2024

# Preparing Students in Speech-Language Pathology Through a Diversity, Equity, and Inclusion Lens

Jacy Hansen
*Minnesota State University, Mankato*

# PREPARING STUDENTS IN SPEECH-LANGUAGE PATHOLOGY THROUGH A DIVERSITY, EQUITY, AND INCLUSION LENS

By

**Jacy Hansen, B.S.**

A Thesis Submitted in Partial Fulfillment of the

Requirements for the Degree of

Master of Science

In

Communication Sciences and Disorders

Minnesota State University, Mankato

Mankato, Minnesota

May 2024

April 10, 2024

Preparing Students in Speech-Language Pathology Through a Diversity, Equity, and Inclusion Lens

Jacy Hansen, B.S.

This thesis has been examined and approved by the following members of the student's committee.

_____

Dr. R. Danielle Scott, PhD, Advisor

_____

Dr. Megan Mahowald, PhD, Committee Member

**Table of Contents**

# ACKNOWLEDGEMENTS

Words cannot express my gratitude towards my defense committee. Dani and Megan, thank you for your profound belief in my abilities. You both have provided me invaluable knowledge and mentorship that I will cherish forever. Thank you both for being my committee, advisors, professors, and hype-women, all in one.

I would also like to thank the graduate students who participated in this study. Thank you for your support in preparing MNSU's future SLPs to work with racially and ethnically diverse clients.

I am grateful for my family and friends who supported me through this crazy idea. A special thank you to my boyfriend Ethan. Thank you for all the unwavering support, patience, and love you have given me throughout this process.

"*Do the best you can until you know better. Then when you know better, do better.*"

- Maya Angelou

## Positionality Statement

I am a white, non-Hispanic, cisgender woman who has benefitted from racial and socioeconomic privilege my whole life. I have lived and been educated in predominantly white areas. These privileges have greatly impacted my life, which includes the work in this thesis. While I have continuously and consciously examined my positionality through this work, I acknowledge that I cannot fully understand these experiences as a white individual.

# PREPARING STUDENTS IN SPEECH-LANGUAGE PATHOLOGY THROUGH A DIVERSITY, EQUITY, AND INCLUSION LENS

JACY HANSEN, B.S.

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF SCIENCE IN COMMUNICATION SCIENCES AND DISORDERS

MINNESOTA STATE UNIVERSITY, MANKATO
MANKATO, MINNESOTA
MAY 2024

## ABSTRACT

STATEMENT OF PROBLEM:
As the racial diversity of the United States population increases, diversity in the field of speech-language pathology remains homogenous. Efforts to increase diversity, equity, and inclusion (DEI) continue clinically and academically. Considerable action must be taken to create an equitable space for racially and ethnically diverse students and improve interactions with racially and ethnically diverse clients.

PROCEDURE:
The purpose of this study was to examine students' perspectives of clinical instruction and coursework to prepare them to practice culturally responsivity in speech-language pathology. Also, this study aimed to explore students' experiences of learning culturally responsive care and feelings about programmatic changes.

FINDINGS:
Quantitative results found that Year 1 students (received programmatic changes related to DEI) felt more prepared to practice cultural responsivity than Year 2 students (did not receive programmatic changes related to DEI).
Three themes emerged from the qualitative data analysis: student knowledge and skill development, student feelings about programmatic changes, and program and instructor journey. While many students noted they had limited experience with racially and ethnically diverse clients, they felt their coursework infused with DEI helped them become better prepared for the future

**Introduction**

The Council on Academic Accreditation (CAA) requires that programs provide culturally responsive education to speech language pathology (SLP) students.  Speech-language pathology programs must confirm they are teaching diversity, equity, and inclusion academically and clinically. The CAA approves multiple options of program activities, student experiences, and assignments in which this requirement can be completed. These opportunities facilitate greater understanding in topics such as cultural and linguistic identities, the examination of biases, and multilingualism (Council on Academic Accreditation in Audiology and Speech-Language Pathology, 2023). Culturally responsive practices influence the way speech-language pathologists provide services.

**Diversity, Equity, and Inclusion Framework**

The framework for diversity, equity, and inclusion (DEI) is an intentional, reflective pathway to ensure best practices are being met in the areas of standards, outcomes, and climate in a variety of settings. Continued need for DEI exists in all facets of our social, political, and economic systems. While diversity remains at the forefront of minds, it is necessary to understand the difference and depth between the terms diversity, equity, and inclusion. When all terms are synergistically approached, considerable change will be seen within society.

In order to discuss diversity, equity and inclusion in speech-language pathology relevant terms will be introduced in Table 1 (Office of Equity and Inclusion, 2021). While the general focus is framed with Diversity, Equity and Inclusion, we acknowledge that this is the framework under which the academic and clinical course work is designed, but the product or the

application of this academic and clinic coursework is cultural humility and being culturally

responsive.

**Table 1**

*Terms and Definitions Related to Diversity, Equity, and Inclusion*

| Term | Definition |
|---|---|
| Diversity | The concept of diversity encompasses acceptance and respect. It means understanding that each individual is unique and recognizing our individual differences. These can be along the dimensions of race, ethnicity, gender, sexual orientation, socio-economic status, age, physical abilities, religious beliefs, political beliefs, or other ideologies. |
| Equity | The proactive reinforcement of policies, practices, attitudes and actions that produce equitable power, access, opportunities, treatment, impacts and outcomes for all. |
| Inclusion | Authentically bringing traditionally excluded individuals and/or groups into processes, activities and decision/policy making in a way that shares power. |
| Cultural Humility | A process of reflection and lifelong inquiry involving self-awareness of personal and societal biases as well as awareness of aspects of identity that are most important to others we encounter leading to continuous learning in an accepting and thoughtful manner. |
| Cultural Responsive Pedagogy | Culturally responsive pedagogy (CRP) is a pedagogical approach that 1) improves the learning capacity of diverse students who have been marginalized educationally, 2) centers around affective and cognitive aspects of teaching and learning, and 3) builds resilience and academic mindset by pushing |

|  |  |
|---|---|
|  | back on dominant narratives about people of color (Hammond, 2015). |
| Antiracist Pedagogy | Anti-racist pedagogy "focuses on how race and racism are baked into our system," and "recognizes intersectionality, but strategically and intentionally focuses on race and racism." (Kishimoto, 2020, p. 12). The approach pairs faculty and students to examine their roles and responsibilities to acknowledge and challenge a racist society. |

## Diversity of the U.S. Population

It is evident that the racial diversity of the population of the United States is increasing rapidly. According to Vespa et al. (2020), the number of racially diverse individuals will substantially increase from 2020 to 2060. Likewise, Cohn and Caumont (2016) explains there will not be one single racial or ethnic group as the majority in the United States as early as the year 2042. As years go by, more evidence concludes that rapid diversity growth is likely. Educational and healthcare outcomes are positively impacted when individuals receive care and instruction from people of the same racial or ethnic background. As a practitioner-based field, speech-language pathology should be responsive to the overall demographics of the population.

DEI does not limit itself to race and ethnicity. Intersectionality is a notion that recognizes the multiple identities a person may have, as well as the barriers and oppression that comes with those identities (United Way of the National Capital Area, 2023). Multiple identities in race, class, ability, gender, religion, and other multicultural characteristics create intersectionality. Likewise, factors including language skills, ability, education, sexual orientation, marginalized experiences, and others can all impact the daily life of an individual.

Knowledge of cultural responsiveness and antiracist practices is a crucial aspect to understanding diversity and implementing culturally responsive care for practitioners. It is mandated by accrediting bodies in speech-language pathology. According to the American Speech-Language-Hearing Association (ASHA), cultural responsiveness is defined as "understanding and appropriately including and responding to the combination of cultural variables and the full range of dimensions of diversity that an individual brings to interactions." This is a dynamic, lifelong commitment to create diverse and equitable spaces. Cultural responsiveness assists speech-language pathologists (SLPs) in understanding the impact of social determinants of health, disparities, and improvement of clinical outcomes (American Speech-Language-Hearing Association, n.d.). Anti-racism is "the practice of actively identifying and opposing racism. The goal of anti-racism is to actively change policies, behaviors, and beliefs that perpetuate racist ideas and actions." (*What Is Anti-Racism?*, n.d.). Being anti-racist is a lifelong process of educating oneself on issues related to race, equity, and power imbalances within systems, as well as actively pursuing this change.

Before terms such as cultural responsiveness and antiracist practices, the term cultural competency was used to recognize cultural knowledge. Cultural competency is a set of behaviors and attitudes that allow individuals of differing races and cultures to work effectively together (Cross et al., 1989). There are limitations to using the term cultural competency. It suggests there is an endpoint to learning, with emphasis on knowledge acquisition. In this paper, the author will use the terms "cultural responsivity" and "antiracist practices" when discussing services that acknowledge cultural identity and seek to change structural inequities within systems. This distinction is important for curricular change and adherence to these new accreditation standards.

**Diversity of Speech-Language Pathology**

In addition to accreditation standards, the roles and responsibilities of speech-language pathologists (SLPs) are governed by the American Speech-Language-Hearing Association (ASHA). ASHA determines the scope of practice of an SLP and thus the individual knowledge and skills needed to be certified as an SLP. This includes the assessment and treatment in communication disorders which includes areas that impact communication and swallowing such as speech, language, cognition, and swallowing (American Speech-Language-Hearing Association et al., 2016). Assessment and treatment involve individuals of all ages and cultural backgrounds. ASHA mandated cultural education for program accreditation in 1994 through the Council on Academic Accreditation (CAA) in Audiology and Speech-Language Pathology (Council on Academic Accreditation in Audiology and Speech-Language Pathology, 2023).

