

Preservice Teachers' Cultural Responsiveness in Education: Students from the United States,

Russia, and Algeria

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Abstract

The purpose of this research was to examine the differences in cultural responsiveness between pre-service teachers and English major students from the United States, Russia, and Algeria. The Cultural Diversity Awareness Inventory (Henry, 1991) was administered to 140 college students from two teacher preparation programs in Russia and the United States, and an English language program in Algeria. A multiple regression test and a one-way between-subjects ANOVA were conducted. Results revealed that cultural responsiveness in education vary from a country to another. Results also showed that preservice teachers from the United States outperformed their counterparts from Russia.

Keywords: Cultural responsiveness; diversity; pre-service teachers; quantitative.

Introduction

As the world becomes a global village and schools and universities become more culturally diverse, teachers and students must understand each other to reach an optimum level of learning (Nieto & Booth, 2010). It is crucial to grasp the different cultural differences each person brings into the classrooms to effectively provide a more culturally responsive instruction that suits students' needs and learning expectations. However, to achieve full understanding, it requires more than language proficiency, as sociocultural differences present a bigger challenge for students and teachers alike (Nieto & Zoller Booth, 2010). Prescott and Bransberger (2012) reported that American schools will become more racially and culturally diverse in the future, and by 2020, nearly half of all high school graduates will be minority students. On the Russian

side, Sinagatullin (2014) noted that school settings are growing into a cultural mosaic and highlighted the need to materialize multicultural approaches to address the diversity needs.

The purpose of this research is to examine the differences in cultural responsiveness among pre-service teachers and English major students from the United States, Russia, and Algeria. The following research questions guided this investigation:

- What characteristics best predict the variance of cultural responsiveness scores among pre-service teachers from the United States, Russia, and Algeria?
- What are the differences in cultural responsiveness scores among pre-service teachers from the United States, Russia, and Algeria?

Literature Review

Intercultural projects

Researchers have been concerned about how pre-service teachers lack proper training to meet the needs of the increasing diverse students' population (Cone, 2009; Endo, 2015; Khalifa, Gooden, & Davis, 2016; Wong, 2008). Some teacher-preparation programs tried to adjust by involving their pre-service teachers in culturally diverse settings and providing them with meaningful opportunities to develop culturally responsive teaching (Amatea, Cholewa, & Mixon, 2012; Bottoms, Ciechanowski, Jones, de la Hoz, & Fonseca, 2017; Cone, 2009; Endo, 2015; King, 2004; Miller & Mikulec, 2014). Researchers have found that field experiences play a central role in teaching culturally responsive teaching practices (Lee, Eckrich, Lackey, & Showalter, 2010). Miller and Mikulec (2014) sought to understand ways of promoting culturally diverse teachers through an analytical study of an immersion field experience in a specific school environment characterized by its progressive approach when addressing sexual, racial/ethnic, and socio-economic diversity. The researchers relied on a phenomenology to examine the lived

experiences of 60 pre-service teachers in an urban non-traditional charter school. This school was defined as a safe space for students who did not feel safe in their previous schools (LGBT, homeless or in foster homes, from low socioeconomic status, and Black, Latino/a, and multiracial students). This research highlighted the need to prepare pre-service teachers for culturally responsive teaching as their findings revealed how their participants were not prepared to interact with and relate to students from diverse backgrounds, and how they realized that not all students came to school feeling safe, which affected their academic success.

Embracing the immersive field experience, Ellis, Abreu-Ellis, Moore, Aukerman, Buttil, and Edwards (2017) investigated the possibility of developing cultural responsiveness while teaching content standards. A group of 16 participants (eight preservice teachers and eight practicing K-12 teachers) participated in the Fulbright-Hays Group Projects Abroad (GPA) program to Brazil. The purpose of the program was to raise the participants' cultural awareness and incorporate their new understanding in planning instructions for their students, through three elements of diversity: Brazilian culture, Portuguese language, and the experiences of people with disabilities and their families in Rio de Janeiro, Brazil. This study abroad program proved to have a potential in developing culturally responsive teaching practices.

