Antiracist Teaching Self-Efficacy: A Case Study Needs Analysis

Elizabeth A. Harsma[1], Principal Investigator

Beth Beschorner[2], Co-Investigator

Justine Schultz[3], Graduate Research Assistant

[1,3]Instructional Design, IT Solutions, Minnesota State University, Mankato

[2]Center for Excellence in Teaching and Learning, Elementary & Literacy Education, Minnesota State University, Mankato

Authors' Note

Abstract

There is an urgent need to address racial inequity in higher education. As teaching in higher education continues to adopt technology, virtual learning spaces become sites for enacting anti-oppressive teaching methods. In the context of offering teaching with technology professional development, the current study sought to better understand equity-focused professional development needs through the lens of antiracist teaching self-efficacy. In this holistic single case study, investigators analyzed secondary data from an anonymous racial equity needs analysis survey and de-identified focus group notes. Descriptive statistics and qualitative analysis examined perceived confidence level, barriers, and needs related to implementation of antiracist teaching methods in higher education courses in a Midwestern public university with 15,000 students. Key findings include: (1) There were approximately the same number of items coded for negative (N=24) and positive (N=25) sources of teaching self-efficacy, with positive sources of efficacy cross-coded with themes such as culturally responsive teaching, collaboration, and antiracist teaching and negative sources of efficacy cross-coded with non-racist teaching methods among other codes. (2) Barriers to implementing antiracist teaching included organizational factors (such as time, competing priorities, and perceived barriers to measuring/accessing course equity data), professional development design/facilitation (such as lack of modeling methods, practice and feedback, and ongoing support), and perceptions/beliefs (including mismatch of expressed beliefs and antiracist teaching praxis, among others). (3) Professional development needs include addressing identified barriers and differentiation/customization of professional learning. This case study investigation is not generalizable to other contexts or audiences but may be a useful model for similar research in other contexts. As technology did not emerge as a theme in this data, future research in this area should explore the role of technology in enacting antiracist teaching methods.

Key words: teacher self-efficacy, anti-racism, teaching methods, academic technology, professional development

Land Acknowledgement

Minnesota State acknowledges the land and the tribal nations upon whose land this work is being accomplished. We acknowledge that we are on Dakota land. We recognize the Native Nations of this region who have called this place home over thousands of years including the Anishinaabe (Ojibwe), Lakota, Nakota, Ho-Chunk, and Cheyenne. We acknowledge the ongoing colonialism and the legacies of violence, displacement, migration, and settlement that foreground the formation of Minnesota State Colleges and Universities and subsequently this report. We commit to advancing critical efforts to understand and address these legacies, including the larger conversation of reparations, repatriation, and redress urgently needed for the scope of ethical acknowledgment to begin in earnest.

This statement was developed by the Minnesota State Equity 2030 Chancellor's Fellows and is reproduced here with their permission.

With thanks to Iyekiyapiwin Darlene St. Clair (2020) for her guidance that "land acknowledgements need to include the present, be more than a list, refer to a commitment, and give some broader context."

Introduction

There is a significant need to address racial inequity in higher education (de Kadt, 2020; Kishimoto, 2018, Knowles & Hawkman, 2020). Ongoing faculty professional development is one avenue to foster equity in higher education instruction (de Kadt, 2020). Thus, there is an opportunity for those that deliver professional development to address issues of inequity – namely by engaging faculty with antiracist teaching professional development. Those that deliver professional development might include center for teaching professional staff, instructional designers, and academic technologists. Further, as technology is a growing part of higher education instruction, teaching with technology becomes an essential site for exploring equity-focused professional development. In this context of teaching with technology professional development, this study sought to better understand professional development needs and barriers to antiracist teaching through the lens of teacher self-efficacy.

Positionality Statements

We declare our social positions here with the understanding that our identities (race, gender, disability, etc.) can be both a "hindrance and a resource" in research (Brooks & Hesse-Biber, 2007, p. 15). We reject the notion of researcher neutrality and acknowledge that our identities influence our perspectives and interpretation of data (Brooks & Hesse-Biber, 2007). As researchers we understand we hold some identities of power and privilege (for example, whiteness) and thus intend to use that as a resource to critique and dismantle those power structures.

Elizabeth Harsma: I am a white, cis-gendered woman, settler descendent, instructional designer working in higher education.

Beth Beschorner: My work is informed by my identity as a white, cis-gendered woman with training and experience in elementary and higher education.

Justine Schultz: In the spirit of self-reflexivity, I acknowledge my standpoint as an educated white cis-gendered women.

Literature Review

Professional Development

Researchers identify that (1.) higher education has been complicit in replication of social, economic, and cultural inequity and (2.) faculty professional development has the potential to disrupt inequity (de Kadt, 2020; Kasturi Behari-Leak, 2017). Kasturi Behari-Leak (2017) asserts that professional development may disrupt inequity only if it explicitly addresses issues of race and intersecting identities such as gender and disability, among others.

Educational Technology & Equity

Higher education instruction is increasingly infused with educational technology. Continued growth in teaching with technology is likely (Allen & Seaman, 2017). Of key importance is the significant body of research demonstrating that technology alone has no significant impact on learning (Clark, 2012; Kumar, Saxena, & Baber, 2021). Instead, the literature points to teaching methods applied through or enhanced by technology as a key driver in learning (Clark, 2012).

As such, technology becomes an important site for implementing antiracist teaching methods. This is essential work, as technology - as an extension of the classroom, may also be an environment where issues of power, ideology, and inequity are reproduced (Gleason & Suvorov, 2019; Ortega, 2017; Papendieck, 2018; Sims, 2017; Yılmaz & Söğüt, 2022). Despite the importance of understanding the role of technology in supporting anti-oppressive teaching practices, there is currently a gap in the research.

In a systematic review of the research on online teaching and learning from 2009 to 2018, Martin, Sun, and Westine (2020) reported that 4.68% of articles (N=619) addressed the topics of access, culture, equity, inclusion, and ethics. The researchers concluded there is "a need for research on organizational level topics such as Access, Culture, Equity, Inclusion and Ethics...within the context of online learning. Examination of access, culture, equity, inclusion, and ethics is very important to support diverse online learners, particularly with the rapid expansion of online learning across all educational levels" (Martin, Sun, & Westine, 2020, p. 12).