**Demographics of ASHA Members**

ASHA has committed itself to providing culturally responsive services for racially and ethnically diverse individuals. But as diverse populations grow steadily in the U.S., SLPs remain overwhelmingly white (Mahendra & Visconti, 2021; Abdelaziz et al., 2021). According to ASHA's 2022 Member and Affiliate Profile (see Table 2 and 3), about 8.8% of ASHA members and affiliates identify as part of an underrepresented racial group, and 6.6% identify as Hispanic or Latino (American Speech-Language-Hearing Association, 2023). This leaves the majority of SLPs in the U.S. identifying as white.

**Table 2**

*Self-Identified Race in Certified Speech-Language Pathologists*

| Race | Certified in Speech-Language Pathology (n = 169,873) |
|---|---|
| American Indian or Alaska Native | 0.3% |
| Asian | 3.1% |
| Black or African American | 3.7% |
| Native Hawaiian or Other Pacific Islander | 0.2% |
| White | 91.2% |
| Multiracial | 1.5% |

**Table 3**

*Self-Identified Ethnicity in Certified Speech-Language Pathologists*

| Ethnicity | Certified in Speech-Language Pathology (n = 172,906) |
|---|---|
| Hispanic or Latino | 6.6% |
| Not Hispanic or Latino | 93.4% |

**Demographics of SLP Graduate Student Programs**

The Communication Sciences and Disorders Centralized Application Service (CSDCAS) collects data from SLP graduate admissions cycle (see Table 4 and 5) (Woods & Council of Academic Programs in Communication Sciences and Disorders, 2023). The areas reported include acceptance rates, denial rates, and applicants pursuing a graduate degree in speech language pathology.

**Table 4**

*2022-2023 Accepted SLP Applicants by Race*

| Race | 2022-2023 Year Total Applicants (n = 10,467) | Acceptance Rate |
|---|---|---|
| Asian | 6.2% | 75% |
| Black | 5.8% | 71% |
| Native American | 0.5% | 69% |
| Pacific Islander | 0.1% | 57% |
| Two or more races | 3.9% | 83% |
| White | 77.4% | 82% |
| Did not answer | 6.2% | 74% |

**Table 5**

*2022-2023 Accepted SLP Applicants by Ethnicity*

| Ethnicity | 2022-2023 Year Total Applicants (n = 10,276) | Acceptance Rate |
|---|---|---|
| Hispanic | 17.7% | 74% |
| Non-Hispanic | 82.3% | 81% |

Based on this data, most applicants are white and non-Hispanic. Graduate programs are also accepting at a higher rate than other races and ethnicities. This indicates that changes in the overall demographics of SLPs will not change significantly in future years. Overall, the field of speech-language pathology is overwhelmingly white is not increasing with diversity at a substantial rate and is not and will not be representative of overall ethnic and racial diversity currently or in the future.

## Speech-Language Pathology in Medical Settings

Speech-language pathologists (SLPs) primarily work in medical and educational settings. Systemic racism is evident in both settings and must be addressed. In this paper, the author will discuss these career paths separately. With the growing diversity in the U.S., there is a critical need for diversity in healthcare providers (Fuse & Bergen, 2018; Salsberg et al., 2021). Additionally, a lack of cultural responsivity and antiracist practices in healthcare workers may create negative perceptions and attitudes toward the client, creating fewer effective services further burdening people of color in a variety of ways. Cultural and linguistic barriers can interfere with providing effective healthcare (Saha et al., 2008). In addition, the amount of trust the patient of color holds for the healthcare system can be impacted by the race of the healthcare provider. The healthcare system has historically traumatized patients of color. Trauma suffered by one generation of patients of color can create adverse effects on generations to follow (Kirmayer et al., 2014). Healthcare worker biases and discriminatory acts may create apprehension, anxiety, and fear in patients of color. There is also a possibility of implicit or explicit bias and a lack of patient-centered care (Green et al., 2003; Cooper et al., 2012).

Since SLPs are providers in a medical system, biases and trust challenges associated with other healthcare workers can also negatively influence their practices. Healthcare providers and SLPs must be ready to dismantle inequities within the healthcare system. High-quality patient care for racially and ethnically diverse individuals is dependent on the understanding of societal systems, health experiences of marginalized groups, and clinician perception of expertise (Braun, 2017). With the knowledge of the trauma, biases, and systematic racism the healthcare system holds, it is imperative that healthcare professionals receive cultural responsivity training. Training has been shown to improve cultural responsivity and promote open-mindedness in

healthcare providers (Majumdar et al., 2004). Without cultural responsivity trainings and knowledge of cultures, the healthcare provider may show personal biases and stereotyping, which may impact the patient's health, diagnosis, and medical implications (Bond et al., 2001; Jones et al., 2004; Cooper et al., 2012).   Similar trends are apparent with SLPs, due to being rooted in the medical model practice of disability. Cultural responsiveness is required to be ethical and provide robust speech-language pathology services to patients.

## Speech-Language Pathology in Educational Settings

Over the past 10 years, there has been an increase in English Language Learners (ELL) within the United States public school system ("The Condition of Education 2023", 2023). However, public school teachers remain homogenous in race and gender (U.S. Department of Education, National Center for Education Statistics, 2023). This is a similar trend that is observed in speech-language pathology. Educational performance in students of color is widely disadvantaged and discriminated based on institutional and structural racism (Ladson-Billings & Tate, 1995; Privette, 2021). Pedagogical approaches must acknowledge linguistic diversity and reduce standardized assessments to improve education for students of color (Privette, 2021).

Cultural responsivity within the classroom involves both cognitive skills (i.e., perspective taking) and emotional skills (i.e., empathy) (Abacioglu et al., 2020; Liang & Zhang, 2009). Using these skills helps individualize teaching to meet a student's needs (Halpern et al., 2022) and builds trust and relationships with students and families (Siwatu, 2007; Lenski et al., 2005). Providing the necessary coursework, trainings, and field experience regarding English Language Learners (ELL) alleviates stress and confusion among teachers and school SLPs (Roseberry-McKibbon et al., 2005; Wiggins & Follo, 1999; Scott & Mumford, 2007).

Individuals in the education field must challenge the standards of performance that were put in place decades ago that are oppressive and harmful towards students of color (Privette, 2021). Likewise, teachers must use the student's valuable information to shape their educational experience (Lenski et al., 2005).

## Cultural Responsivity in Speech-Language Pathology

Systemic racism and white privilege are still held within the field of speech-language pathology, down to the general policies that govern SLPs (Yu, et al., 2021; Ellis et al., 2021). These policies are responsible for the ways SLPs and speech-language pathology graduate programs create programs and training practices. SLPs typically begin learning about diversity, equity, and inclusion (DEI) in undergraduate and graduate school. But while student interest to work with racially and ethnically diverse clients is high, (Howells et al., 2016), confidence and competency in treatment is low to moderate (Kohnert et al., 2003; Guiberson & Atkins, 2012). Gaining education and practical application related to DEI may alleviate feelings of uncertainty. Research has shown that requiring courses in DEI has been effective for speech language pathology students to improve clinical effectiveness, comfort, and confidence (Kohnert et al., 2003; Howells et al., 2016; Daughrity, 2021; Roseberry-McKibbon et al., 2005). Conversely, a lack of knowledge in racially and ethnically diverse experiences impact clients clinically by over-relying on standardized assessments, which can be harmful toward racially and ethnically diverse populations (Guiberson & Ferris, 2023).

# Equity and Inclusion in Speech-Language Pathology

## Higher Education

Higher education in speech-language pathology has a history of lacking appropriate education in diversity, equity and inclusion (DEI). In higher education, academic programs are responsive to both accrediting bodies such as the Council for Academic Accreditation (CAA) as well as knowledge and skills individual students must obtain for licensure and national certification.

A study by Yu et al. (2021) explains that the historical lack of acknowledgement and guidance by ASHA and accreditation standards are contributing to unregulated DEI standards within speech-language pathology academic programs. The lack of transparency and accountability from regulating agencies will make it significantly easier for speech-language pathology academic programs to exclude university students of color and continue to perpetuate white supremacy culture in graduate programs. This lack of guidance also establishes the idea of color-blindness, further providing racist expectations toward students of color.

White supremacy culture is particularly important to note how it impacts speech-language pathology graduate programs in implementing DEI within their curriculums. White supremacy is the belief that white people are superior to racially and ethnically diverse people. This idea has been present since the early days of the U.S. and is still found within our society today (*Whiteness*, n.d.). White supremacy is rooted within speech-language pathology, down to its name (Privette, 2021). Speech-language pathology has a long history of overidentifying speech and language disorders in racially and ethnically diverse groups, neglecting non-mainstream dialectic and linguistic differences, and creating stereotypes.

Some programs have adjusted to become more inclusive to students of color through admissions and curricular and policy revisions. For example, the Council for Academic Accreditation (CAA) requires graduate programs to provide cultural responsivity training to SLP students and it is most common for graduate programs to infuse culturally responsive education throughout the curriculum or to have their own cultural responsivity course (Ebert & Williams, 2023; Guiberson & Vigil, 2021a). Although this is now required, a study by Guiberson and Vigil (2021b) indicates that over 40% of graduate programs that implement traditional graduate admissions report that they do not prepare students for working with racially and ethnically diverse clients.

## Admissions Process

A study by Kovacs (2022) found that grade point average (GPA) and Graduate Record Examination (GRE) scores were significant predictors to graduate admission at one speech-language pathology graduate program. The findings indicated that both GPA and GRE scores were lower for non-white students, creating a barrier to admission into the program. The study also indicated that white students had a higher chance of getting admitted with a higher GRE score compared to similar high scores from non-white peers. GPA and the GRE both have a history of systematic racism. A student's race and family income play a significant role in these scores. Within areas of high racial diversity and low-incomed families, students may have unequal and insufficient opportunities for education and counseling. These inequalities will impact GPA and GRE scores and escalate barriers towards admission into higher education (Guiberson & Vigil, 2021a; Kovacs, 2022). Possible biases and grade inflation may also factor into scores (Boles, 2018).