Many educators adopted service-learning as an approach to encourage pre-service teachers to connect theoretical knowledge and field experience and critically reflect on their practices (Cone, 2009; King, 2004). Endo (2015) conducted a case study to explore how a collaborative service-learning project in an urban elementary classroom affected 19 preservice teachers' awareness of, commitment to, and understanding of culturally responsive practices. Findings revealed that the participants gained experience planning and teaching multicultural

content at the most basic level through the service-learning project. Participants realized the importance of cultural responsiveness to meet academic needs of diverse learners.

Some researchers found that involving preservice teachers in informal settings with diverse students and their families has shown positive improvement in teacher education (Amatea et al., 2012; Bottoms et al., 2017; Harlow, 2012; Lee et al, 2010). Bottoms et al. (2017) examined how 54 preservice teachers from a university in the Pacific Northwest experienced Family Math and Science Nights with culturally and linguistically diverse children and families. Findings from their descriptive study research highlighted the need to create more opportunities for interaction and reflection, to integrate emotions, to re-conceptualize practice, to building partnerships in community, and to teach content through culture and community resources.

Similarly, Zygmunt Cipollone, Tancock, Clausen, Clark, and Mucherah (2018) explored the impact of community service on the pre-service teachers' contextualized comprehension of culture, community, and identity of children and families. The study included 60 pre-service teachers from a midsized Midwestern public university, who were matched with community mentors from neighborhood schools in Muncie, Indiana. The pre-service teachers were enrolled in the Schools Within the Context of Community program, which involve them in a community framework for a whole semester. The researchers used a qualitative case study, and data were collected from the pre-service teachers and their 12 mentors. The findings revealed that the community engagement resulted in critical reflections challenging previous perceptions of race, culture, power, and privilege. Findings also indicated the program equipped the candidates with authentic culturally responsive teaching practices.

Oftentimes, preservice teachers lack the knowledge about the perspectives and life circumstances of students from diverse backgrounds; consequently, they hold negative

perceptions toward these students and families (Amatea et al., 2012; Hyland & Heuschkel, 2010). Zyngier (2012) employed a mixed methods research design to compare and contrast the responses of 62 pre-service teachers in Australia to 'scenarios' examining their beliefs toward culturally, linguistically, and economically diverse students. The researcher administered a survey and the pre-service teachers were asked to read eight scenarios and write a detailed answer, and to comment on the scenario about what their response would be. This research uncovered a lack of understanding of the students and their families and associated the conflicts in the scenarios with personal differences or inadequate parenting practices. Additionally, the pre-service teachers held negative attitudes toward culturally, linguistically, and economically diverse students and considered them as a problem.

The Cultural Diversity Awareness Inventory (CDAI)

The Cultural Diversity Awareness Inventory (CDAI) (Henry, 1991) was developed to explore the attitudes, beliefs, and perceptions of preservice teachers towards teaching students from culturally diverse backgrounds and to encourage them to reflect on their own attitudes, beliefs and behavior towards young children of culturally diverse backgrounds (Brown, 2004). Iwai (2013) utilized multicultural children's literature to investigate preservice teachers' perceptions of multicultural and diversity matters. Nineteen preservice teachers from Midwestern University participated in the study. She administered the CDAI as a pre and posttest, and collected data from open-responses, writings, projects, and class interactions. The results demonstrated that participants developed awareness toward the crucial role of multicultural children's literature toward the end of the semester.

Similarly, Yeung (2006) examined the perceptions of local Hong Kong teachers about working in multicultural settings, and the effect of worldviews on the cultural awareness of

Chinese and United States teachers. The author administered the CDAI to 100 full-time and part-time primary and secondary school teachers. She did descriptive statistics and followed Larke's (1990) study in data analysis. Results revealed that local teachers hold a stereotypical conception of students from culturally diverse and educationally disadvantaged backgrounds; they showed differences in cultural diversity awareness between the China and United States.

Milner et al. (2003) investigated how teacher preparation programs prepared future teachers for cultural responsiveness. They administered the CDAI survey to 99 preservice teachers from a large Midwestern university. They also followed the Larke's (1990) study and conducted descriptive statistics. Their results showed improvement in the teachers' perception toward cultural responsiveness compared to the Larke's (1990).

Methodology

A quasi-experimental methodology was used in this study.