This brief review of the literature underscores the importance of examining teaching methods as the primary influence in learning, with academic technology serving as context, tool, or site of implementation. As such, this research will aim its questions towards teaching methods and examine the data for emerging themes related to technology use in implementation of these methods.

Antiracist Teaching Methods

Antiracist teaching is one approach that seeks to address inequity in education (Kishimoto, 2018; Knowles & Hawkman, 2020). Racism enacted through biased behavior, policy, and curriculum in disciplines including nursing, English, social work, biology, mathematics, engineering, and many others must be eliminated (Baker-Bell, 2020; Bell, 2020; Darling-Hammond, 2017; Davis & Livingstone, 2016; Kishimoto, 2018; Martin et al., 2022).

Knowles and Hawkman (2020) distinguish antiracist teaching methods from non-racist and culturally responsive teaching methods:

- **Non-Racist Teaching:** Avoids direct teaching on issues of institutional and systemic racism, may teach on individual racism or acknowledge issues of race.
- **Culturally Responsive Teaching:** Responds dynamically to student learning needs through culturally relevant materials, cultivation of teacher-student learning relationships, incorporation

of collaboration, and applying a critical lens to teaching and learning, among other methods (See also: Gay, 2018; Ladson-Billings, 1995).

- **Antiracist Teaching:** The practice of culturally responsive teaching that also challenges issues of institutional and systemic racism to build race literacy and address systems of oppression through real world action (See also Kishimoto, 2018).

An antiracist teaching practice intentionally and regularly:

- Challenges assumptions about white privileges,
- Deconstructs race relations,
- Articulates the influence of whiteness and white supremacy, and
- Actively rejects all manifestations of white supremacy (Knowles & Hawkman, 2020).

The desired outcomes of an antiracist teaching practice are to:

- Build students' race literacy through examination of the persistence of systems of oppression at individual, institutional, and systemic levels,
- Provide opportunities to create real world solutions to address oppressive systems, and
- Guide students in creating plans of action to challenge racism (Knowles & Hawkman, 2020).

Kishimoto (2018) shares these foundational aspects to engaging in antiracist teaching practice:

- **Continuous self-inquiry** is necessary to build awareness of institutionalized racism and one's own racial and social identities (including/especially white race). Awareness of one's social position allows an educator to reflect critically upon that position in relation to course content, teaching methods, and the identities of students in the classroom (See also Darling-Hammond, 2017).
- **Critical reflection** helps an educator understand that one's identities are not static – that each individual has both privileged and oppressed identities. Critically reflecting on dynamic social identities builds an educator's capacity to analyze power, privilege, and oppression as it relates to teaching practice.
- **Mutual learning communities** within the classroom diminish hierarchical power structures between student and faculty and make space for students to share their expertise (See also Freire, 2014). Educators can build community through vulnerability and humility as they share with students their own 'in process' work around race, oppression, and privilege.

Many scholars also suggest that antiracist teaching goes beyond classroom interactions (Bell 2020; Darling-Hammond, 2017; Kishimoto, 2018). Antiracist teaching may include advocating for antiracist policies and practices at the institutional level such as ongoing professional development, recruitment and retention of diverse faculty and staff, and examining resource allocation and funding structures, among other approaches (Bell 2020; Darling-Hammond, 2017; Kishimoto, 2018).

Given the urgent need to eliminate racism in education, institutions can advance this goal through professional development focused on antiracist teaching. One theoretical model that can guide professional development design and evaluation is teacher self-efficacy. This study focuses specifically on antiracist teaching self-efficacy.

Teacher Self-Efficacy

"Teacher efficacy has proved to be powerfully related to many meaningful educational outcomes such as teachers' persistence, enthusiasm, commitment and instructional behavior, as well as student outcomes such as achievement, motivation, and self-efficacy beliefs" (Tschannen-Moran & Hoy, 2001, p. 783). Teacher efficacy can serve as an important analytical lens to examine teacher professional development and practice (Tschannen-Moran & Hoy, 2001). This lens can also be applied to the context of antiracist teaching methods.

For example, Knowles and Hawkman (2020) developed and validated a Racial Teaching Efficacy Scale (RTEF) designed to measure self-efficacy in non-racist and antiracist teaching methods. The RTEF is meant to be used with Siwatu's (2007) Culturally Responsive Teaching Self-Efficacy scale. These scales have the potential to examine the impacts of colorblind ideology in equity-focused teaching practice, provide insight for targeted, specific teacher professional development, be a reflective tool for critical self-inquiry, and evaluate intervention effectiveness (Knowles & Hawkman, 2020).

Problem Statement

Researchers have identified a need to address racial inequity in higher education (de Kadt, 2020; Kishimoto, 2018, Knowles & Hawkman, 2020). Technology continues to be a growing part of higher education teaching practice and serves as an important site for implementing anti-oppressive teaching methods (Martin, Sun, & Westine, 2020). In the context of offering teaching with technology professional development, the current study sought to better understand equity-focused professional development needs. This research examined how faculty were engaging in equity work and examined that data to answer these questions:

Q1: How confident are faculty in implementing antiracist teaching methods?

Q2: What are perceived potential barriers to the implementation of antiracist teaching methods?

Q3: What are faculty perceived professional development needs related to antiracist teaching methods?

Methods

This research employs a holistic single-case study design. Selection of this design used the following rationale:

- Case study design allows detailed examination of complex and context-dependent phenomenon (Yin, 2014).
- Case study research methods are useful for addressing how? and why? research questions in contemporary contexts where there is little or no experimental control (Yin, 2014). Descriptive case study is also used for addressing what? research questions (Yin, 2014).

This study employs how and what research questions to examine a contemporary and contextual real-world phenomenon: The perceived confidence level, needs, and barriers to implementation of antiracist teaching methods in higher education.

Context

The case is bound by site. All participants were faculty at a Midwestern public institution of higher education with 15,000 students that is part of a college and university system.

The case is also bound by time. Data collection occurred between January and April of 2022.