There are a variety of barriers that contribute to a lack of admittance and success within graduate programs. These factors include finances, family and work obligations, emotional support and mentorship, program location, and graduate admission requirements such as standardized testing and low student representation within programs (Cleveland et al., 2023; Fuse & Bergen, 2018; Lugo et al., 2023).A study by Watts et al. (2022) used the Communication Sciences and Disorders Centralized Application Service (CSDCAS) to investigate how academic and socioeconomic factors impact graduate admission. Applicants given one or more offers by graduate schools were often younger (17-22 years old), came from a higher socioeconomic status (SES), were white, monolingual, and had parents who received a college education.

Guiberson and Vigil (2021a) also gave a survey to speech-language pathology graduate student cohorts around the country. Survey respondents reported that they believed only 29% of students of color had barriers when being admitted to graduate programs. It should also be noted that students reported less than 10% of students within their cohort were racially diverse. This data is alarming because it implies white students are unaware of the inequities and barriers students of color face. The lack of awareness of white students may suggest an absence of safe spaces for students of color within graduate programs. This study may also indicate that although some students of color are being admitted into speech-language pathology programs, it is not enough to change the disproportionality and equity issues the field is facing today.

## Curriculum and Policies within Speech-Language Pathology Programs

Once a student is admitted into a graduate program, they often experience harmful microaggressions by faculty, staff, other students and through the curriculum itself. Students of color note a prominent microaggression is the feeling of "otherness" by faculty, staff, and peers

(Abdelaziz et al., 2021). Lack of faculty and staff of color have impacted the ability for students of color to feel seen. This lack of diversity among faculty impacts the ability to successfully recruit students of color, aids in the lack of mentorship and sense of belonging students of color feel in speech-language pathology programs (Muñoz et al., 2023; Mahendra & Kashinath, 2021). The result is that white faculty need to be inclusive and equitable in their teaching, mentorship and advising. All faculty have the unique responsibility to establish an environment of equity and belonging within graduate programs (Abdelaziz et al., 2021).

The curriculum also proposes unique challenges to DEI. DEI is often glossed over in the curriculum, and instruction often varied between instructors and programs (Stockman et al., 2008). The effects of limited education in DEI are detrimental to workforces, including speech-language pathology. These effects are believed to increase misidentification, create racist practices, and impact outcomes in health and education (Wong et al., 2021; Yu et al., 2021). The current study will expand on previous studies by analyzing how programmatic changes increase preparedness in working with racially and ethnically diverse clients and exploring student's perceptions of these changes.

Overall, the field of speech-language pathology faces multiple layers of systemic inequities, lack of diversity and challenges in the DEI space including specific challenges in medical settings, educational settings as practitioners, and barriers and harm being enacted across speech-language pathology graduate academic programs. This study seeks to explore changes made in a specific graduate speech-language pathology program to address diversity, equity and inclusion within the academic program to eliminate barriers to students of color but also to educate all speech-language pathology graduate students to be more inclusive and socially just in their own practice.

**Methods**

The purpose of this mixed methods study is to evaluate how changes made in a graduate speech-language pathology program's focus on DEI in clinical education and academic coursework impacted students specifically in preparing graduate students in culturally relevant, antiracist assessment and intervention practices in speech-language pathology. To do this, the author explored the differences between two cohorts of graduate students, one cohort being before the program was equity-focused and purposefully recruited students of color (2022 cohort or Year 2 cohort), and the other cohort being after changes were made to the program (2023 cohort or Year 1 cohort). Specifically, the author poses four research questions:

1. Are there differences between student cohorts in terms of perceptions of effective clinical education in culturally relevant and antiracist practices?

2. Are there differences between student cohorts in terms of perceptions of effective academic programming to prepare students in culturally relevant and antiracist practices?

3. How do students describe their experiences learning culturally responsive and antiracist assessment and intervention practices?

4. How do students describe their experiences with programmatic changes in diversity, equity and inclusion?

**Setting / Context**

Research was conducted at a mid-sized regional state institution that is accredited in a variety of undergraduate, pre-professional, and graduate programs in the Midwest (referred to as the University). The University has over 14,000 total enrollments with 15% of students of color

and 13.7% employees of color. The University's state system has made an institutional commitment to increase the success of underrepresented populations across many areas within the university, one being academic success of students of color. This states that by the year 2030, the University commits to "eliminate the educational equity gaps for first generation students, low-income students, indigenous students, and students of color at every State college and university." (*Equity 2030*, n.d.). This commitment is not an initiative, rather, an approach to mindfully rethink the University's entire system to promote culturally responsive practices and equitable outcomes.

Alongside this, the speech-language pathology program at the University was dedicated to racial equity and demonstrated this with a statement and actionable goals. A statement that was published in the summer of 2020, titled "Statement on Dismantling Racism and Striving for Equity" that identified and acknowledged racism and biases that occurs in speech-language pathology and audiology and highlighted the changes the department would implement in DEI (*Dismantling Racism Statement*, n.d.). The new program design included adding new courses to the curriculum that centered diversity, equity, and inclusion (DEI), professional development for faculty in Diversity, Equity and Inclusion.

The speech-language pathology program continued to take necessary steps in the summer of 2020 to build a new, more equitable program. Students who applied to the graduate program were no longer required to take the GRE due to its history of racial and ethnic bias. Applicants were required to address DEI in their personal essays. Further, the department has committed to using a holistic approach to review prospective graduate students.

Multiple studies have reported the benefits of a holistic approach to graduate admissions (Wong et al., 2021; Kovacs, 2022; Lugo et al., 2023; Mandulak, 2021; Guiberson & Vigil,

2021b). The Association of American Medical Colleges (AAMC) is a trailblazer in discussing holistic review processes:

> "Holistic Review refers to mission-aligned admissions or selection processes that take into consideration applicants' experiences, attributes, and academic metrics as well as the value an applicant would contribute to learning, practice, and teaching. Holistic Review allows admissions committees to consider the "whole" applicant, rather than disproportionately focusing on any one factor." (*Holistic Review*, n.d.)

Holistic admission does not admit students solely on test scores. Holistic admission limits the weight of grades and test scores and instead highlights speech-language pathology and research experiences and letters of recommendation (Lugo et al., 2023). Holistic admission acknowledges a variety of student strengths and determines admission based on the best fit for the program and student. A student's personal attributes and experiences also help create a well-rounded student (Mandulak, 2021). Letters of recommendation and personal statements are subjective and unbiased. These forms of personal reflection allow the admission committee to examine attributes related to motivation, confidence, and drive. These documents play an important role in the holistic review process (Lugo et al., 2023; Kovacs, 2022). Overall, holistic review admission tells the complete story of a student applicant.

All applicants who identified themselves as students of color were scored through the holistic admissions process, but applications were reviewed separately from white students. A small team of professors examined these to select at least 10 students of color to be admitted to the graduate program. These student applications were then brought to the full faculty for approval.  All graduate student applicants who were admitted to the program and who identified themselves as people of color were now eligible for the Diversity and Inclusion Fellows cohort.

This is an affinity group within the speech-language pathology graduate program. The goal of the cohort is to not only recruit and retain people of color in speech-language pathology, but also create a sense of community and belonging for racially and ethnically diverse studen. These students benefitted from receiving mentorship from faculty members of color, having opportunities to discuss experiences with racism and inequity, learning self-advocacy strategies, and helping the speech-language pathology department in DEI efforts (Scott, 2023).

The program also focused on recruitment and retention of both tenure-track and adjunct faculty of color. The program hired its first Black tenure-track faculty member. Curriculum changes were also implemented, such as introducing and improving coursework to address diversity, equity, and inclusion in speech-language pathology in both graduate and undergraduate coursework. These courses included "Cultural Humility", "Culturally Responsive Practices", "DEI in SLP Education Settings", and "DEI Seminar". "Cultural Humility" is an undergraduate course that includes an introduction to cultural humility and self-reflection. Students will gain a beginning understanding of DEI, intersectionality, and therapeutic relationships, relating to speech-language pathology. "Culturally Responsive Practices" is a first-year graduate course. It involves a more application-based approach to learning culturally responsive assessment and intervention techniques. "DEI in SLP Education Settings" is a first-year graduate course that allows students to demonstrate a higher knowledge and application of topics such as integrity, counseling, and social justice. Students will also learn about school systems and ethics. "DEI Seminar" is an elective second year graduate course. In this course, students will learn how to initiate and maintain therapeutic relationships in speech-language pathology. This course involves discussing concepts such as vulnerability, empathy, and therapeutic bonds. All these courses aimed to improve DEI within the speech-language pathology program.

Faculty and staff participated in both whole-group and individual professional development in anti-racist and cultural responsivity with a focus on equity and racial equity. These were mandated by the department, and faculty were compensated for participating in intensive educational experiences. A student-led Strategic Task Force was also created to provide mentorship to students and continue work in diversity, equity, and inclusion. The Task Force included the diversity and inclusion cohort, racially and ethnically diverse undergraduate students, the SLP program department chair, and two faculty members of color. The intention of the Strategic Task Force was to provide mentorship and DEI collaboration between students of color and faculty of color. This group would meet biweekly to discuss education of DEI, examining research, and planning outreach events (Scott, 2023).

In fall 2021, based on progress and challenges, a small departmental workgroup focused on equity, partnered with the Center for Excellence in Teaching and Learning (CETL) to conduct an action research project to explore how changes implemented were impacting students in the speech-language pathology graduate program. The purpose of the action research project was to examine how students of color and white students were impacted by the curricular changes implemented. This action research project then grew into a formal research project.