Participants

The research comprised of 140 participants. It took part among two teacher preparation programs from a university in western Russia, a university from southeast Texas in the United States (U.S.), and an English language program from Northern Algeria. The groups constituted of 5.3% freshman, sophomores 29.5%, 11.6% juniors, and 53.7% seniors. They were 7.9% male and 92.1% female students. They were 9.9% African American, 11.9% Hispanic, 56.4% White, and 21.8% identified as other.

Instrument

The researcher used The Cultural Diversity Awareness Inventory (Henry, 1991) to elicit the attitudes, beliefs, and perceptions of preservice teachers towards teaching students from culturally diverse backgrounds. The inventory was designed to help the participants in looking at

their own attitudes, beliefs and behavior towards young children of culturally diverse backgrounds. The inventory consists of 28 Likert-scale items (1 = strongly agree, 2 = agree, 3 = neutral, 4 = disagree, 5 = strongly disagree). According to Yeung (2006): 'The Cronbach's test of internal consistency evidenced an alpha coefficient of 0.90. The test-retest for reliability was established at 0.66. The CDAI was tested for content validity by a panel of experts. Based on their analysis, it was revised and made available in 1995' (p.39). The CDAI includes five sections: (a) General Cultural Awareness, (b) the Culturally Diverse Family, (c) Cross Cultural Communication, (d) Assessment, and (e) the Multicultural Environment.

Data analysis

To address the research questions, a multiple regression test and a one-way between-subjects ANOVA were conducted. A multiple regression test predicts the value of a variable from the value of two or more other variables. A one way ANOVA compares means between more than two groups (Schwartz & Wilson, 2018).

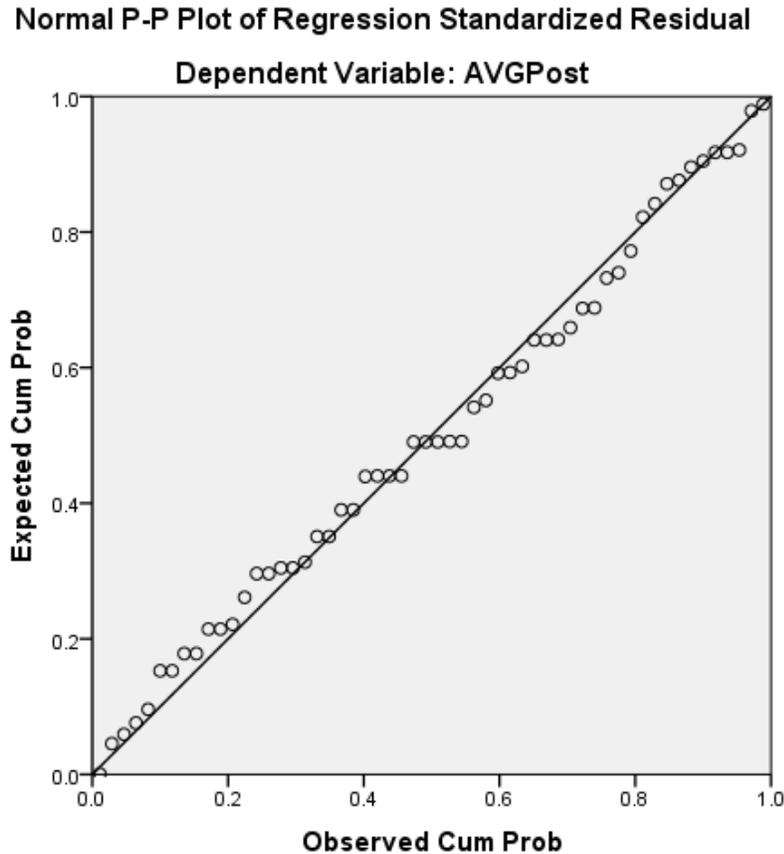
Results

Multiple regression

Data were screened and found to meet the assumptions for linear multiple regression. An inspection of the P-P plot indicated that data were linear and homoscedastic as shown in Figure 1. In addition, there was no evidence of collinearity as none of the associations between the predictor variables were greater than .70. Finally, the maximum Cook's distance was .21, which was less than 1.00.