At the time of data collection, the university system was in year 2 of a 10-year strategic plan focused on equity. Prior to data collection, there were a variety of changes to campus structures related to professional development around teaching and learning:

- Oversight of the center that focused on teaching and learning professional development was transitioned to the newly created Associate Vice Provost of Equity position.
- The center hired an Associate Director position focused exclusively on equity.
- This center updated their 5-year strategic plan to explicitly include antiracism, social justice, and equity as one of five essential goals of faculty development.
- The faculty contract was updated and approved to require equity-focused professional development for all full-time faculty employees.

It is important to note that the respective social positions of the investigators (shared in the introduction) also provide context and influence the analysis and conclusions of this research.

Data Collection

The institutional review board reviewed and approved this research. Secondary quantitative and qualitative data was obtained with consent from the center offering professional development on teaching and learning.

Data Sources

There are two sources of data in this study: (1) anonymous needs analysis survey and (2) de-identified focus group interview notes.

Focus group notes. Semi-structured focus group interviews were conducted with six academic departments by the center for teaching Associate Director of Equity Initiatives.

The focus group notes documented responses to focus group questions asking about previous equity-work, experiences with professional development, and ideas for support and professional development.

Survey data. The anonymous survey data included 26 responses.

Responses included demographic information such as:

- Current position,
- Number of years worked at the University,
- College or division,

Likert-scale questions related to professional development:

- Interest level in racial equity and justice topics, and
- Preferred formats of professional development.

Responses to open-ended question:

- What additional ideas do you have for professional development?
- What additional feedback would you like to share?

The survey also included responses on two quantitative scales:

- Quantitative racialized teaching efficacy scale (RTES) and
- Quantitative white fragility scale (used with permission, Knowles & Hawkman, 2020).

See Appendix A and Appendix B for additional detail on survey and focus group questions.

Data Analysis

Quantitative data analysis.

Quantitative data analysis was descriptive. Data analysis includes aggregate responses of demographic variables such as, college, position, number of years worked, among others. Analysis also examined overall preference for modality of professional development and professional development interests.

Due to the number of responses (N = 26), additional quantitative analysis was not possible. As a result, the RTES and white fragility scales were excluded from the analysis.

Qualitative data analysis.

The trustworthiness of this qualitative analysis was addressed using a theoretically grounded codebook and cross-checking across three independent coders.

Open coding. Data were also open coded through thematic analysis to capture any emerging themes.

Code book. A qualitative code book was used to identify sources of self-efficacy and teaching methods in focus groups and open-ended survey responses.

The code book employed a theoretical framework to establish codes. Two sets of codes were used. One set focused on identifying themes related to non-racist (NR), culturally responsive (CR), and anti-racist (AR) teaching. The other set of codes centered on sources of teacher efficacy including mastery experience, vicarious experience, verbal persuasion, and affective and physiological response (See Bandura 1977; Bandura 1997). Sources of efficacy were also coded as either positive or negative.

All codes (theoretical and emerging) were examined in relation to experiences of professional development in equity topics. See also Appendix C for a description of the codes employed in analysis.

Table 1.

Sources of Efficacy Codes

Code	Code Name	Code Description
-MST	Mastery experiences - Negative	Perceived unsuccessful experiences, including none or ineffective guided or unguided performance of teaching methods, skills. Also missing or a lack of mastery experiences.
+MST	Mastery experiences - Positive	Perceived successful experiences, including guided or unguided performance of teaching methods, skills
-VXP	Vicarious experiences - Negative	Learning, hearing about, or seeing others have unsuccessful experiences, including none or ineffective modeling of teaching methods, skills. Also missing or a lack of vicarious experience.

+VXP	Vicarious experiences - - Positive	Learning, hearing about, or seeing others have successful experiences, including modeling of teaching methods, skills
-VRB	Verbal persuasion - Negative	Receiving written or oral feedback that does not convey belief in ability to be successful with teaching methods, skills including receiving no, ineffective, or unsupportive scaffolding, feedback, support for improvement. Also missing or a lack of verbal persuasion.
+VRB	Verbal persuasion - Positive	Receiving written or oral feedback that conveys belief in ability to be successful with teaching methods, skills including receiving scaffolding, feedback, support for improvement
-AFF	Physiological and affective states - Negative	Negatively perceived physiological and /or affective states related to performance of teaching methods or skills, such as feelings or emotions. Also missing or a lack of this.
+AFF	Physiological and affective states - Positive	Positively perceived physiological and /or affective states related to performance of teaching methods or skills, such as feelings or emotions

Table 2.

Teaching Methods Codes

Code	Code Name	Code Description
NR	Non-racist teaching	Avoids direct teaching/conversation on issues of institutional and systemic racism, may teach on individual racism or acknowledge issues of race, colorblind ideology evident. Inaction or not addressing race in program or institutional policy or procedure.
CR	Culturally responsive teaching	Responds dynamically to student learning needs through culturally relevant materials, cultivation of teacher-student learning relationships, incorporation of collaboration, and applying a critical lens to teaching and learning, among other methods (Gay, 2018; Hammond, 2015; Ladson-Billings, 1995). Responds dynamically to student success needs through program or institutional policy or procedure. The code may not always have enough information to reveal the outcome of action but must have enough to suggest that a culturally responsive outcome could occur.
AR	Antiracist teaching	The practice of culturally responsive teaching that also challenges issues of institutional and systemic racism to build race literacy and address systems of oppression through real world action. Program or institutional policy or procedure that intentionally addresses racism. The code may not always have enough information to reveal the outcome of action but must have enough to suggest that an antiracist outcome could occur.

Table 3.

Open Codes that Emerged from the Data

Open Code	Open Code Description
Awareness	Demonstrates an awareness of equity issues or equity-focused actions, but are not taking action; may focus on challenge, barrier
Beyond Teaching	Equity work outside of classroom, policy, procedure, recruitment, retention, research, conferences
Collaboration	Value of collaboration, conversations in equity work
Curriculum	Mentioning specific courses, mentioning specific topics within courses focused on equity; Also, course design elements such as outcomes, assessment, learning activities, and materials in relation to equity.
Perception	Beliefs and evaluations about professional development that do or do not align with evidence, adult learning theory, and/or antiracist praxis.
Time	Perception of not enough time to engage, scheduling barriers to engaging with professional development, or time as a barrier to prioritization of equity-focused work.

