Assessing Practice Teachers' Culturally Responsive Teaching: The Role of Gender and Degree Programs in Competence Development

Manuel E. Caingcoy
College of Education, Bukidnon State University, Philippines

Vivian Irish M. Lorenzo
College of Education, Bukidnon State University, Philippines
Alumni Relations Office, Bukidnon State University, Philippines

Iris April L. Ramirez
College of Education, Bukidnon State University, Philippines
Quality Assurance Office, Bukidnon State University, Philippines

Catherine D. Libertad
College of Education, Bukidnon State University, Philippines

Romeo G. Pabiona Jr.
College of Education, Bukidnon State University, Philippines

Ruffie Marie C. Mier
College of Education, Bukidnon State University, Philippines

Abstract

Culturally Responsive Teaching (CRT) weaves together rigor and relevance while it improves student achievement and engagement. The Philippine Department of Education implemented Indigenous People's education to respond to the demands for culturally responsive teaching. Teacher education graduates are expected to articulate the rootedness of education in sociocultural contexts in creating a learning environment that recognizes respect, connectedness, choice, personal relevance, challenges, engagement, authenticity, and effectiveness. Practice teachers need relevant exposure and immersion to fully develop their competence in CRT. This scenario necessitates attention to assessing the competence of 191 practice teachers in CRT, correlating their competence across dimensions, and verifying the role of gender and degree programs in competence development. This investigation provides evidence on the role of gender in competence development toward culturally responsive teaching. Such competence is vital in practice teachers, especially because they are exposed to learners with diverse backgrounds during their teaching internship. This evidence informs supervising instructors in molding practice teachers.

Keywords: competence, culturally responsive teaching, gender, degree program

CRT is about "weaving together rigor and relevance" (Muñiz, 2019, p. 7) and is recognized as a powerful method for improving student achievement and engagement (Byrd, 2016; Norman, 2020). Academics also labeled it "culturally responsive pedagogy" (Brown et al., 2019; Samuels, 2018; Norman, 2020; Martell, 2018), "culturally responsive instruction" (Keehne et al., 2018), and "culturally responsive praxis" (Aronson, 2016), while a few scholars dubbed it "culturally responsive education" (Brown et al., 2019; Alaca, 2017). A few tried to characterize it in professionals by calling them "culturally responsive teachers" (May, 2011; Olson & Rao, 2016). Despite these variations, the term CRT remains dominant in the literature (Leonard et al., 2018; Byrd, 2016; Self, 2016; Siwatu, 2011; Mackay & Strickland, 2018; Crow, 2021), and continues to gain popularity (Muñiz, 2019).

Gay's (2010) characteristics of CRT were among the most adopted ideas by which teachers acknowledge the legitimacy of the cultural heritage of different ethnic groups as legacies that affect students' disposition; build meaningfulness between home and school experiences as well as between academic abstractions and lived sociocultural realities; use a variety of instructional activities that are connected to different learning styles; teach students to know and praise their own and each other's cultural heritage; and incorporate multicultural information, resources, and materials in subjects and skills taught in school.
(Gay 2010, p. 29)

There exist many studies on CRTs that involve in-service teachers, yet, there is a dearth of research in terms of identifying the role of gender and degree programs in competence development among practice teachers. Lambeth et al. (2016) argued that "there is more work to be done in preparing teachers to work with students whose race, culture, and socioeconomic background may be different than the preservice teachers and mentors responsible for teaching students in schools" (Lambeth et al. 2016, p. 46.). There is also much need to investigate CRT in a Philippine context. Studies so far were only focused on culturally responsive curricula (Mercado, 2021), school leadership (Brooks & Brooks, 2018), and cultural identities (Inocian et al., 2020). In parallel, the Department of Education identified four regions that are implementing culturally responsive Indigenous People's education: Northern Mindanao, Soccsksargen, Region XI, and the Cordillera Administrative Region (Department of Education, 2016). Despite the effort, CRT has not been given enough attention in the country.