Figure 1

Multiple Regression P-P Plot



Multiple regression analysis was used to test if the country of origin significantly predicted participants' overall achievement on the posttest. The results of the regression indicated the two predictors explained 14.6% of the variance ($R^2 = .146$, $F(2, 53) = 4.53$, $p < .01$) as shown in Table 1. It was found that country of origin was a significant predictor of the CDAI ($\beta = -.40$, $p < .001$) as shown in Table 2.

Table 1

Multiple Regression Analysis of Cultural Responsiveness and Country of Origin

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.382 ^a	.146	.114	.27839	.146	4.539	2	53	.015

Table 2

Multiple Regression Analysis Variable of Cultural Responsiveness and Country of Origin

Model		Unstandardize		Standardized		Sig.
		d Coefficients	Std. Error	Beta	t	
1	(Constant)	3.369	.182		18.482	.000
	Group	-.035	.087	-.056	-.406	.686
	Country	-.221	.076	-.401	-2.905	.005

One-way ANOVA

The CDAI average score from the pretest results was calculated for each participant. A one-way between-subjects ANOVA was conducted to compare pretest CDAI means among American, Russian, and Algerian students. The CDAI average score was highly significant among the three groups at the $p < .001$ level for the three conditions [$F(3, 133) = 3.90, p = .01$]. Post hoc comparisons using the Tukey HSD test indicated that the mean score for students from the United States ($M = 3.04, SD = .27$) was significantly different from the students from Russia ($M = 2.85, SD = .30$). However, the students from Algeria ($M = 2.93, SD = .33$) did not show any significant difference from the American and the Russian students. Taken together, these results suggest that the country of origin plays a role in how students hold conceptions of cultural responsiveness in teaching. A post hoc test LSD revealed that students from the U.S. significantly outperformed the students from Russia with a $p < .001$.

Discussion

The results of this research shed light on how cultural responsiveness in education vary from a country to another. In this study, preservice teachers from the U.S. had a different attitude toward cultural responsiveness in education from their Russian counterparts. Young (2006) found similar results when he compared CDAI results between U.S. preservice teachers and teachers from Hong Kong. Those results are a common thread in the body of research. For example, Gómez-Hurtado, González-Falcón, and Coronel (2018) revealed the lack of cultural responsiveness in Spanish schools, and equivalently in Australian schools (Zyngier, 2012). On the other hand, studies from Canada (Miles & Bailey-McKenna, 2016), and the Philippines (Poralan, 2014) showed that teachers developed a sense of cultural responsiveness.

The results of this study revealed that preservice teachers from the U.S. outperformed the students from Russia. This might be interpreted with geographical and socio-cultural factors (Young, 2006). According to the United Nations data, The United States hosts most of the world's immigrant populations (McCarthy, 2017). = By looking at our participants' demographic information, the U.S. group was diverse. They identified as White, African American, Hispanic, Asian, and Other; meanwhile, all the Russian students identified as White. These factors might have influenced the participants' cultural awareness and cross-cultural communication skills. In her study, Christophel (1996) found a significant difference between American and Russian students' orientation toward communication, with the Russians scoring lower than the Americans in terms of communication orientation. She concluded that cultural background plays a central role when assessing cross-cultural communication. One might also take into consideration the fact that the Cultural Diversity Awareness Inventory was developed in the U.S. Even though it was used in international contexts before (Yeung, 2006), it might have been constructed around American context and beliefs on cultural responsiveness.

Sinagatulin (1998) reported that the U.S. and Russia define multicultural education similarly, but they process it differently. Koriakina (2018) addressed the cultural responsiveness in education situation in Russia and stated: "In Russia, for the time being there are more theoretical than practical developments of the goals, objectives and content of multicultural education." (p.704) If we consider these statements, and assess the Russian participants in this study accordingly, we might conclude that they are not familiar with the concept of cultural responsiveness in education. However, this does not mean that the Russian government is completely oblivious to interethnic education in their country. Multicultural competence in teacher preparation is gaining momentum (Sinagatullin, 2015), and they are still in the progress of figuring out the best practices and policies to efficiently address the matter (Panina, 2014). Even though the body of research revealed that educators in the U.S. show a substantial progress in cultural responsiveness (Endo, 2015; Iwai, 2013; Milner et al., 2003; Zygmunt et al., 2018), it also does not mean that they reached the optimum level of responsiveness (Heitner & Jennings, 2016).