Results

The following sections provide an overview of the results by research question. See Appendix D for a complete report of results from quantitative and qualitative analysis of both the survey and focus group data.

Q1: How confident are faculty in implementing antiracist teaching methods?

Key points from research Q1:

- The cohort represented in this case study reported about the same frequency of positive and negative sources of efficacy.
- Culturally responsive teaching methods and collaboration were the most common themes also coded for positive sources of efficacy.
- Enacting antiracist teaching methods seem to have a positive contribution to teacher self-efficacy.
- Non-racist teaching methods appear to have an overall negative contribution to teacher self-efficacy.

Additional detailed results from research Q1:

Of the sources of efficacy coded in the qualitative data (N=49), the most frequently sources were 29% negative mastery experiences, 27% positive vicarious experiences, and 23% positive mastery

experiences. Overall, about half of coded items were negative sources of efficacy (N=24) and half positive (N=25).

Of the teaching methods coded in the qualitative data (N = 96), 57% were coded as culturally responsive followed by 31% antiracist teaching methods, and 11% non-racist teaching methods.

Of all the items coded as both a source of efficacy and a teaching method code (N=22), culturally responsive teaching was the greatest source of positive self-efficacy (N=10). Antiracist teaching was only cross coded with positive sources of efficacy (N=4). Non-racist teaching was only cross coded with negative sources of efficacy (N=3).

Of the items coded with an open code (N=130), 30% were coded as Curriculum, 23% were coded as Collaboration, 20% as Beyond Teaching, 16% as Perception, 8% as Time, and 2% as Awareness.

Of all the items coded as both a source of efficacy and an open code (N=22), Collaboration was the largest positive source of efficacy (N=10). Beyond Teaching was cross coded with mostly negative sources of efficacy (N=4) and there were 0 coded interactions between Curriculum and sources of self-efficacy.

Q2: What are perceived potential barriers to the implementation of antiracist teaching methods?

Key points from research Q2:

- Organizational factors such as time constraints, scheduling conflicts, prioritization of other duties, lack of participation, and perceived difficulty in measuring or accessing course data were identified as potential barriers to implementing teaching methods.
- Other potential barriers to implementation also included professional development design and facilitation factors such as:
  - Little or no modeling of practices that are recommended,
  - Focus on the theoretical with a lack of practical application,
  - Lack of opportunities for collaboration and conversations,
  - Missing feedback, support, or follow-up in implementation - including ongoing training, and a
  - Mismatch of training scope with participants' experience level.
- Perceptions and beliefs about the nature of antiracist teaching were also identified as potential barriers to implementation including:
  - Perception that racism is not a part of students' lived experience,
  - Idea that focusing on race means ignoring other identities,
  - Problematizing antiracism professional development led by white facilitators,
  - Perception that ongoing self-inquiry is not necessary, and
  - General engagement strategies are sufficient to address equity.

Additional detailed results from research Q2:

Barriers to implementing antiracist teaching methods were identified within items also coded for sources of efficacy, teaching methods, and open codes. The barriers to implementation ranged in focus, some directed toward teaching methods while some barriers focused more on organizational and practical factors.

Teacher self-efficacy and barriers. Negative sources of efficacy provided insight into various barriers to implementation.

The negative mastery experience coded items included these themes: (1) Reports of time as a constraint/limitation. (2) The perception that training is not applicable or overly focused on the theoretical. (3) The perception of a lack of accountability to follow-up with learning. (4) Reports of a lack of modeling practices that are recommended in training.

The negative verbal persuasion coded items included these themes: (1) Reports of a lack of feedback in professional development. (2) The perception of a lack of follow-up support to implement learning. (3) An absence of opportunity to meaningfully measure the impact of equity work.

The negative vicarious experience coded items included this theme: (1) The perception that others doing equity work share more about theoretical/conceptual content, rather than practical application experiences.

The negative physiological and affective states coded items included this theme: (1) The perception of a mismatch of training scope with the participants experience or knowledge - for example, training is not suitable for those more experienced with equity work.

Teaching methods and barriers. Items coded as non-racist teaching identified perceived barriers to implementation.

The non-racist teaching coded items included these themes: (1) The perception that a focus on race means ignoring other intersectional identities such as disability. (2) The perception that racism is not a part of students' lived experience. (3) The idea that a focus on engaging students or employees in general is more of a priority/need than addressing racism.

Open codes and barriers. Several potential barriers emerged from open coded items in awareness, collaboration, perception, and time.

The awareness coded items included these themes: Report of being aware of the need to engage in equity work, but not currently engaging due to (1) environmental factors - For example, COVID limitations or lack of participation in initiatives and (2) readiness factors - For example, a perception that training has not equipped them to take action.

The collaboration coded items included these themes: (3) The perception of a lack of collaboration as a challenge to their equity work, such a perceived lack of practical support and feedback on their equity efforts.

The perception coded items included these themes: (1) The perception that evidence-based practices or available support is not effective or missing – For example, training should be non-threatening to white people, (2) The perception that there is no ongoing training. (3) The perception that self-inquiry is an ongoing practice and conversely that it is not necessary or not a continual practice. (4) The perception of a lack of support for practical application and feedback. (5) Perceived difficulty in accessing course equity data. (6) Problematizing antiracism professional development led by white facilitators.

The time coded items included these themes: Time is perceived as a significant barrier to equity work, including (1) perceived scheduling/time constraints, and (2) prioritization of other duties or teaching practices.

Q3: What are faculty perceived professional development needs related to antiracist teaching methods?

Key points from research Q3:

- Participants expressed preference for interdisciplinary workshops or customized training specific to program/department needs.
- Respondents expressed interest in professional development around inclusive learning and specific antiracist teaching methods such as racial equity and incorporating social justice into discipline.
- Professional development needs also include addressing potential barriers to implementation.

Additional detailed results for research Q3:

Professional development needs were identified from anonymous survey and qualitative data.

Modes of Professional Development. The responses (N=26) indicate that the preferred mode of professional development is through interdisciplinary workshops (one meeting of 2-3 hours) (N=19). The second most preferred mode is through department or program customized learning opportunities (1N=8). The next closest modes are Interdisciplinary Certifications (N=12) and Drop-In sessions (N=11).