Bukidnon State University, as a higher education institution, gives high regard to cultural sensitivity in its core values. Its graduates are expected to demonstrate a capability to collaborate or implement initiatives to sustain cultural heritage. These graduates need to demonstrate CRT in planning and delivering a lesson, developing or selecting instructional materials, assessing and facilitating the learning of students. Additionally, the government expects them to articulate the rootedness of education in sociocultural contexts (Commission on Higher Education, 2017). With this aspiration, teacher education graduates need to develop CRT in the practice of the teaching profession. In so doing, they can create a learning environment that recognizes respect and connectedness, choice and personal relevance, challenges, and engagement, and most especially the authenticity and effectiveness of the learning experience (Rhodes, 2016; Ginsberg & Wlodkowski, 2009; Wlodkowski, 2004).

This paper assesses the competence of practice teachers in CRT in a state university in the Philippines. Additionally, it tests the relationship among the subscales or dimensions of CRT, namely, establishing inclusion, developing attitudes, enhancing meanings, and engendering competence. Likewise, it verifies whether gender and degree programs play a role in developing such competence. The results of the study may be used in decision-making and in

conceptualizing an intervention before practice teachers can complete their academic programs.

Literature Review

This research reviewed the literature to shed light on understanding the topics of culturally responsive teacher education and teaching. Richardson (2018) asks this question: Are we adequately preparing practice teachers to circumvent cultural marginality in the classroom? This triggers a continuous conversation on CRT. Muñiz (2019) posited that what we need is now to invest in developing culturally responsive educators by crafting comprehensive professional teaching standards that integrate expectations for CRT. These standards should give a clear and consistent message regarding the knowledge, skills, and mindset to be culturally responsive. A case study examined the learning experiences of practice teachers in modeling CRT in the university context and multicultural education course. It was revealed that the critical and justice-oriented course that modeled CRT activities and behavior helped practice teachers transform and extend their conceptual knowledge of CRT. It allowed them to critically reflect and reconstruct prior knowledge and connect these experiences to future teaching practice (Acquah & Szelei, 2018).

Griffin (2011) identified the dispositions to be integrated in preparing practice teachers to be culturally responsive. These include sociocultural awareness, affirming attitudes towards all students, the commitment to act as an agent of change, learning about all students, and the use of CRT practices in teacher education programmes. Truscott and Stenhouse (2018) found that teaching dispositions were associated with academic success and cultural competence. These dispositions were associated with the critical consciousness domain to a minimal extent. Specifically, the interrelatedness as a teacher disposition was associated with respect for diversity, authenticity, and generalizability.

From an extensive literature review, New America has developed eight interconnected competencies for culturally responsive teaching. These competencies would serve as a framework for preparing culturally responsive teacher education graduates. Muñiz (2019, pp. 12-15) enumerated them as: 1) "Reflect on one's cultural lens; 2) Recognize and redress bias in the system; 3) Draw on students' culture to share curriculum and instruction; 4) Bring real-world issues into the classroom; 5) Model high expectations for all students; 6) Promote respect for students differences; 7) Collaborate with families and the local community; and 8) Communicate in linguistically and culturally responsive ways."

In a literacy methods course, practice teachers develop culturally relevant teaching behaviors and eventually prepare to work with diverse students (Scott & Venegas, 2019). Self (2018) argued for the need to design and use a clinical simulation in preparing practice teachers for culturally responsive teaching. She conceptualized CRT as being composed of cultural consciousness, cultural competence, and critical reflection. Wilcoxen, Steiner and Bell (2021) articulated the need to strengthen practice teachers' understanding of culturally responsive classrooms through exposure, immersion, and dialogue. These strategies may impact upon their comfort level and their abilities to actualize CRT strategies. French (2005) discovered a minimal contribution of the fieldwork component of teacher education programs to developing practice teachers' competence in CRT. Mackay and Strickland (2018) conducted qualitative research that explored how the interaction between students and teachers takes place and how the former respond to technology-based instructional materials with the aim of connecting to students' lives at home. The results show that involving the students within this CRT approach

by employing student-created videos informs the contribution of both the teacher and the students for connecting home and school contexts.

Mixed methods research revealed that practice teachers feel they were being prepared to acknowledge and integrate culture in the learning process and that they feel confident in their ability to employ culture and contextual teaching. They believe that employing culture will have positive outcomes (Richardson, 2018). Additionally, it was reported that practice teachers learned to use a variety of pedagogical practices to support the academic and social achievement of their students. These created safe spaces outside the classroom where learners can showcase authentic project outputs (Barnes, 2006).