Conclusion

Sinagatullin (2015) noted that;

The notion of attitude is most closely related to his or her inner credo and feelings, ways of thinking, and dispositions toward working with the diversity of students. This notion depicts a degree of a teacher's understanding and psychological readiness to make the educational process more multiculturally oriented and productive (p.112).

This study revealed that cultural responsiveness was perceived differently among preservice teachers based on their country of origin. Teacher training in the 21 Century represents a global challenge with the manifestation of diversities and identities in education, and

educators are required to cater for diversity of cultures and multiplicity of identities they face (Juodaitytė & Šiaučiulienė, 2012; Sinagatullin, 2015). Preservice teachers should reflect on their own beliefs and how they shape practices (Lea, 2004; Zyngier; 2012). Teacher-preparation programs should create opportunities for their pre-service teachers to get involved in culturally diverse settings and provide them with meaningful opportunities to develop culturally responsive teaching.

References

- Amatea, E. S., Cholewa, B., & Mixon, K. A. (2012). Influencing preservice teachers' attitudes about working with low-income and/or ethnic minority families. *Urban Education, 47*(4), 801-834.
- Banks, J. A. (2009). *Teaching strategies for ethnic studies* (8th ed). Boston, MA: Allyn & Bacon.
- Boser, U. (2011). *Teacher diversity matters: A state-by-state analysis of teachers of color*. Washington, DC: Americans for Progress.
- Bottoms, S. I., Ciechanowski, K., Jones, K., de la Hoz, J., & Fonseca, A. L. (2017). Leveraging the community context of Family Math and Science Nights to develop culturally responsive teaching practices. *Teaching and Teacher Education, 61*, 1-15.
- Brown, E. L. (2004). What precipitates change in cultural diversity awareness during a multicultural course: The message or the method?. *Journal of Teacher Education, 55*(4), 325-340
- Cone, N. (2009). A bridge to developing efficacious science teachers of all students: Community-based service-learning supplemented with explicit discussions and activities about diversity. *Journal of Science Teacher Education, 20*(4), 365-383
- Christophel, D. M. (1996). Russian communication orientations: A cross-cultural examination. *Communication Research Reports, 13*(1), 43-51.
- Ellis, J. B., Abreu-Ellis, C., Moore, A., Aukerman, K., Buttil, M., & Edwards, A. (2017). Developing cultural responsiveness while teaching content standards: Lessons from a Brazilian experience. *American Secondary Education, 45*(2), 69-84.

- Endo, R. (2015). Linking practice with theory to model cultural responsiveness: Lessons learned from a collaborative service-learning project in an urban elementary classroom. *Multicultural Education, 23*(1), 23-31.
- Gómez-Hurtado, I., González-Falcón, I., & Coronel, J. M. (2018). Perceptions of secondary school principals on management of cultural diversity in Spain. The challenge of educational leadership. *Educational Management Administration & Leadership, 46*(3), 441-456.
- Harlow, D. B. (2012). The excitement and wonder of teaching science: What pre-service teachers learn from facilitating family science night centers. *Journal of Science Teacher Education, 23*(2), 199-220
- Heitner, K. L., & Jennings, M. (2016). Culturally responsive teaching: Knowledge and practices of online faculty. *Online Learning, 20*(4), 54-78.
- Henry, G. B. (1991). *Cultural Diversity Awareness Inventory:(CDAI)*. Hampton University.
- Hyland, N. E., & Heuschkel, K. (2010). Fostering understanding of institutional oppression among US pre-service teachers. *Teaching and Teacher Education, 26*(4), 821-829.
- Iwai, Y. (2017). Multicultural children's literature and teacher candidates' awareness and attitudes toward cultural diversity. *International Electronic Journal of Elementary Education, 5*(2), 185-198.
- Juodaitytė, A. & Šiaučiuilienė, R. (2012). Challenges of postmodernism for teacher training: Changing contexts of education and diversity of identities. *Teacher Education / Mokytoju Ugdomas, 19*(2), 158–171. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=eue&AN=87345988&site=ehost-live&scope=site>