Professional Development Interests. Participants (N=26) expressed greatest interest in the following topics:

(1) Creating a trusting, inclusive, and humanizing learning environment. Of note, this was the only topic where all participants indicated some level of interest.

(2) Learning how to incorporate issues of social justice and racial equity into your discipline and teaching.

(3) Gaining knowledge of racial identity models (i.e., how people are socialized into a racial identity).

(4) (a.) Build awareness around issues of racialization, equity, justice; (b.) Learning protocols to discuss identity, race, etc. with colleagues and students; (c.) Facilitating discussions about race with your students to build racial literacy (each of these items had the same level of expressed interest).

Barriers and Needs. Identified potential barriers are also a source of professional development needs. This includes addressing barriers related to organizational factors, professional development design, and perceptions/beliefs.

Discussion

This investigation may provide insight into programming, curriculum, and instructional design of antiracist and equity-focused professional development within the context of the case. A discussion of the key findings and their implications follows. Key points, consistent with the literature on antiracist teaching include:

- Fostering interdisciplinary collaboration,

- Offering practical applications of methods,
- Providing supported opportunities for practice and feedback,
- Incorporating critical self-inquiry,
- Modeling antiracist teaching methods,
- Supporting metacognitive reflection, and
- Considering customized professional development programming (See also de Kadt, 2020; Kasturi Behari-Leak, 2017; Kishimoto, 2018; Taylor & Trevino, 2022).

Researchers found Collaboration was a common theme and served as a beneficial source of teaching efficacy. Lack of collaboration was also identified as a barrier to equity work. The notion that collaboration is an important aspect of equity work in teaching and learning is strongly supported by education research on antiracist teaching (Baker-Bell, 2020; Bell, 2020; Darling-Hammond, 2017; Kishimoto, 2018). This finding was also supported by participants' preference for interdisciplinary professional development workshops. Additional implications for this finding include applying socio-constructivist learning theories and antiracist teaching methods to professional development design to provide opportunities for collaboration in equity-focused professional development.

Another key finding is that researchers coded about the same number of positive and negative sources of mastery experiences. As mastery experience is one of the most impactful sources of self-efficacy (Bandura, 1997), this finding highlights the importance of supported opportunities for practice and feedback on antiracist teaching methods within professional development offerings. Analysis also revealed a lack of practical strategies or a focus on the theoretical as a barrier to implementing equity-focused teaching methods. These findings imply that professional development design would benefit from intentionally incorporating practical strategies, for example, how to conduct discussions about race, create humanizing/inclusive environments, etc.

Another barrier included perceptions/beliefs about the nature of antiracist teaching practice, including the need for ongoing critical self-inquiry. Critical self-inquiry has been identified as a foundational component of antiracist teaching (Kishimoto, 2018). This finding emphasizes the need to balance curriculum that offers practical strategies with ongoing self-reflective practice in professional development design.

Researchers also found the largest positive source of efficacy was vicarious experience, such as observing or hearing about successful teaching experiences. Analysis also found that one of the barriers to implementing equity-focused teaching included a lack of modeling, support, and feedback on applying methods. These findings emphasize the value of modeling antiracist methods in professional development and including metacognitive reflection. This might include intentionally asking participants to identify and discuss examples/modeling of the teaching methods used in the professional development or pointing out these connections in their own teaching practice.

Another key finding identified the need for customized or department specific professional development. Also discussed in the conclusion as a limitation to this study, 50% of the respondents on the anonymous survey were from education, a division that has been engaging in antiracism for 10 or more years. These respondents may feel ready to implement specific practices and placed emphasis on the practical. The nature of the data did not allow for further analysis to determine if perceived readiness correlates to past implementation of antiracist teaching methods. As such, the results may not

fully represent the range of needs in the broader context of this case. It follows then that customized professional development is an important programming consideration. Professional development design may also benefit from incorporating differentiated instruction methods or applying universal design for learning guidelines.

Conclusion

Conclusion. This holistic case study provided insight into this cohort's professional development needs through the lens of antiracist teaching self-efficacy. Results include about the same number of positive and negative sources of teaching efficacy, greater experience with culturally responsive teaching methods, and a need to address barriers to implementation such as organizational factors, instructional design of professional development, and perceptions/beliefs in equity-focused professional development offerings.

Limitations. This case study investigation provides insight into a specific cohort of faculty engaging with a racial equity needs analysis survey and focus group during the Spring of 2022 and is not generalizable to other contexts or audiences. One limitation may be researcher bias in interpretation and coding (See the Introduction information on social positionality and methods for a discussion of coding/analysis methods). Another limitation may be participation in the research may not be represented equally across colleges at the University with 50% of anonymous survey respondents from education. Thus, the results may not fully represent the range of needs in the broader context of this case.

Future research. As technology use did not emerge as a theme in this data, future research in this area may include understanding the role of technology in enacting antiracist teaching methods. As quantitative analysis of survey data was limited by the number of participants, another future area of research might include collecting additional data to validate the quantitative racialized teaching efficacy and white fragility scales in a higher education context. The teacher self-efficacy model applied in this research focuses on the individual. Because antiracist teaching praxis emphasizes community and collective action, future research might also explore collective teacher efficacy in antiracist teaching methods.

Appendix A: Racial Equity Needs Assessment Survey

Racial Equity Needs Assessment Survey

Demographic Information

- Current position
- Number of years at institution
- College/Division

Professional Development

Which modes of professional development are you interested in? Select all that apply:

- Interdisciplinary workshops (one meeting of 2-3 hours)
- Interdisciplinary certificates (several meetings over 3-4 weeks)
- Department or program customized learning opportunities
- Drop-in sessions

How interested are you in the following topics for professional development: (Not interested to very interested on a 4-point Likert-scale)

1. Build awareness around issues of racialization, equity, and justice
2. Learning protocols to discuss identity, race, etc. with colleagues and students
3. Considering your own identities and exploring the ways that those identities shape your experiences in the academy
4. Gaining knowledge of racial identity models (i.e., how people are socialized into a racial identity)
5. Learning how to incorporate issues of social justice and racial equity into your discipline and teaching
6. Writing equity and justice focused learning outcomes
7. Decentering whiteness in your curriculum
8. Applying universal design for learning with an equity lens (i.e., universal design for learning is a specific approach to teaching and learning)
9. Creating a trusting, inclusive, and humanizing learning environment
10. Designing student-centered instruction
11. Utilizing trauma-informed teaching approaches (i.e., trauma-informed teaching considers how trauma impacts learning)
12. Facilitating discussions about race with your students that develops students' racial literacy

What additional ideas do you have for professional development? (Open-ended)

What additional feedback would you like to share? (Open-ended)

The survey also included a racial fragility and an anti-racist teaching self-efficacy scale (See Knowles & Hawkman, 2020). Due to low response rate (N=26), these data were excluded from this analysis.