**Participants**

Participants involved in this study included the 2022 and 2023 speech-language pathology graduate student cohorts at Minnesota State University, Mankato; also referred to as Year 1 (2023) and Year 2 (2022) cohorts. All 72 students in each cohort (31 in the 2022 class, 41 in the 2023 class) were invited to participate in this study. An email was sent out to all graduate students from a graduate student researcher from a separate program. Following the survey, the

action research team worked together to develop focus groups. Focus groups were completed only with the 2023 cohort and included one group of students of color, and two groups of white students. The students were selected based on various educational backgrounds, interests and the ability to feel comfortable with their group members to share. For example, we purposely put people together in a focus group who would self-select to sit by each other in class and work on class projects together.  Participation was voluntary and they were not compensated for completing the survey or focus group.

**Demographics of the Speech-Language Pathology Program**

The graduate students in the 2022 and 2023 cohorts were even more limited than the diversity shown overall of CSDCAS applicants (refer to Table 6). It should be noted that due to the revisions of the admission process, the students in 2023 cohort were significantly more racially diverse than 2022.

**Table 6**

*Identified Race of Year 1 and Year 2 Speech-Language Pathology Graduate Students*

| Identified Race | Year 1 Graduate Students (2021-2023) | Year 2 Graduate Students (2020-2022) |
|---|---|---|
| Arab or Arab American | 0 | 0 |
| Asian or Asian American | 3 | 1 |
| Black or African American | 3 | 0 |
| White or European American | 35 | 21 |
| Hispanic or Latino/a/x or Chicano/a/x | 1 | 0 |
| Middle Eastern | 0 | 0 |
| Native American and/or Alaska Native | 0 | 0 |
| Native Hawaiian and/or Pacific Islander | 0 | 0 |
| Native American/First People | 0 | 0 |
| Another Group Not Listed | 0 | 1 |
| Multiracial (2+ Races) | 2 | 2 |

**Procedures**

Through work with the Center for Excellence in Teaching and Learning (CETL), a research focus was determined based on conversations with the workgroup. The survey was developed and administered. After reviewing that data, the team decided to proceed with focus groups. All the research endeavors were guided and implemented by CETL. This study was mixed methods, and specific procedures are discussed by the methodology used in analysis.

*Quantitative Procedure*

A survey was adapted from a survey created by the University of Southern California Race and Equity Center.The survey's items directly aligned with the learning outcomes of the University and the speech-language pathology graduate program and were adapted to meet its needs. The survey was created using Qualtrics. Demographic data was requested, including

gender and race, but students were otherwise unidentifiable. The survey included multiple choice and rating scales. Rating scales asked participants to select a response on a rating scale that best reflected themselves on a certain topic. Examples of questions include, "How effective was your coursework at preparing you to recognize culturally relevant/sustaining, antiracist intervention practices in an educational setting?", "How effective were your clinical supervisors in encouraging your to reflect on your own racial bias?", and "How effective was your coursework in preparing you to interact with clients, family members, and caregivers in a culturally relevant/sustaining, antiracist manner?".

The questions were designed to address the academic nature of the program (coursework) and its clinical aspects (practicum and internship). Students in the 2023 cohort did not have as many clinical experiences and were halfway through their coursework. These students would be reflecting mostly on their on-campus clinical experiences. Whereas the students in the 2022 cohort would be mostly complete with their academic coursework and would be reflecting on their clinical experiences in internships which were much more extensive. Examples of questions are: These questions were selected again, to get the best sense of how students felt DEI was implemented and enacted in their courses and clinical work. The survey is available in Appendix A.

### Qualitative Procedure

A mix of students were selected to be in the focus groups. After the survey was completed, students from the 2023 cohort were divided into three focus groups of four to five students each. Focus groups included one group of students of color and the remaining groups were completely made up of white students. Focus group questions were created to gain a deeper

look into student perceptions and examples include, "What are some examples of culturally relevant or culturally sustaining antiracist assessment practices that you have learned about or tried?", "Have your clinical supervisors prepared you to work with clients, family members, or caregivers in a culturally relevant or sustaining antiracist manner? If so, how?", and "Have your ideas about diversity, equity, or inclusion changed during the program? If so, how?".

Focus group questions were created to gain a deeper look into student perceptions. To limit bias, a member of CETL conducted the focus groups via a video conferencing platform. Student responses were transcribed and recorded. Identifiable information was redacted by CETL. Year 2 students did not do focus groups as they did not have the programmatic changes. Focus group questions are available in Appendix B.

**Research Question 1: Effective Clinical Instruction and Preparedness for Culturally Relevant/Sustaining Care**

To answer this question, both survey and focus group answers were explored (see Table 6) The survey data included the following questions were asked to participants about the effectiveness of supervisors and clinical experiences in preparing students to recognize culturally relevant/sustaining, antiracist assessment and intervention practices as well as interacting with clients, family members, and caregivers in a culturally relevant/sustaining and antiracist manner: (Q14, Q15). An independent samples t-test was used to determine if there were significant differences between the 2022 and 2023 cohorts. The following questions were asked to the 2023 students in focus groups: (Q2, Q4, Q5, Q6, Q7). This data was analyzed by using a grounded approach and analyzing the responses to determine themes.

**Research Question 2: Effective Coursework and Preparedness of Culturally Relevant/Sustaining Care**

To answer this question, both survey data and focus group answers are explored (see Table 7). The survey data included following questions were asked to participants about the effectiveness of coursework to prepare students to recognize culturally relevant/sustaining, antiracist assessment and intervention practices in medical and educational settings: (Q10, Q11, Q12, Q13). An independent samples t-test was used to determine if there were significant differences between the 2022 and 2023 cohorts. The following questions were asked to first-year graduate students in focus groups: (Q1, Q3). This data was analyzed by using a grounded approach and analyzing the responses to determine themes.

**Table 7**

*Quantitative and Qualitative Data Sources Comprising Research Questions*

| Research Question | Quantitative Data Source | Qualitative Data Source |
|---|---|---|
| 1. Effective Clinical Instruction and Preparedness for Culturally Relevant/Sustaining Care | **Q14:** How effective were your clinical supervisors at preparing you to recognize culturally relevant/sustaining, antiracist assessment practices?<br><br>**Q15:** How effective were your clinical supervisors at preparing you to recognize culturally relevant/sustaining, antiracist intervention practices?<br><br>**Q24:** How effective were your clinical supervisors in preparing you to interact with clients, family members, and caregivers in a culturally relevant/sustaining, antiracist manner? | **Q2:** Describe a time that you felt confident that your assessment practices were culturally relevant or sustaining and antiracist.<br><br>**Q4:** Describe a time when you felt confident that your intervention practices were culturally relevant or culturally sustaining and antiracist.<br><br>**Q5:** What are some examples of how you have worked with clients, family members, or caregivers in culturally relevant or sustaining antiracist ways?<br><br>**Q6:** Have your clinical supervisors prepared you to work with clients, family members, or caregivers in a culturally relevant or sustaining antiracist manner? If so, how?<br><br>**Q7:** Have your ideas about diversity, equity, or inclusion changed during the program? If so, how? |
| 2. Effective Coursework and Preparedness of Culturally Relevant/Sustaining Care | **Q10:** How effective was your coursework at preparing you to recognize culturally relevant/sustaining, antiracist assessment practices in a medical setting?<br><br>**Q11:** How effective was your coursework at preparing you to recognize culturally | **Q1:** What are some examples of some culturally relevant or culturally sustaining antiracist assessment practices that you have learned about or tried?<br><br>**Q3:** What are some examples of culturally relevant or sustaining antiracist |

| | | |
|---|---|---|
| | relevant/sustaining, antiracist intervention practices in a medical setting? | interventions that you have learned or tried? |
| | **Q12:** How effective was your coursework at preparing you to recognize culturally relevant/sustaining, antiracist intervention practices in an educational setting? | |
| | **Q13:** How effective was your coursework at preparing you to recognize culturally relevant/sustaining, antiracist assessment practices in an educational setting? | |
| 3. Student Experiences of Learning Culturally Relevant/Sustaining Care | | See Appendix B for focus group questions |
| 4. Student Experiences with Programmatic Changes | | See Appendix B for focus group questions |

**Research Question 3: Student Experiences of Learning Culturally Relevant/Sustaining Care**

To answer this question, focus group answers were explored. This research question followed a qualitative descriptive research design. Focus group transcriptions were collected. Data was analyzed by thematic analysis. This approach involves engaging with the data, using a codebook to note initial codes, and identifying and naming themes from initial codes, and extracting relevant themes. The focus group questions asked about student's experiences of learning culturally relevant and sustaining care within the graduate program. Refer to Appendix B to read focus group questions.

**Research Question 4: Student Experiences with Programmatic Changes**

To answer this question, focus group answers were explored, also using the thematic analysis approach described in Research Question 3. The focus group questions asked about student's experiences with programmatic changes.

## Results

**Quantitative Data Results**

The study obtained quantitative data to examine the effectiveness of clinical instruction and coursework due to programmatic changes in equity and inclusion in a speech-language pathology graduate program. Both cohorts of 2023 and 2022 graduate students used Qualtrics to complete a survey. Participants rated the survey on a 5-point scale: not effective at all, slightly effective, somewhat effective, quite effective, and extremely effective.  Results will be explored through the research questions:

1. Are there differences between student cohorts in terms of perceptions of effective clinical education in culturally relevant and antiracist practices?

2. Are there differences between student cohorts in terms of perceptions of effective academic programming to prepare students in culturally relevant and antiracist practices?

**Research Question 1: Clinical Instruction and Preparedness for Culturally Relevant/Sustaining Care**

Three survey questions (Q#14, 15, 24) (see table A) asked about effectiveness of clinical education to recognize culturally relevant, antiracist practices in assessment practices,

intervention practices, and preparedness to interact with clients, family members, and caregivers.

Significant differences (p<0.01) were found in supervision effectiveness in culturally relevant, antiracists practices in assessment and intervention from 2023 cohort (m=4.41, SD=0.62) and 2022 cohort (m=3.69, SD=0.63). This indicates that students in their first year of graduate program (with the additional clinical instruction, guidance and feedback related to culturally responsive practices) felt their clinical instruction was more helpful in understanding these practices than students in their second year where they did not have specialized coursework in DEI.