- Khalifa, M. A., Gooden, M. A., & Davis, J. E. (2016). Culturally responsive school leadership: A synthesis of the literature. *Review of Educational Research, 86*(4), 1272-1311.
- King, J. T. (2004). Service-learning as a site for critical pedagogy: A case of collaboration, caring, and defamiliarization across borders. *Journal of Experiential Education, 26*(3), 121-137.
- Koriakina, A. A. (2018). Realization of multicultural education in the aspect of intercultural communication. *Педагогика, 90*(5), 700-705.
- Larke, P. J. (1990). Cultural diversity awareness inventory: Assessing the sensitivity of preservice teachers. *Action in Teacher Education, Fall, (3)*, 23–30.
- Lea, V. (2004). The reflective cultural portfolio: Identifying public cultural scripts in the private voices of white student teachers. *Journal of Teacher Education, 55*(2), 116-127.
- Lee, C. (2012). From disrupting the commonplace to taking action in literacy education. *Journal of Thought, 47*(2), 6–18.
- Lee, R. E., Eckrich, L. L., Lackey, C., & Showalter, B. D. (2010). Pre-service teacher pathways to urban teaching: A partnership model for nurturing community-based urban teacher preparation. *Teacher Education Quarterly, 37*(3), 101-122.
- McCarthy, N. 2017, January 18. Which countries host and send the most migrants? [Digital image]. Retrieved April 24, 2019, from <https://www.statista.com/chart/7636/which-countries-host-and-send-the-most-migrants/>.
- Miles, J., & Bailey-McKenna, M. C. (2016). Giving refugee students a strong head start: The LEAD Program. *TESL Canada Journal, 33*(10), 109-128.
- Miller, P. C., & Mikulec, E. A. (2014). Pre-service teachers confronting issues of diversity through a radical field experience. *Multicultural Education, 21*(2), 18-24.

- Milner, H. R., Flowers, L. A., Moore, E., Moore, J. L., & Flowers, T. A. (2003). Preservice teachers' awareness of multiculturalism and diversity. *The High School Journal*, 87(1), 63-70.
- Nieto, C., & Zoller Booth, M. (2010). Cultural competence: Its influence on the teaching and learning of international students. *Journal of Studies in International Education*, 14(4), 406-425.
- Panina, G. V. (2014). The role of education in the sociocultural adaptation of migrants. *Russian Education & Society*, 56(12), 9-27. <https://doi.org/10.2753/RES1060-9393561202>
- Poralan, P. S. (2014). Promotion of cultural competence in relation to affective commitment of the faculty in tertiary schools in Davao Region, Philippines. *IAMURE International Journal of Education*, 9(1), 1-18.
- Prescott, B. T., & Bransberger, P., (2012). Knocking at the college door: Projections of high school graduates. Western Interstate Commission for Higher Education. Retrieved from <http://ezproxy.shsu.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=ED540129&site=eds-live&scope=site>
- Sinagatulin, I. M. (1998). Diversity and multicultural education: a glance at the Russian front. *Multicultural Education*, 5(4), 24–25. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=eue&AN=507656915&site=ehost-live&scope=site>
- Sinagatullin, I. M. (2015). Developing preservice elementary teachers' multicultural competency: Some reflections from Russia. *Teacher Education and Practice*, 28(1), 110-126.
- Sinagatullin, I. M. (2014). Multicultural concerns of rural elementary teachers in Russia. *International Journal of Educational Reform*, 23(4), 258-269.

- Schwartz, B., Wilson, J., (2018). An easyguide to research design and SPSS (2nd edition). Sage.
- Wong, P. (2008). Transactions, transformation, and transcendence: Multicultural service-learning experience of preservice teachers. *Multicultural Education, 16*(2), 31-36.
- Yeung, A. S. (2006). Teachers' conceptions of borderless—a cross-cultural study on multicultural sensitivity of the Chinese teachers. *Educational Research for Policy and Practice, 5*(1), 33-53.
- Zygmunt, E., Cipollone, K., Tancock, S., Clausen, J., Clark, P., & Mucherah, W. (2018). Loving out loud: Community mentors, teacher candidates, and transformational learning through a pedagogy of care and connection. *Journal of Teacher Education, 69*(2), 127-139.
- Zyngier, D. (2012). Pygmalions, Galateans and Golems: Why pre-service teacher beliefs about children from diverse backgrounds (still) matter. *International Journal on School Disaffection, 9*(1), 23-38.