ, T., & Sharma, S. A. (2018). Searching for mirrors: Preservice teachers' journey toward more culturally relevant pedagogy. *Reading Horizons: A Journal of Literacy and Language Arts, 57(1),* Article 5.

Feldman, A. (2007). Teachers, responsibility and action research. *Educational Action Research 15(2),* 239–252. https://doi.org/10.1080/09650790701314809

Feldman, A., Paugh, P., & Mills, G. (2004). Self-study through action research. In J. J. Loughran, M. L. Hamilton, V. K. LaBoskey, & T. Russell (Eds.), *International handbook of self-study of teaching and teacher education practices* (pp. 943–977). Springer. https://doi.org/10.1007/978-1-4020-6545-3_24

Fuertes-Camacho, M.T., Dulsat-Ortiz, C., & Álvarez-Cánovas, I. (2021). Reflective practice in times of Covid-19: A tool to improve education for sustainable development in pre-service teacher training. *Sustainability, 13*, 6261. https://doi.org/10.3390/su13116261

Gay, G. (2010). *Culturally responsive teaching: Theory, resaerch and practice*. Teachers College Press.

Gay, G. (2013). Teaching to and through cultural diversity. *Curriculum Inquiry, 43*(1), 48–70. http://doi.org/10.1111/curi.12002

Gay, G. (2018). *Culturally responsive teaching: Theory, research, and practice*. Teachers College Press.

Gray, D. L., McElveen, T. L., Green, B. P., & Btyant, L. H. (2020). Engaging black and Latinx students through communal learning opportunities: A relevance intervention for middle schoolers in STEM elective classroom. *Contemporary Educational Psychology, 60*, Article 101833. https://doi.org/10.1016/j.cedpsych.2019.101833

Hutchison, L. & McAlister-Shields, L. (2020). Culturally responsive teaching: Its application in higher education environments. *Education Sciences, 10*(5), 124. https://doi.org/10.3390/educsci10050124

King, R. B., & McInerney, D. M. (2016). Culturalizing motivation research in educational psychology. *British Journal of Educational Psychology, 86*(1), 1–7. https://doi.org/10.1111/bjep.12106

King, R. B., McInerney, D. M., & Pitliya, R. J. (2018). Envisioning a culturally imaginative educational psychology. *Educational Psychology Review, 30*, 1031–1065.

Körkkö, M., Kyrö-Ämmälä, O., & Turunen, T. (2016). Professional development through reflection in teacher education. *Teaching and Teacher Education, 55*, 198–206. https://doi.org/10.1016/j.tate.2016.01.014

Kumar, R., & DeCuir-Gunby, J. (2023). What is the role of race in educational psychology? A review of research in Educational Psychologist. *Educational Psychologist, 58*(1), 1-17.https://doi.org/10.1080/00461520.2022.2137804

Ladson-Billings, G. (1995). Toward a theory of culturally relevant pedagogy. *American Educational Research Journal, 32*(3), 465–491. http://doi.org/10.3102/00028312032003465

Ladson-Billings, G. (2021). I'm here for the hard re-set: Post pandemic pedagogy to preserve our culture. *Equity & Excellence in Education, 54*(1), 68–78. https://doi.org/10.1080/10665684.2020.1863883

Lambeth, D. T., & Smith, A. M. (2016). Pre-service teachers' perceptions of culturally responsive teacher preparation. *Journal of Negro Education, 85*(1), 46–58. https://doi.org/10.7709/jnegroeducation.85.1.0046

Marshall, C & Rossman, G. B. (2016). *Designing qualitative research*. Sage.

Mensah, F. M. (2011). A case for culturally relevant teaching in science education and lessons learned for teacher education. *Journal of Negro Education, 80*(3), 296–309.

Pajares, F. M. (1992). Teachers' beliefs and educational research: Cleaning up a messy construct. *Review of Educational Research, 62*(3), 307–332. https://doi.org/10.3102/0034654306200330

Perry, N. E. (2013). Classroom processes that support self-regulation in young children. *British Journal of Educational Psychology, 10*, 45–68.

Pithouse-Morgan. (2022). Self-study in teaching and teacher education: characteristics and contributions. *Teaching and Teacher Education, 119*, 103880. https://doi.org/10.1016/j.tate.2022.103880

Remesh, A. (2013). Microteaching, an efficient technique for learning effective teaching. *Journal of Research in Medical Sciences, 18*(2), 158–163.

Samaras, A. P. (2011). *Self-study teacher research improving your practice through collaborative inquiry*. Sage.

Siwatu, K. O. (2011). Preservice teachers' culturally responsive teaching self-efficacy-forming experiences: A mixed methods study. *The Journal of Educational Research, 104*(5), 360–369. https://doi.org/10.1080/00220671.2010.487081

Terry, G., Hayfield, N., Clarke, V., & Braun, V. (2017). Thematic analysis. In C. Willig & W. S. Rogers (Eds.), *The Sage handbook of qualitative research in Psychology* (pp. 17–36). Sage. https://doi.org/10.4135/9781526405555.n2

Villegas, A. M., & Lucas, T. (2002). Preparing culturally responsive teachers: Rethinking the curriculum. *Journal of Teacher Education, 53*(1), 20–32. http://doi.org/10.1177/0022487102053001003

Vygotsky, L. S. (1978). *Mind in Society: The development of higher psychological processes.* Harvard University Press.

Zhou, G. & Xu, J. (2017). Microteaching lesson study: An approach to prepare teacher candidates to teach science through inquiry. *International Journal of Education in Mathematics, Science and Technology, 5*(3), 235–247.