**Research Question 2: Coursework and Preparedness of Culturally Relevant/Sustaining Care**

Two survey questions (Q#10, 11) were asked about coursework effectiveness to recognize culturally relevant, antiracist practices in assessment and intervention in a medical setting. Further, two questions (Q#12, 13) were asked about assessment and intervention in a school setting.

Significant differences (p<0.01) were found in coursework effectiveness for preparation of culturally relevant, antiracist practices in a medical setting from students in their first year of the graduate program (m=4.28, SD=0.68) and Year 2 (m=3.66, SD=0.79). This means that students in their first year (with the additional coursework and experiential learning related to culturally relevant practices in a medical setting) felt their coursework effectiveness was more beneficial in understanding these practices than students in their second year who did not have this coursework.

Significant differences (p<0.01) were found in coursework effectiveness for preparation in a school setting from students in their first year of the graduate program (m=4.5, SD=0.57) and the students in their second year (m=3.96, SD= 0.69). This indicates that students in their first year (with the additional coursework and experiential learning related to culturally relevant practices in a school setting) felt their coursework effectiveness was more beneficial in understanding these practices than students in their second year who did not have this coursework.

Overall, results indicate that students in their first year (2023) felt their clinical instruction and coursework were effective in increasing their knowledge and understanding of cultural responsibility both the medical and educational setting in comparison to those in their second year (2022) graduate students.

**Qualitative Data Results**

The researchers used a thematic analysis approach to compile themes to answer the research questions. Three themes emerged: student knowledge and skill development, student feelings about programmatic changes, and program and instructor journey. Results will be explored through the research question:

3. How do students describe their experiences learning culturally responsive and/or antiracist assessment and intervention practices?

4. How do students describe their experiences with programmatic changes in diversity, equity and inclusion?

**Research Question 3: Student Experiences of Learning Culturally Relevant/Sustaining Care**

*Student Knowledge and Skill Development*

Theme one demonstrates how students in their first year (2023) developed knowledge and skills as a result of programmatic changes in the areas of clinical work/experiences and academic content. These graduate students described a variety of culturally responsive evaluation and assessment techniques that they learned about in courses and/or could use in their clinical experiences. During the focus group, a student participant noted the importance of culturally responsive assessments, "Informal language samples would be culturally responsive, because you can't really get those from your typical assessments. Another student participant mentioned the importance of interviewing the client and their family.*"*

"It's very important to get the ethnographic interviewing first and understand the family dynamics before you can proceed."

Another student participant included the necessity of using representative materials in therapeutic settings. "We had to be incorporating materials that were representative of the clients' culture and their race so whether through books, songs, anything like that and having those conversations with your kids and being open to that versus it being kind of shut out."

These responses demonstrate that the coursework impacted students at a level where they felt they could implement this knowledge and skills into practice.

Graduate students demonstrated understanding of cultural humility, conceptually, describing lifelong learning and reflecting on biases. A student participant stated*, "*I am assessing my own bias and how that makes me as a clinician.*"* Another student participant brought up the supportive environment for discussion surrounding cultural humility. "It has been

nice having those conversations being in a supportive, safe environment we can talk about with our peers.*"*

Graduate students discussed practical experiences where they could develop and implement culturally responsive practices. A student participant mentioned:

"In [Professor 1's] class we actually went to the parents' house and observed the child in their natural setting. It was really important to consider cultural differences because even walking into the house we took off our shoes, or the mother seemed a little bit more reserved. It was in my mind just recognizing that I am a stranger in her home and maybe I don't do the same thing. Because this is their environment, being sensitive with the parent and recognizing that this is just kind of uncomfortable. You don't know me, I am here to help your child but I am in your environment."

First year graduate students were truly learning how to be open to other cultures and ways of being through an open and supportive classroom teaching, again developing a mindset that would be implemented in later clinical experiences.

### *Student Feelings about Programmatic Changes*

Theme two demonstrates how students described their feelings about the program as a result of the programmatic changes. Graduate students described positive interpretations and feelings around programmatic changes. During the focus group, one student participant recalled their beginning days in graduate school and reflected on their growth:

"When I first got to grad school, I remember the first day of our multicultural class was very intimidating because as a white person, I already felt like I didn't want to say something that would come off wrong even though I was attempting to grow in that area.

By the end of the course, I felt like you can have safe and comfortable conversations about race, culture, and ethnicity without coming off as this white person who has no idea what they're talking about. I was provided with enough support to realize that it is okay to recognize things that are not okay, and that it is okay to talk about it. I have changed and feel more secur*e."*

Another student participant stated their thoughts on the environment of the program. "I think our program has a really great environment as to where I feel very comfortable reaching out to any professor in the program, so I think that has a large part to do with how much support that I feel like I am getting and when I feel like I need it I feel comfortable enough to ask." Another student participant noted the strong support from professors. "I was thinking about it before like who is really there in my corner, who understands what I'm doing, and what the point of what we're doing is. And it is our multicultural professors."

First year graduate students described areas of weakness and identified areas of future growth for the program. A student participant stated the lack of consistency in being culturally responsive. "I do see our other supervisors, there are attempts at times, but I just do not necessarily feel like it is always consistent." Another student participant mentioned the lack of diverse clientele being a weakness in the program. "I haven't had any culturally diverse clients, so I don't really know how to answer these questions just because I haven't had clients like that before."

 This demonstrates that students' awareness and expectations from their graduate program increased based on their academic coursework.

**Research Question 4: Student Experiences with Programmatic Changes**

*Program and Instructor Journey*

Theme three shows how students described the equity-centered journey of the program, including changes to curriculum and professor and clinical supervisor actions. First year graduate students described a variety of strengths for professors. During the focus group, a student participant stated, "I have come to accept being a part of this program and through our professors supporting us, modeling those things, and having those discussions. Just realizing it is okay not to know everything about those topics and that's part of what it means to be culturally appropriate." Another student participant brought up their confidence in supporting clients of color based on resources they received from professors. "I feel like they provided us with resources and lectures that have made me feel knowledgeable enough for the basis. I feel like our professors and supervisors in general provided us with in-depth research. I can provide the resources that I've been getting so that I just feel more confident in supporting my clients in the way that they should be supported."

Graduate students described strengths of clinical supervisor and/or clinical experiences. A student participant noted, "She has given helpful feedback with interacting with families and that has been incredibly helpful." Another student participant said, "She was very hands-on and saying to try different things and she just made it in a way that I didn't feel attacked, or she was telling me I'm wrong. I would say overall I've had positive experiences with all of my supervisors."

Graduate students described weaknesses of clinical supervisor and/or clinical experiences. A student participant mentioned the lack of utilization of culturally responsive practices outside of the classroom. "But in terms of my other supervisors, the application isn't

reinforced in clinic." Another student participant noted the lack of follow-through and feedback being a weakness. "There is not much opportunity for follow up with those other supervisors, which I think would be incredibly beneficial to us."

Graduate students described their perceptions of the departmental journey. A student participant noted the increased awareness of cultural responsivity within the program:

"The faculty and staff, they have really nailed it in my head, the importance that it really is about diversity and equity and the idea that we need to be more aware of what we do…more aware of how we say things and how we approach a treatment or an assessment. I want to make sure that this is a safe space for everyone, including my clients and their families."

Another student participant brought up the strengths of having culturally and racially diverse professors within the program:

"I also think that because we have a diverse faculty as well it has also changed my idea about it because I also came in thinking that I would only have white, female professors. I was surprised seeing [Professor 1] and [Professor 2] here and I was like, okay, they actually have a good example for us to see and teaching based on their own experiences is helpful."

Another student participant stated their experiences of seeing equitable change within the program. "I got to see what it looks like for those in power to really advocate for changes and I am surprised that it is not in the Cities where I found that but in a small town."

Student participants also acknowledged weaknesses within the program and areas of growth that are still needed. One student participant mentioned the lack of implementation of DEI within all academic courses. "Every professor specializes in something so there are almost

categories. I feel like multicultural and diversity is almost its own category instead of just being widespread throughout all of the categories." Another student brings up a similar weakness regarding professor comfort in incorporation of DEI, stating, "Focusing on issues of culture is something that's happening in a pocket or in certain spaces and it isn't necessarily one thing that people do but it isn't necessarily happening in all spaces. Different people have different comfort levels in terms of integrating."

 Students recognized programmatic improvements within the program and faculty. These participant answers show that students are beginning to acknowledge and accept the SLP department's goals.

## Discussion

Transforming academic programs is the first step to action in creating an equitable space for people of color in society (Ellis et al., 2021). The quantitative results of this research study indicate that programmatic changes did in fact increase student perceptions of their own preparation to work with racially and ethnically diverse clients in a speech-language pathology program.

Even in the application process, prospective students were aware of the importance of DEI in this speech-language pathology program by requiring graduate applicants to discuss DEI on personal statement. Discussing DEI in personal statements sets the priority prior to being accepted. Hopeful graduate students acknowledge and understand this is an essential part of the program. This change may have impacted the feelings surrounding the program and DEI as these students knew DEI was an importance initially.

In addition, revision of the curriculum including adding two specific courses on diversity, equity, and inclusion (DEI) and updating other graduate courses to include DEI content was completed systematically with all faculty. While this did not automatically imply that faculty were competent in teaching those components of the course, it did emphasize with students the importance of DEI in the work of a speech-language pathologist. Improving courses may increase group and self-reflection related to cultural responsivity and antiracist practices among department faculty. These discussions then have the power to make continuous actionable changes within the program (Wong et al., 2021).