Research has also revealed that practice teachers possess a fair level of readiness in culturally diverse classrooms when they have deep trust in their characteristics and personal attitudes toward diversity, which is considered a strength. Nevertheless, they are challenged with the anxiety of their poor cross-cultural knowledge and language skills (Singh & Akar, 2018). Christ and Sharma (2018) reported four categories of challenges encountered by practice teachers. These include resistance, limited view of culture, lack of knowledge about cultures and identities of students, and lack of opportunities for them to develop critical consciousness. Practice teachers identified criteria of success in CRT, which comprise knowledge about students' culture and identities, attention to various dimensions of text selection, and the use of culturally relevant text selection and pedagogy.

Lew, Gul, and Pecore (2021) found that practice teachers can make meaningful connections between the theory and practices of culturally and linguistically responsive teaching by associating academic concepts with students' life experiences. They were able to use instructional scaffolds and created a safe learning environment. However, they need further improvement on how to incorporate cultural diversity into their lessons, create a challenging but supportive classroom, and develop interactional scaffolds for language development. Thus, practicing CRT is challenging and this is why Howard et al. (2018) offer tools and resources to teachers to curb the popular myths of diverse families, their access to language and literature for teaching social justice, and the use of text that facilitates scaffolding in individual teachers' contexts.

Framework

This research is grounded in the work of Christy Rhodes (2016), whose idea of CRT was patterned after the scholarly works of Wlodkowski (2004) and Ginsberg and Wlodkowski (2009). These scholars raised central questions that gave birth to the motivation framework for culturally responsive teaching:

> How does the learning experience contribute to developing a community of learners who feel respected and connected to one another? How does this learning experience offer meaningful choices and promote personal relevance to contribute to a positive attitude? How does this learning experience engage participants in challenging learning? How does this learning experience create an understanding that participants are becoming more effective in learning the value and perceive as authentic to real world experience?
>
> Ginsberg and Wlodkowski 2009, p. 25)

The first question relates to inclusion, in particular to respect and connectedness. Establishing inclusion involves creating a learning environment in which both teachers and learners feel respected by and connected to one another. The second question concerns attitudes, specifically the choice and personal relevance. The learning experience should develop learners' positive and favorable attitudes. The third question necessitates the engagement of and challenges learners so they themselves can make learning meaningful when their values and perspectives are integrated into their learning. Lastly, the fourth question underlines the importance of competence, wherein learning experiences promote authenticity and effectiveness. Teachers need to create an understanding that learners have learned something in the teaching and learning process and that the learning is applicable to the real world (Rhodes, 2016; Ginsberg & Wlodkowski, 2009; Wlodkowski, 2004). Gay (2010) defined CRT as "using the cultural knowledge, prior experiences, frames of reference, and performance styles of ethnically diverse students to make learning encounters more relevant to and effective for them" (p. 31). This conceptual idea relates to the aforementioned underpinning.
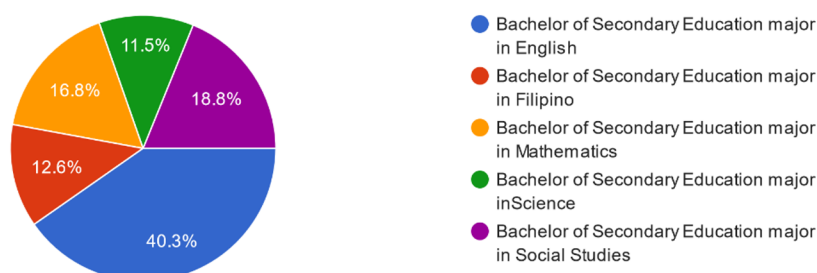
Methodology

This research applied descriptive-correlational and cross-sectional methods to determine the CRT competence of 191 practice teachers across dimensions and the role of gender and degree programs in competency development. Participants were taking the Experiential Learning Courses at the Secondary School Laboratory, College of Education of the Bukidnon State University, Philippines. They were the first graduates of K to 12 programs in basic education, and they will be the first graduates of the new teacher education curriculum in the Philippines in the middle of 2022. Participants were recruited from the five specializations of the Bachelor of Secondary Education, namely, the BSEd Filipino (24), BSEd English (77), BSEd Science (22), BSEd Mathematics (32), and BSEd Social Studies (36). A few of them availed the limited face-to-face internship, while most of these individuals settled for full online and flexible learning modalities of practice teaching.