Appendix B: Focus Group Questions

Needs Assessment: Focus Group Questions

1. What type of work is already happening in your department to advance equity and justice?
2. What training or professional development, if any, has been helpful in developing your ability to advance equity within your work? Why?
3. What training or professional development focused on diversity, equity, inclusion, culturally responsive practice, or antiracism, if any, has not been helpful or were you not able to participate? Why?
4. What are your next steps as an individual and as a department to advance equity within your department?
5. Considering all of the demands that you have in your work, what would help you achieve these next steps?

Appendix C: Code Book

Table 1.

Sources of Efficacy Codes

Code	Code Name	Code Description
-MST	Mastery experiences - Negative	Perceived unsuccessful experiences, including none or ineffective guided or unguided performance of teaching methods, skills. Also missing or a lack of mastery experiences.
+MST	Mastery experiences - Positive	Perceived successful experiences, including guided or unguided performance of teaching methods, skills
-VXP	Vicarious experiences - Negative	Learning, hearing about, or seeing others have unsuccessful experiences, including none or ineffective modeling of teaching methods, skills. Also missing or a lack of vicarious experience.
+VXP	Vicarious experiences - - Positive	Learning, hearing about, or seeing others have successful experiences, including modeling of teaching methods, skills
-VRB	Verbal persuasion - Negative	Receiving written or oral feedback that does not convey belief in ability to be successful with teaching methods, skills including receiving no, ineffective, or unsupportive scaffolding, feedback, support for improvement. Also missing or a lack of verbal persuasion.
+VRB	Verbal persuasion - Positive	Receiving written or oral feedback that conveys belief in ability to be successful with teaching methods, skills including receiving scaffolding, feedback, support for improvement
-AFF	Physiological and affective states - Negative	Negatively perceived physiological and /or affective states related to performance of teaching methods or skills, such as feelings or emotions. Also missing or a lack of this.
+AFF	Physiological and affective states - Positive	Positively perceived physiological and /or affective states related to performance of teaching methods or skills, such as feelings or emotions

Table 2.

Teaching Methods Codes

Code	Code Name	Code Description
NR	Non-racist teaching	Avoids direct teaching/conversation on issues of institutional and systemic racism, may teach on individual racism or acknowledge issues of race, colorblind ideology evident. Inaction or not addressing race in program or institutional policy or procedure.

CR	Culturally responsive teaching	Responds dynamically to student learning needs through culturally relevant materials, cultivation of teacher-student learning relationships, incorporation of collaboration, and applying a critical lens to teaching and learning, among other methods (Gay, 2018; Hammond, 2015; Ladson-Billings, 1995). Responds dynamically to student success needs through program or institutional policy or procedure. The code may not always have enough information to reveal the outcome of action but must have enough to suggest that a culturally responsive outcome could occur.
AR	Antiracist teaching	The practice of culturally responsive teaching that also challenges issues of institutional and systemic racism to build race literacy and address systems of oppression through real world action. Program or institutional policy or procedure that intentionally addresses racism. The code may not always have enough information to reveal the outcome of action but must have enough to suggest that an antiracist outcome could occur.

Table 3.

Open Codes that Emerged from the Data

| Open Code	Open Code Description
Awareness	Demonstrates an awareness of equity issues or equity-focused actions, but are not taking action; may focus on challenge, barrier
Beyond Teaching	Equity work outside of classroom, policy, procedure, recruitment, retention, research, conferences
Collaboration	Value of collaboration, conversations in equity work
Curriculum	Mentioning specific courses, mentioning specific topics within courses focused on equity; Also, course design elements such as outcomes, assessment, learning activities, and materials in relation to equity.
Perception	Beliefs and evaluations about professional development that do or do not align with evidence, adult learning theory, and/or antiracist praxis.
Time	Perception of not enough time to engage, scheduling barriers to engaging with professional development, or time as a barrier to prioritization of equity-focused work.

Appendix D: Results

Quantitative Results

Current Position. Over half of the responses were from those who identify their current higher education position as a Professor (9) or a probationary Assistant Professor (8). Less common, but still evident were Assistant Professors of a Fixed Term (3), Adjunct Instructor (1), Associate Professor (1) and those that identified as Other (4).

Current Position

26 Responses
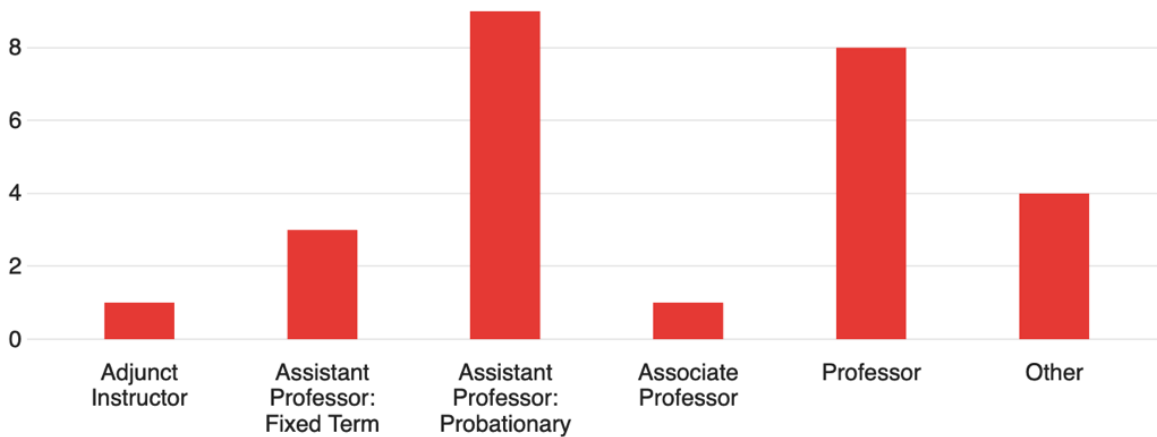
**Years at University.** The majority of individuals in this study indicate having more than 10 years of experience at the given institution surveyed (38%). The second most responses come from those with 1-3 years of experience at the institution (27%). The third most responses show 4-5 years of experience at the institution (23%). The lowest responses obtain 5-10 years of experience from responders (12%).