Starting the affinity group (the Diversity and Inclusion Fellows) cohort within the program allows racially diverse students to feel a sense of belonging and safety in a racially homogenous field. Creating a diverse cohort of graduate students may create more well-rounded students with differing life experiences (Guiberson & Vigil, 2021a). Alongside this, increasing mentorship opportunities for racially diverse students improved relationships and trust within the program. Racially diverse students felt more comfortable sharing feelings and perspectives with racially diverse faculty. In addition, the white students benefited from being in a cohort that more accurately represents the racial/ethnic make-up of the greater community.

Recruiting racially diverse faculty improved coursework and clinical experiences due to the faculty's personal experiences. A faculty member of color began teaching the diversity, equity, and inclusion course and revised the learning outcomes. Previously, this course focused on cultural competency. The new professor shifted this course from cultural competency to aligning with cultural responsivity, equity, and inclusion. They also included discussions of inequities of systems and principles. These discussions are essential to effective careers as speech-language pathologists as these systems impact our clients in healthcare and educational

settings. Other effective changes in curriculum and coursework included changing the name of the graduate diversity, equity, and inclusion course, "Culturally Responsive Practices in Speech, Language, and Hearing Sciences", further establishing the new culturally responsive verbiage and framework.

Second year graduate students, who did not receive the programmatic changes, had lower perceptions of preparation and confidence with racially and ethnically diverse clients compared to first year graduate students who did have the implemented changes. This means the multi-faceted changes in the areas mentioned above have improved perceptions of knowledge in effectively providing assessment and treatment to racially and ethnically diverse clients.

The qualitative results of this study related to student experiences related to learning culturally relevant and antiracist care indicated two main themes: student knowledge and skill development, and student feelings of programmatic changes.

Students described new development and learning within the program and identified three critical components: evaluation and assessment techniques, cultural humility, and practical experience. Students discussed various dynamic and non-standardized techniques that were learned and practiced in coursework. Students demonstrated knowledge in family-centered, culturally relevant therapy. Students also acknowledged multiple opportunities they could apply their learning in experiences such as case studies and clinical observation.

Students described feelings of programmatic changes and identified two critical components: positive student perceptions and perceived lack of confidence and skills. Students acknowledged increased confidence and growth related to their skillset. This was a primarily white university in a primarily white region of a midwestern state in a profession that is primarily white. Some white students in the Year 1 graduate program stated they were intimidated about

talking about race with people of color. Themes indicated that as time in the graduate program continued, students felt more comfortable and confident talking about race to their professors and peers. Also, students reported positive client outcomes due to their knowledge in cultural responsivity. When students are trained in cultural responsivity, clients may feel more comfortable and invested in their therapy.

In contrast, students also recognized instances of a lack of confidence and skills. A large majority of students commented on the lack of experience with racially and ethnically diverse clients within clinical settings. It should be noted that increasing exposure to racially and ethnically diverse clients is not the resolution to confidence and competency in cultural responsivity. Experiences with these clients without the necessary preparation may be harmful to clients. It is essential to first gain the foundational knowledge in cultural responsivity before putting it into practice. With this programmatic shift to increase equitable spaces, there may also be an increase in racially and ethnically diverse clients within clinical settings.

An important finding is that although qualitative themes indicated that graduate students felt that clinical experiences did not change, just the effect of robust and purposeful DEI courses as well as embedding DEI in other academic courses was enough to impact how students felt clinically regarding their skills to be culturally responsive. The coursework included application-based, real-life scenarios that allowed students to develop practical skills in preparation to interact with culturally and linguistically diverse clients in the future. The coursework provided an essential foundation for students to be prepared to use their knowledge in their careers later, although there was lack of client diversity within the university clinical setting.

The qualitative results related to the student perceptions of the overall equity journey of the program and instructors identified three critical components: professor strengths, clinical

instructor strengths and weaknesses, and department journey. Students recognized clinical instructor strengths of providing feedback, support, and encouragement. Instructors provided culturally responsive, evidence-based practices to students. However, students noted clinical instructor weaknesses including lack of support and expertise in cultural responsivity.

Students also described the department's efforts toward cultural responsiveness. Students felt that cultural education was being discussed throughout the curriculum with all faculty. Students enjoyed that the faculty was diverse, meaning they would gain valuable perspectives to use in their career. Students felt that department faculty were strong advocates for racially and ethnically diverse clients, which made them feel more confident in their education.

These findings suggest that programmatic changes to university speech-language pathology programs centered around DEI may increase feelings of confidence and preparedness for graduate students. In turn, this may support improvements in feelings of safety, belonging, and clinical outcomes for racially and ethnically diverse clients. Also, these findings support the continued efforts to diversify speech-language pathology programs and create equity within programs. Within the recent years, the emphasis has been on diversifying speech-language pathologists. While this is a necessity in our field, the initial priority must be to develop and demand equity and inclusion for people of color. We cannot have a diverse field if we do not have a space for racially and ethnically diverse individuals.

A combined, synergistic approach of establishing diversity, equity, and inclusion in all facets of the program, including revising the curriculum, setting specific goals, requiring graduate applicants to discuss diversity, equity and inclusion on their personal statement when applying, starting a diversity cohort, recruiting racially diverse faculty, and increasing mentorship opportunities for racially diverse students. If this widespread effort of programmatic change was

not completed, the author does not believe student perceptions of knowledge, preparedness, and cultural responsivity would be as transformative.

**Recommendations**

There are various recommendations that programs can implement to create a more equitable space. First, it is essential that programs use a holistic approach when determining applicants. Mandulak (2021) explains how graduate programs can begin implementing holistic admissions. This includes a variety of steps, including ongoing analysis of the process, listing nonacademic factors that may be used for admission decisions, seeking support from national stakeholders such as ASHA, collaboration across professions, and a call for research to expand on previous evidence of holistic review for further support. These steps may require additional steps by the admission committee, but it is a major factor in not only diversifying the field of speech-language pathology, but also creating a more equitable playing field for students of color.

Implementation of diversity, equity and inclusion (DEI) within coursework relies heavily on professors. Programs must remain intentional with integrating DEI education within all areas of the graduate coursework. Continuous self-reflection on the way DEI information is spread throughout the program will ensure the department is engaging in culturally responsive practices (Hammond et al., 2009; Wong et al., 2021). Relating coursework back to DEI and racially and ethnically diverse clients will help support students when they are providing services in the future. Including DEI should not be an afterthought, rather the focus that guides all decisions. An initial way that this might be done is to include DEI within important course documents, such as the syllabus. Revamping the course syllabi can be an influential tool to use to showcase the value

of DEI even before the course begins. Syllabi and other course documents can establish expectations and respect for DEI (Simon Cereijido et al., 2023).

Another important implication relates to increasing diversity within the cohort. This starts with increasing awareness of speech language pathology. In a study by Richburg (2022), racially and ethnically diverse groups had less knowledge and awareness of the profession of speech-language pathology. Richburg explains that if friends and family continue to not pursue speech-language pathology as a degree, there will be a continuous cycle of non-exposure to the populations we need most. Programs can create open houses, participate in career fairs, and introduce community partnerships to increase recruitment (Mohapatra & Mohan, 2021; Richburg, 2022).

The work does not stop once racially and ethnically diverse individuals are admitted into CSD graduate programs. Previous studies explain that speech-language pathology graduate students of color have provided recommendations for recruitment and retainment of students of color. This includes programs requiring faculty education in DEI, providing connections and mentorship opportunities with faculty of color, access to more financial and emotional support resources, and an overall increase of diversity within cohorts (Roberts, 2023; Fuse & Bergen, 2018).

With the absence of change in ASHA's policies and standards to acknowledge and disrupt racism, it may further imply to racially and ethnically diverse populations that they are not welcome within this field (Yu et al., 2021). ASHA must take immediate and intentional action to provide additional support for racially and ethnically diverse speech-language pathology students, clinicians, and professors.

White students and faculty alike are beginning to acknowledge the White privilege, systemic racism, and importance of DEI within academia (Howells et al., 2016; Ebert & Williams, 2023). Students may begin to seek out graduate programs that value and prioritize DEI (Cleveland et al., 2023). Introducing only one or a few of these supports will not be enough. To see significant change, we must implement a wide array of support to reach our goals of increasing diversity, equity, and inclusion in speech-language pathology programs.

**Limitations**

There were some potential weaknesses within this study. The first limitation was researcher bias. The researcher describes themself as a White, non-Hispanic, cisgender woman. The researcher is not racially or ethnically diverse and does not have the lived experiences of a culturally and linguistically diverse individual. The researcher may hold unknown perceptions and biases. Because of this, there may be limitations to the study. The second limitation was participant response bias. Focus group participants may have felt obligated to agree with other participants to limit conflict. The third limitation was the sample size. This predominantly White group of midwestern students only represents a small number of students across the entire United States. The experiences of these students cannot be generalized across all university students. This is only one department's experience with increasing diversity, equity, and inclusion within a program. There are a variety of contextual factors that may change the experience if used at a different university program.

The fourth limitation was the overall lack of racially and ethnically diverse populations where this study took place. Students noted that it disadvantaged them to not have experience working clinically with these individuals, especially when this program is heavily structured

around diversity, equity, and inclusion. While this remains a limitation, it is necessary to address that allowing graduate students to practice on racially and ethnically diverse populations while they are still learning what it means to be culturally responsive may be incredibly harmful and traumatizing to racially and ethnically diverse clients.

## Conclusion

It is essential that speech-language pathologists have the culturally responsive education to provide appropriate and equitable therapy for culturally and linguistically diverse clients. This starts with university speech-language pathology programs creating actionable goals. Programs must be intentional in providing this training to equip students for future experiences. Alongside this, students must self-reflect on their own biases and perceptions that will affect their clinical work.

The field of speech-language pathology still has a long way to go in creating an equitable space for racially and ethnically diverse individuals. While the idea of diversifying the field has been the motivation for many years, this will not be possible until an inclusive and equitable space is made for all. We cannot question why the diversity of speech-language pathology is so low when we haven't taken the steps to create change.

**APPENDIX A**

Quantitative Survey Questions

Q1: Do you consent to taking this survey?