Figure 1
Representations from Five Degree Programs

Degree Program
191 responses

- Bachelor of Secondary Education major in English
- Bachelor of Secondary Education major in Filipino
- Bachelor of Secondary Education major in Mathematics
- Bachelor of Secondary Education major inScience
- Bachelor of Secondary Education major in Social Studies

11.5% 16.8% 12.6% 18.8% 40.3%

Prior to the data collection, the study secured permission from authorities to conduct the study. With the help of the academic advisers, wide dissemination of the assessment was achieved during training as these advisers facilitated the distribution of the questionnaires. Data were obtained using the 17-item CRT Survey tool developed by Rhodes (2016). It was administered via Google Forms during their redeployment training for in-campus and off-campus internships during the pandemic. The instrument has four dimensions: *establishing inclusion* (7 items),

developing attitudes (3 items), *enhancing meanings* (3 items), and *engendering competence* (4 items). Responses of the participants ranged from 1 (not true to me at all) to 5 (very true to me). Data were processed using IBM SPSS version 22 and analyzed using descriptive and inferential statistics.

Results

To determine whether the measurement used in this research obtained an acceptable level of internal consistency, Cronbach's alpha was run to analyze the psychometric characteristics of the items. The results show that the CRT Survey tool of Rhodes (2016) is reliable. Both the standardized and unstandardized Cronbach's alpha values of .924 and .919, respectively, suggest that the tool can be used to measure the CRT competence of practice teachers. Consequently, it was determined that the CRT surveys can yield consistent results in the Philippine context.

Table 1
Reliability Statistics

Cronbach's Alpha	Cronbach's alpha based on Standardized Items	N of items
.919	.924	17

Table 2
Item-Total Statistics

Items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if item Deleted
Item1	67.1309	68.525	.637	.538	.914
Item2	66.9863	70.121	.541	.441	.916
Item3	67.3613	67.506	.397	.332	.923
Item4	66.8429	68.502	.635	.493	.914
Item5	67.2356	67.160	.594	.473	.914
Item6	67.3770	65.931	.600	.471	.915
Item7	67.1937	66.568	.670	.549	.912
Item8	66.8796	68.349	.662	.506	.913
Item9	67.1204	68.075	.649	.474	.913
Item10	67.0419	67.335	.661	.481	.913
Item11	67.2356	66.760	.589	.443	.915
Item12	67.3141	65.343	.685	.539	.912
Item13	67.0419	68.377	.558	.398	.915
Item14	67.0052	67.616	.697	.580	.912
Item15	67.1623	66.074	.678	.508	.912
Item16	67.2775	65.412	.731	.608	.910
Item17	66.8220	69.852	.520	.361	.916

In Table 3, the study assesses the competence of practice teachers in CRT in its four dimensions. The results indicate that among these dimensions, practice teachers can better demonstrate CRT in developing attitudes and engendering competence, which is both described as *very true to me*. This means they can create a favorable disposition toward personal relevance and learners' volition. At the same time, they can create an understanding that their learners can effectively learn about something they value the most and perceive such learning as authentic to their community. The results affirmed Özüdogru's (2018) research, which revealed that practice teachers believe they are highly ready for culturally responsive teaching. If these competencies are considered very true by the participants, practice teachers are indirectly claiming they are ready for the actual application of CRT in a classroom setting.

However, they only have an emerging competence in establishing inclusion and enhancing meanings. They still need to be trained on how to create a learning environment in which both learners and practice teachers can feel respected and connected to each other. Moreover, they need to further develop their competence in creating an engaging and challenging learning experience that integrates learners' perspectives and values. Both competencies are described as *true to me*. Noticeably, the fourth item, establishing inclusion by using mixed languages and mixed cultural pairing in group works, obtained the lowest response. This result signals that practice teachers need a certain level of intercultural and multicultural competence to be able to demonstrate competence in establishing inclusion. In one mixed methods study, practice teachers believed they possessed a fair level of readiness in several skills for responding to culturally diverse classrooms, while the qualitative data revealed that they had deep trust in their character and personal attitudes toward diversity, which was considered a strength. Moreover, they are challenged by their anxiety regarding their poor cross-cultural knowledge and language skills (Singh & Akar, 2018).