Number of Years at Institution

26 Responses

| 1-3 [27%] | 4-5 [23%] | 5-10 [12%] | More than 10 [38%] |
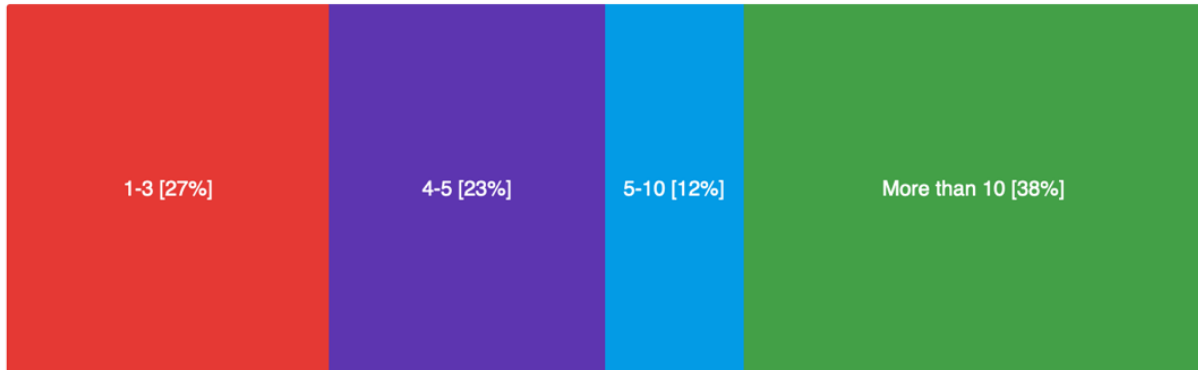
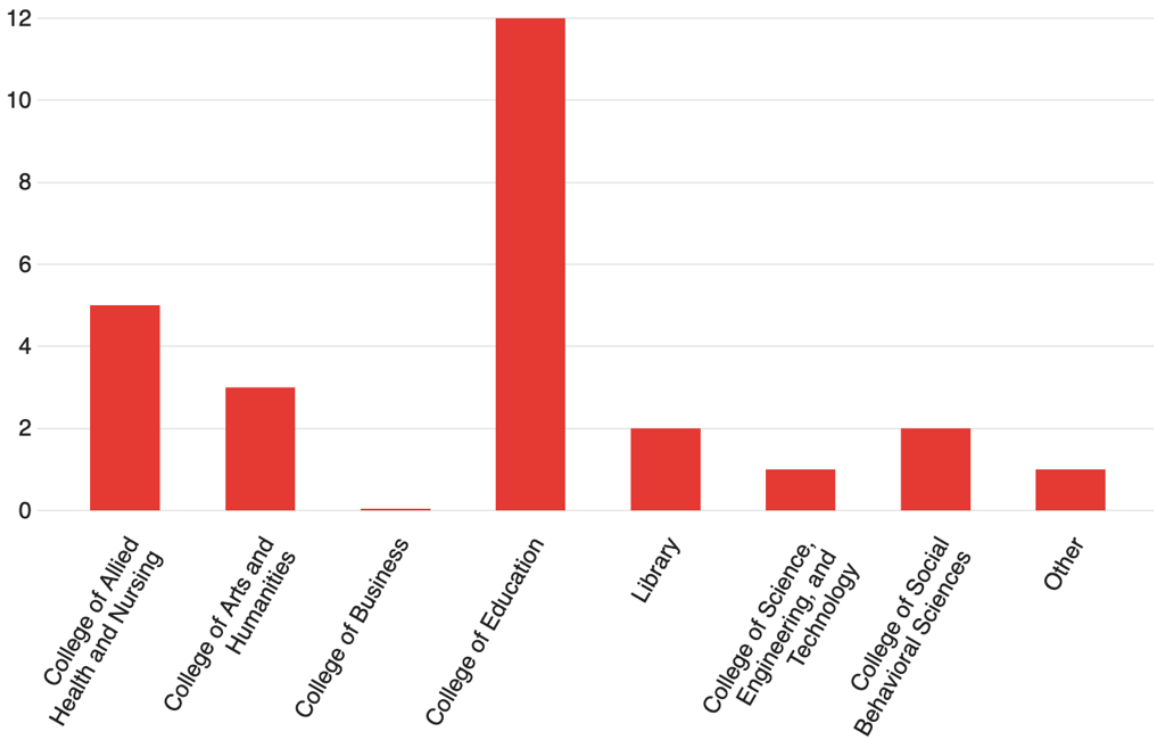**College/Division.** Half of the responses on the anonymous survey were from the college of education (N = 12). The other half of the responses included responses from all other colleges, except the college of business.

College/Division

26 Responses

Mode of Professional Development. The responses indicate that the preferred mode of professional development is through interdisciplinary workshops (one meeting of 2-3 hours) (19). The second most preferred mode is through department or program customized learning opportunities (18). The next closest modes are through Interdisciplinary Certifications (12) and Drop-In sessions (11). The least preferred mode of professional development we recorded as Other (3).