Q2: What is your class level?

Q3: Are you a first-generation college student?

Q4: What is your gender?

Q5: How do you identify racially? (Select all that apply.)

Q6: What race are your often assumed to be by people on your campus (Select all that apply.)

Q7: What race are you often assumed to be by people on your campus (Select all that apply.)

Q8: Do you consider yourself to be mixed race or multicultural? (Apply to those who selected more than one race.)

Q9: During high school, which of the following best describe the racial makeup of the neighborhood in which you lived? If you lived in different neighborhoods during high school, please tell us about the racial makeup of the neighborhood in which you graduated from high school.

Q10: How effective was your coursework at preparing you to recognize culturally relevant/sustaining, antiracist assessment practices in a medical setting?

Q11: How effective was your coursework at preparing you to recognize culturally relevant/sustaining, antiracist intervention practices in a medical setting?

Q12: How effective was your coursework at preparing you to recognize culturally relevant/sustaining, antiracist intervention practices in an educational setting?

Q13: How effective was your coursework at preparing you to recognize culturally relevant/sustaining, antiracist assessment practices in an educational setting?

Q14: How effective were your clinical supervisors at preparing you to recognize culturally relevant/sustaining, antiracist assessment practices?

Q15: How effective were your clinical supervisors at preparing you to recognize culturally relevant/sustaining, antiracist intervention practices?

Q16: My clinical experiences give me the opportunity to work with racially and linguistically diverse clients.

Q17: My experiences (e.g. racial identity, professional roles, linguistic background, personal experiences, etc.) have influenced my ability to work with racially and linguistically diverse clients.

Q18: How confident are you in your ability to identify culturally relevant/sustaining, antiracist assessment practices?

Q19: How confident are you in your ability to identify culturally relevant/sustaining, antiracist intervention practices?

Q20: How effective was your coursework in encouraging you to reflect on your own racial bias?

Q21: How effective were your clinical supervisors in encouraging your to reflect on your own racial bias?

Q22: How confident are you in your ability to evaluate your own bias in order to deliver effective care?

Q23: How effective was your coursework in preparing you to interact with clients, family members, and caregivers in a culturally relevant/sustaining, antiracist manner?

Q24: How effective were your clinical supervisors in preparing you to interact with clients, family members, and caregivers in a culturally relevant/sustaining, antiracist manner?

Q25: How confident are you in your ability to interact with clients, family members, and caregivers in a culturally relevant/sustaining, antiracist manner?

Q26: What percentage of your courses actively address how to provide culturally relevant/sustaining, antiracist practices?

Q27: What percentage of your peers show a commitment to diversity, equity, and inclusion?

Q28: What percentage of your instructors show a commitment to diversity, equity, and inclusion?

Q29: What percentage of your instructors actively address how to provide culturally relevant/sustaining, antiracist practices?

Q30: What percentage of your clinical supervisors actively address how to provide culturally relevant/sustaining, antiracist practices?

Q31: As a whole, how do the faculty actively address how to provide culturally relevant/sustaining, antiracist practices?

Q32: Does the leadership within your program (e.g., Department Chair, Program Coordinator, Center Director, etc.) express a commitment to DEI?

Q33: Do the activities, readings, etc. in your courses reflect a commitment to diversity, equity, and inclusion?

Q34: I would be comfortable reporting instances of bias, racism, sexism, etc. to someone within my program.

Q35: I would be comfortable reporting instances of bias, racism, sexism, etc. to someone within my program.

Q36: I would know how to report instances of bias, racism, sexism, etc. to someone within my program.

**APPENDIX B**

Qualitative Focus Group Questions

Q1: What are some examples of culturally relevant or culturally sustaining antiracist assessment practices that you have learned about or tried?

Q2: Describe a time when you felt confident that your assessment practices were culturally relevant or culturally sustaining and antiracist.

Q3: What are some examples of culturally relevant or culturally sustaining antiracist intervention practices that you have learned or tried?

Q4: Describe a time when you felt confident that your intervention practices were culturally relevant or culturally sustaining and antiracist.

Q5: What are some examples of how you have worked with clients, family members, or caregivers in culturally relevant or culturally sustaining antiracist ways?

Q6: Have your clinical supervisors prepared you to work with clients, family members, or caregivers in a culturally relevant or sustaining antiracist manner? If so, how?

Q7: Have your ideas about diversity, equity, or inclusion changed during the program? If so, how?

# References

Abacioglu, C. S., Volman, M., & Fischer, A. H. (2020). Teachers' multicultural attitudes and perspective taking abilities as factors in culturally responsive teaching. *British journal of educational psychology*, *90*(3), 736-752.

Abdelaziz, M. M., Matthews, J. J., Campos, I., Kasambira Fannin, D., Rivera Perez, J. F., Wilhite, M., & Williams, R. M. (2021). Student stories: Microaggressions in communication sciences and disorders. *American journal of speech-language pathology*, *30*(5), 1990-2002.

American Speech-Language-Hearing Association, Ad Hoc Committee on the Scope of Practice in Speech-Language Pathology, DeRuiter, M., Campbell, M., Coleman, C., Green, C., Kendall, D., Montgomery, J., Rousseau, B., Swigert, N., Gillam, S., & McNeilly, L. (2016). *Scope of practice in Speech-Language Pathology*.
https://www.asha.org/siteassets/publications/sp2016-00343.pdf

American Speech-Language-Hearing Association. (2023). Annual Demographic and Employment data. In *2022 Member and Affiliate Profile*.
https://www.asha.org/siteassets/surveys/2022-member-affiliate-profile.pdf

American Speech-Language-Hearing Association. (n.d.). *Cultural responsiveness*.
https://www.asha.org/practice-portal/professional-issues/cultural-responsiveness/#:~:text=Cultural%20responsiveness%20involves%20understanding%20and,an%20individual%20brings%20to%20interactions.

Boles, L. (2018). Predicting graduate school success in a speech-language pathology program. *Teaching and Learning in Communication Sciences & Disorders*, *2*(2), 1.

Bond, M. L., Kardong-Edgren, S., & Jones, M. E. (2001). Assessment of professional nursing students' knowledge and attitudes about patients of diverse cultures. *Journal of Professional Nursing*, *17*(6), 305-312.

Braun, L. (2017). Theorizing race and racism: preliminary reflections on the medical curriculum. *American journal of law & medicine*, *43*(2-3), 239-256.

Cleveland, E., Biller, M., Benafield, N., Moss, A., Jordan, M., & Yang, M. (2023). Exploring Barriers to Diversity, Equity, and Inclusion in Communication Sciences and Disorders Students. *Developmental Disabilities Network Journal*, *3*(1), 9.

Cohn, D., & Caumont, A. (2016, March 31). *10 demographic trends that are shaping the U.S. and the world*. Pew Research Center. https://www.pewresearch.org/short-reads/2016/03/31/10-demographic-trends-that-are-shaping-the-u-s-and-the-world/

Cooper, L. A., Roter, D. L., Carson, K. A., Beach, M. C., Sabin, J. A., Greenwald, A. G., & Inui, T. S. (2012). The associations of clinicians' implicit attitudes about race with medical visit communication and patient ratings of interpersonal care. *American journal of public health*, *102*(5), 979-987.

Council on Academic Accreditation in Audiology and Speech-Language Pathology. (2023). *Standards for accreditation of graduate education programs in Audiology and Speech-Language Pathology*. https://caa.asha.org/siteassets/files/accreditation-standards-for-graduate-programs.pdf

Cross, T., Bazron, B., Dennis, K., & Isaacs, M. (1989). *Towards a culturally competent system of care, Volume I*. Washington, DC: CAASP Technical Assistance Center, Georgetown University Child Development Center.

Daughrity, B. (2021). Exploring outcomes of an asynchronous learning module on increasing cultural competence for speech-language pathology graduate students. *American Journal of Speech-Language Pathology*, *30*(5), 1940-1948.

*Dismantling racism statement*. (n.d.). Minnesota State University, Mankato. https://ahn.mnsu.edu/academic-programs/communication-sciences-and-disorders/about-communication-sciences-and-disorders2/dismantling-racism-statement/

Ellis, C., Jacobs, M., & Kendall, D. (2021). The impact of racism, power, privilege, and positionality on communication sciences and disorders research: Time to reconceptualize and seek a pathway to equity. *American Journal of Speech-Language Pathology*, *30*(5), 2032-2039.

*Equity 2030*. (n.d.). Minnesota State University, Mankato. https://www.mnsu.edu/university-life/diversity-equity-inclusion/equity-2030/

Ebert, K. D., & Williams, L. (2023). Perceptions of Racism Among Graduate Students of Color in Audiology and Speech-Language Pathology. *American journal of speech-language pathology*, *32*(6), 2982-2998.

*Fast facts about Minnesota State Mankato*. (n.d.). Minnesota State University, Mankato. https://www.mnsu.edu/about-the-university/fast-facts/

Fuse, A., & Bergen, M. (2018). The role of support systems for success of underrepresented students in communication sciences and disorders. *Teaching and Learning in Communication Sciences & Disorders*, *2*(3), 3.

Green, C. R., Anderson, K. O., Baker, T. A., Campbell, L. C., Decker, S., Fillingim, R. B., & Vallerand, A. H. (2003). The unequal burden of pain: confronting racial and ethnic disparities in pain. *Pain medicine*, *4*(3), 277-294.

Guiberson, M., & Atkins, J. (2012). Speech-language pathologists' preparation, practices, and

    perspectives on serving culturally and linguistically diverse children. *Communication*

    *Disorders Quarterly*, *33*(3), 169-180.

Guiberson, M., & Ferris, K. (2023). Speech-Language Pathologists' Preparation, Practices, and

    Perspectives on Serving Indigenous Families and Children. *American Journal of Speech-*

    *Language Pathology*, *32*(6), 2858-2870.