Table 3
Competence of Practice Teachers in Culturally Responsive Teaching

Dimensions/Items	Mean	SD	Description
Establishing Inclusion			
I can include lessons about the acculturation process.	4.18	.65	Very true to me
I can make an effort to get to know my students' families and background.	4.47	.65	Very true to me
I can learn words in my students' native languages.	4.07	.82	True to me
I can use mixed-language and mixed-cultural pairings in group work.	3.93	.92	True to me
I can encourage students to speak their native languages with their children.	4.27	.73	Very true to me
I can spend time outside of class learning about the cultures and languages of my students.	4.00	.87	True to me
I can include lessons about discrimination or bias.	4.27	.74	Very true to me
Overall Mean	4.17	.55	True to me

Developing Attitudes

I can examine class materials for culturally appropriate images and themes.	4.32	.59	Very true to me
I can use surveys to determine about my students' classroom preferences.	4.43	.64	Very true to me
I can elicit students' experiences in prereading and relistening activities.	4.19	.67	True to me
Overall Mean	4.31	.50	Very true to me

Enhancing Meanings

I can ask students to compare their culture with other cultures.	3.95	1.09	True to me
I can supplement the curriculum with lessons about local and community events.	4.30	.67	Very true to me
I can encourage students to use cross-cultural comparisons when analyzing material.	4.03	.82	True to me
Overall Mean	4.09	.68	True to me

Engendering Competence

I can use peer tutors or student-led discussions.	4.12	.78	True to me
I can have students work independently, selecting their own learning activities.	4.07	.86	True to me
I can ask for student input when planning lessons and activities.	4.15	.82	True to me
I can provide rubrics and progress reports to students.	4.49	.63	Very true to me
Overall Mean	4.21	.58	Very true to me

Notes: 4.20-5.00 – Very true to me; 3.40-4.20- True to me; 2.60-3.39-Somewhat true to me; 1.80-2.59- A little bit true to me; 1.00-1.79- Not true to me at all

Table 4 correlates the four subscales or dimensions of practice teachers' competence in culturally responsive teaching. The results indicate a statistically positive and significant relationship. Their competence in establishing inclusion has a positive and significant relationship with their competencies in developing attitudes ($r=.732^{**}$, $p<0.01$), enhancing meanings ($r=.676^{**}$, $p<0.01$), and engendering the competence of learners ($r=.783^{**}$, $p<0.01$). This means that the better they can create a learning environment that fosters respect and connectedness, the better they can create a learning experience with a favorable disposition towards being engaging and challenging, effective and authentic, and vice versa. Additionally, their competence in developing attitudes has a positive and significant relationship with their competence in enhancing meanings ($r=.659^{**}$, $p<0.01$), and engendering competence. This means that the better they can create a favorable disposition toward learning through personal relevance and volition, the greater they can make the learning experience of learners engaging and challenging, and the greater they can create an understanding that every learner can effectively learn something of value to them that is relevant to their real-world experiences. Lastly, practice teachers' competence in enhancing meaning is positively and significantly correlated with their engendering competence ($r=.629^{**}$, $p<0.01$).

Table 4

Pearson r Correlating Competence of Practice Teachers across Subscales of Culturally Responsive Teaching

Subscales	EI	DA	EM	EC
EI		.732**	.676**	.784**
		.000	.000	.000
DA	.732**		.659**	.696**
	.000		.000	.000
EM	.676**	.659**		.629**
	.000	.000		
EC	.784**	.696**	.629**	
	.000	.000	.000	

Notes: **significant at the 0.01 level of significance.
             EI- Establishing Inclusion; DA- Developing Attitudes; EM- Enhancing Meanings;
             EC- Engendering Competence

Table 5

T Test for Independent Sample- Comparing the CRT Competence of Male and Female Practice Teachers

Dimension	Gender	N	Mean	SD	t	df	sig.
Establishing Inclusion	Male	53	3.98	.61	-3.034	189	.003
	Female	138	4.24	.51			
Developing Attitudes	Male	53	4.18	.58	-.2.253	189	.025
	Female	138	4.36	.45			
Enhancing Meanings	Male	53	4.01	.68	-1.014	189	.312
	Female	138	4.13	.68			
Engendering Competence	Male	53	4.02	.61	-2.695	189	.008
	Female	138	4.28	.56			

One of the intentions of the study was to verify the role of gender and academic programs/specializations in the competence development of practice teachers in culturally responsive teaching. A t-test for independent samples revealed that there was a significant difference in the competence of practice teachers in establishing inclusion (*t= -3.034, df=189, p<0.05*), developing attitudes (*t= - 2.253, df=189, p<0.05*), and engendering competence (*t= -2.695, df=189, p<0.05*), except for enhancing meaning (*t= -1.014, df=189, p>0.05*). Thus, female practice teachers are better than their male counterparts in creating a learning experience with respect and connectedness that promotes choice and personal relevance, engages in challenging learning, and supports authenticity and effectiveness. These results contradict previous findings that there exist no significant differences in CRT knowledge and practices of teachers in terms of gender (Heitner & Jennings, 2016). Additionally, Özüdogru (2018) also reported that gender did not influence prospective teachers' personal, professional and total readiness for culturally responsive teaching.

Table 6

ANOVA- Comparing the CRT Competence of Practice Teachers according to Academic Programs

Dimensions	Groupings	SS	df	MS	F	sig.
Establishing Inclusion	Between Groups	1.358	4	.340	1.108	.354
	Within Groups	56.979	186	.306		
	Total	58.337	190			
Developing Attitudes	Between Groups	2.223	4	.556	2.257	.065
	Within Groups	45.800	186	.246		
	Total	48.022	190			
Enhancing Meanings	Between Groups	3.411	4	.853	1.864	.119
	Within Groups	85.081	186	.457		
	Total	88.492	190			
Engendering Competence	Between Groups	1.553	4	.388	1.121	.348
	Within Groups	64.403	186	.346		
	Total	65.955	190			

The results show that a degree program or specialization has nothing to do with the competence of practice teachers in CRT across dimensions. This means further that the nature of specialization of practice teachers cannot give them the advantage in creating a learning experience for culturally responsive teaching. Thus, a degree program in itself does not play a significant role in CRT competence development.

Conclusion

This research assessed the competence of practice teachers in culturally responsive teaching, correlated the multiple dimensions of this competence, and verified the role of gender and degree programs in its development. Generally, practice teachers were competent in culturally responsive teaching. Thus, they were capable of demonstrating competence in developing attitudes and engendering competence, while their competence in establishing inclusion and enhancing meanings is still emerging. The four dimensions of their competence in CRT were positively and significantly correlated. Indeed, gender played a role in acquiring competence in CRT, which in turn demonstrated that female practice teachers were better off than their counterparts in creating a learning experience that is culturally responsive. On the other hand, a degree program or specialization does not play the same role as gender. Thus, no matter what major field or specialization practice teachers are affiliated with, this does not give them an advantage for acquiring and practicing CRT.

The findings above have practical implications for CRT practice, future research, and theory development. Practice teachers may be able to actualize their competency in CRT as they with their cooperating teachers further expose themselves to an actual classroom where they meet students from various cultural backgrounds. An internship program may be a venue for them to apply this competence in CRT. The internship they are currently taking would be their opportunity to interface theory and practice on establishing inclusion, developing attitudes, enhancing meanings, and engendering the competence of their learners. The period after their

graduation is a time for them to transition from their conceptual and theoretical understanding of CRT to its actual application.

Future research may focus on investigating variables other than gender and degree programs that may play a role in developing competence in CRT. Longitudinal research may be performed to trace how competence progresses over time from the first-time practice teachers come to the university up to the last year in college. It is also critical to identify the component of the curriculum that contributes to the development of practice teachers' competence in CRT.

Overall, the findings from this study represent a contribution to the further theoretical development of CRT, and especially so for the motivation framework for CRT as previously demonstrated by the seminal works of Wlodkowski (2004), Ginsberg and Wlodkowski (2009), and Gay (2010).

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Corresponding Author: Manuel E. Caingcoy
Email: manuelcaingcoy@buksu.edu.ph