Guiberson, M., & Vigil, D. (2021a). Speech-language pathology graduate admissions:

    Implications to diversify the workforce. *Communication Disorders Quarterly*, *42*(3), 145-

    155.

Guiberson, M., & Vigil, D. C. (2021b). Admissions type and cultural competency in graduate

speech-language pathology curricula: A national survey study. *American Journal of*

*Speech-Language Pathology*, *30*(5), 2017-2027.

Halpern, C., Ozfidan, B., & Rasool, S. (2022). Pre-Service teachers' perceptions of cultural

competence to teach culturally and linguistically diverse students. *Journal of*

*multilingual and multicultural development*, 1-16.

Hammond, C., Mitchell, P., & Johnson, M. (2009). Academic and clinical preparation for

    cultural and linguistic diversity in speech-language pathology: Program director

    perspectives.*Contemporary Issues in Communication Science and Disorders*,

*36*(Spring), 63-76.

Hammond, Z. (2015). *Culturally Responsive Teaching and the Brain: Promoting Authentic*

    *Engagement and Rigor Among Culturally and Linguistically Diverse Students.* Thousand

    Oaks, CA: Corwin.

*Holistic Review.* (n.d.). AAMC. https://www.aamc.org/services/member-capacity-

      building/holistic-review

Howells, S., Barton, G., & Westerveld, M. (2016). Exploring the development of cultural

awareness amongst post-graduate speech-language pathology students. *International*

*journal of speech-language pathology*, *18*(3), 259-271.

Jones, M. E., Cason, C. L., & Bond, M. L. (2004). Cultural attitudes, knowledge, and skills of a

health workforce. *Journal of Transcultural Nursing*, *15*(4), 283-290.

Kirmayer, L. J., Gone, J. P., & Moses, J. (2014). Rethinking historical trauma. *Transcultural*

*psychiatry*, *51*(3), 299-319.

Kishimoto, K. (2020, June 23). Introduction to Anti-Racist Pedagogy. [Webinar]. St. CLoud,

MN: St. Cloud State University.

Kohnert, K., Kennedy, M. R., Glaze, L., Kan, P. F., & Carney, E. (2003). Breadth and depth of

diversity in Minnesota. *American Journal of Speech-Language Pathology.*

Kovacs, T. (2022). Assessing barriers to graduate school admission for applicants from

underrepresented populations in a master's level speech-language pathology

      program. *American Journal of Speech-Language Pathology*, *31*(2), 819-837.

Ladson-Billings, G., & Tate, W. F. (1995). Toward a critical race theory of education. *Teachers*

      *college record*, *97*(1), 47-68.

Lenski, S. D., Crumpler, T. P., Stallworth, C., & Crawford, K. M. (2005). Beyond awareness:

Preparing culturally responsive preservice teachers. *Teacher Education Quarterly*, *32*(2), 85-100.

Liang, X., & Zhang, G. (2009). Indicators to evaluate pre-service teachers' cultural

      competence. *Evaluation & Research in Education*, *22*(1), 17-31.

Lugo, V. A., Wood, C., Torres-Chavarro, M., & Garcia-Salas, M. (2023). Barriers to graduate

applications: Perspectives of undergraduate students from underrepresented

backgrounds in communication science and disorders. *Perspectives of the ASHA Special*

*Interest Groups*, *8*(4), 729-740.

Mahendra, N., & Kashinath, S. (2022). Mentoring underrepresented students in speech-language

pathology: Effects of didactic training, leadership development, and research

      engagement. *American Journal of Speech-Language Pathology*, *31*(2), 527-538.

Mahendra, Nidhi and Visconti, Colleen F. (2021) "Racism, Equity and Inclusion in

Communication Sciences and Disorders: Reflections and the Road Ahead," Teaching     and

Learning in Communication Sciences & Disorders: Vol. 5: Iss. 3, Article 1.

Majumdar, B., Browne, G., Roberts, J., & Carpio, B. (2004). Effects of cultural sensitivity

      training on health care provider attitudes and patient outcomes. *Journal of Nursing*

      *Scholarship*, *36*(2), 161-166.

Mandulak, K. C. (2022). The case for holistic review in communication sciences and disorders

      admissions. *Perspectives of the ASHA Special Interest Groups*, *7*(2), 476-481.

Mohapatra, B., & Mohan, R. (2021). A proposed framework for increasing racial and ethnic

diversity in communication sciences and disorders academic programs: The REAP     model.

*Perspectives of the ASHA Special Interest Groups*, *6*(4), 755-767.

Muñoz, M. L., Horton, R., & Johnson, V. E. (2023). Mentoring experiences of faculty of color in

communication sciences and disorders. *Perspectives of the ASHA Special Interest Groups*, *8*(4),

712-728.

Office of Equity and Inclusion. (2021). *Minnesota State terms of equity and inclusion*.

https://www.minnstate.edu/system/equity/docs/Minnesota-State-Terms-of-Equity-

and-Inclusion-09.2021.pdf

Privette, C. (2021). Critical race theory for speech-language pathology: How race-conscious

practice mitigates disparities. In *Critical perspectives on social justice in speech*

*-language pathology* (pp. 84-104). IGI Global.

Richburg, C. M. (2022). Underrepresentation of students from diverse backgrounds entering

communication sciences and disorders programs: An investigation into the university

student perspective. *American Journal of Speech-Language Pathology*, *31*(2), 613-630.

Roberts, T. M. (2023). Examining Inclusion in Speech-Language Pathology Graduate Programs

Through Minoritized Students' Advice to a Peer. *Perspectives of the ASHA Special Interest*

*Groups*, *8*(4), 693-711.

Roseberry-McKibbin, C., Brice, A., & O'Hanlon, L. (2005). Serving English language learners

in public school settings. *Language, Speech, and Hearing Services in School*.

Saha, S., Beach, M. C., & Cooper, L. A. (2008). Patient centeredness, cultural competence and

healthcare quality. *Journal of the National Medical Association*, *100*(11), 1275-1285.

Salsberg, E., Richwine, C., Westergaard, S., Martinez, M. P., Oyeyemi, T., Vichare, A., & Chen,

C. P. (2021). Estimation and comparison of current and future racial/ethnic        representation

in the US health care workforce. *JAMA Network Open*, *4*(3), e213789        -e213789.

Scott, K. A., & Mumford, V. E. (2007). Critical thoughts: Reexamining teacher training, cultural

awareness, and school reform. *Multicultural Perspectives*, *9*(4), 54-58.

Scott, R. D. (2023). Minnesota CSD program formalizes support for students of color. *ASHA*

*Leader*. https://doi.org/10.1044/leader.ae.28012023.dei-support-academics.32

Simon-Cereijido, G., Greene, K. J., & Méndez, L. I. (2023). Teaching Undergraduate Students about Cultural and Linguistic Diversity: Assessment and Pedagogical Challenges. *Teaching and Learning in Communication Sciences & Disorders*, *7*(2), 13.

Siwatu, K. O. (2007). Preservice teachers' culturally responsive teaching self-efficacy and outcome expectancy beliefs. *Teaching and teacher education*, *23*(7), 1086-1101.

Stockman, I. J., Boult, J., & Robinson, G. C. (2008). Multicultural/multilingual instruction in educational programs: A survey of perceived faculty practices and outcomes.

The Condition of Education 2023. (2023). In *The Condition of Education*.

https://nces.ed.gov/programs/coe/pdf/2023/cgf_508.pdf

United Way of the National Capital Area. (2023, August 31). *What is Intersectionality Theory? Learn with Examples*. United Way NCA. https://unitedwaynca.org/what-is-intersectionality/#:~:text=Intersectionality%20is%20a%20critical%20concept,the%20intersections%20of%20those%20identities

U.S. Department of Education, National Center for Education Statistics. (2023). *The Condition of Education 2023*. https://nces.ed.gov/programs/coe/pdf/2023/clr_508.pdf

Vespa, J., Medina, L., & Armstrong, D. M. (2018). Demographic Turning Points for the United States: Population Projections for 2020 to 2060. In *Population Estimates and Projections* (Report No. P25-1144).

https://www.census.gov/content/dam/Census/library/publications/2020/demo/p25-1144.pdf

Watts, C. R., DiLollo, A., & Zhang, Y. (2023). The impact of academic, sociodemographic, and program growth factors on admission offers to US graduate education programs in

Communication Sciences and disorders: National trends in 2016–2020 Cycles. *American Journal of Speech-Language Pathology*, *32*(1), 275-286.

*What is Anti-Racism?* (n.d.). 2024 Boston University Community Service Center. https://www.bu.edu/csc/edref-2/antiracism/

*Whiteness*. (n.d.). National Museum of African American History and Culture. https://nmaahc.si.edu/learn/talking-about-race/topics/whiteness

Wiggins, R. A., & Follo, E. J. (1999). Development of knowledge, attitudes, and commitment to teach diverse student populations. *Journal of Teacher Education*, *50*(2), 94-105.

Wong, A. A., Marrone, N. L., Fabiano-Smith, L., Beeson, P. M., Franco, M. A., Subbian, V., & Lozano, G. I. (2021). Engaging faculty in shifting toward holistic review: Changing graduate admissions procedures at a land-grant, Hispanic-serving institution. *American journal of speech-language pathology*, *30*(5), 1925-1939.

Woods, M. & Council of Academic Programs in Communication Sciences and Disorders. (2023). *CSDCAS Applicant Data Report | 2022-2023* [Report]. https://growthzonesitesprod.azureedge.net/wp-content/uploads/sites/1023/2024/03/2022-2023-CSDCAS-Applicant-Data-Report.pdf

Yu, B., Horton, R., Munson, B., Newkirk-Turner, B. L., Johnson, V. E., Khamis-Dakwar, R., & Hyter, Y. D. (2022). Making race visible in the speech, language, and hearing sciences:     A critical discourse analysis. *American journal of speech-language pathology*, *31*(2),       578-600.