Preferred Modes of Professional Development (Select all that apply)
26 Responses

- Other
- Drop-in sessions
- Department or program customized learning opportunities
- Interdisciplinary certificates (several meetings over 3-4 weeks)
- Interdisciplinary workshops (one meeting of 2-3 hours)
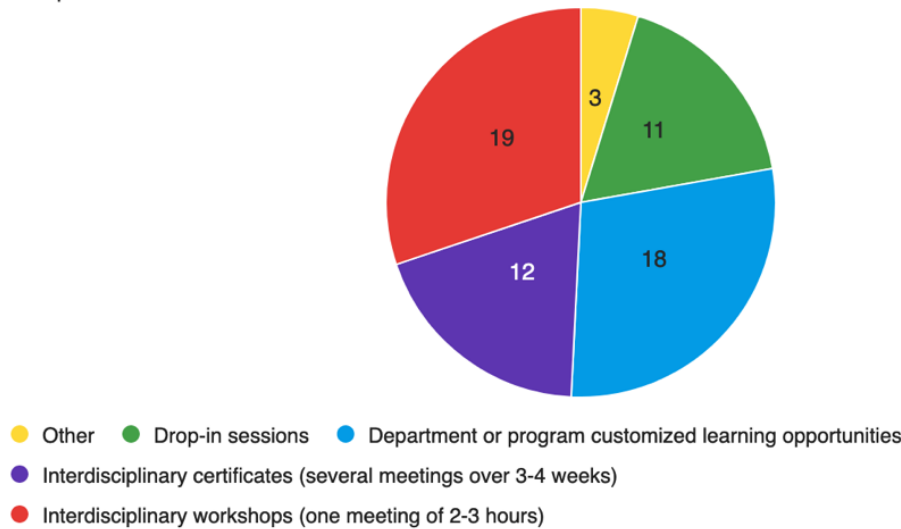
Professional Development Interests. Participants rated 12 topics from Not interested (1) to Very interested (4). Topics are listed in order of most to least interest overall, where a bigger sum indicates greater interest:

(1) Creating a trusting, inclusive, and humanizing learning environment (total sum 81). Of note, this was the only topic where all participants indicated some level of interest.

(2) Learning how to incorporate issues of social justice and racial equity into your discipline and teaching (sum of 78).

(3) Gaining knowledge of racial identity models (i.e., how people are socialized into a racial identity) (sum of 76).

(4) Build awareness around issues of racialization, equity, justice; Learning protocols to discuss identity, race, etc. with colleagues and students; Facilitating discussions about race with your students to build racial literacy (each item had a sum of 75).

(5) Designing student-centered instruction (sum 74).

(6) Utilizing trauma-informed teaching (sum of 73).

(7) Applying universal design for learning with an equity lens (sum of 69).

(8) Writing equity focused learning outcomes (sum 68).

(9) Decentering whiteness in your curriculum (sum of 67).

(10) Considering your own identities and exploring the ways those identities shape your experiences in the academy (sum of 60).

Field	Min	Max	Mean	Standard Deviation	Variance	Responses Count	Sum
Build awareness around issues of racialization, equity, and justice	1	4	3.13	.97	.94	24	75
Learning protocols to discuss identity, race, etc. with colleagues and students	1	4	3.13	.88	.78	24	75
Considering your own identities and exploring the ways that those identities shape your experience in the academy	1	4	2.61	1.01	1.02	23	60
Gaining knowledge of racial identity models (I.e., how people are socialized into a racial identity)	1	4	3.17	.85	.72	24	76
Learning how to incorporate issues of social justice and racial equity into your discipline and teaching	2	4	3.25	.78	.6	24	78
Writing equity and justice focused learning outcomes	1	4	2.96	1	1	23	68
Decentering whiteness in your curriculum	1	4	2.91	1.02	1.04	23	67
Applying universal design for learning with an equity lens (I.e., universal design for learning isa specific approach to teaching and learning)	1	4	2.88	.93	.86	24	69
Creating a trusting, humanizing, inclusive, learning environment	1	4	3.52	.77	.60	23	81
Designing student-centered instruction	1	4	3.08	1.04	1.08	24	74
Utilizing trauma-informed teaching approaches (I.e., trauma-	1	4	3.04	1.02	1.04	24	73

informed teaching considers how trauma impacts learning)							
Facilitating discussions about race with your students that develops students' racial literacy	1	4	3.13	.97	.94	24	75

Qualitative Results

Qualitative analysis included 187 total items from the needs analysis survey and the focus group notes. Each item was coded independently by 3 raters. Independent coding was cross-checked, and final code(s) were selected for the item by consensus.

Teacher Self-Efficacy. Of 187 total items, 49 items were coded for sources of teacher self-efficacy. The most common sources of efficacy noted were negative mastery experience (-MST) and positive vicarious experience (+VXP), followed by positive mastery experience (+MST). Description of common themes that emerged within each code is noted in the table below.

Code	Count	Percent of Total
-MST	14	28.57%
+MST	11	22.45%
-VRB	3	6.12%
+VRB	1	2.04%
-VXP	3	6.12%
+VXP	13	26.53%
-AFF	4	8.16%
+AFF	0	0.00%
TOTAL	49	100.00%

Code	Description of Results
-MST	The negative mastery experience coded items included these themes: (1) Reports of time as a constraint/limitation. (2) The perception that training is not applicable or focused on the theoretical. (3) The perception of a lack of accountability to follow-up with learning. (4) Reports of a lack of modeling practices that are recommended in training.
+MST	The positive mastery experience coded items included these themes: (1) The perception of the benefit of ongoing practice/training. (2) Reports of engaging with student voice/experience. (3) Report of goal/plan orientation in equity work. (4)

	Report of the benefit of opportunities to individualize equity work to their level of experience.
-VRB	The negative verbal persuasion coded items included these themes: (1) Reports of a lack of feedback in professional development. (2) The perception of a lack of follow-up support to implement learning. (3) An absence of opportunity to meaningfully measure the impact of equity work.
+VRB	The positive verbal persuasion coded items included these themes: (1) Reports of the benefit of collaboration and conversations as a key support in equity work. (2) The perception of the benefit of centering student voice/experience to inform equity work. (3) Reports of hearing from students about the positive impact equity-focused teaching has had for them.
-VXP	The negative vicarious experience coded items included this theme: (1) The perception that others doing equity work share more about theoretical/conceptual content, rather than practical application experiences.
+VXP	The positive vicarious experience coded items included this theme: (1) The perception of the benefit of learning from the proved experience of others in training and in resources such as books. (2) The perception of the benefit of interdisciplinary conversations to learn about others' successful implementation in equity work.
-AFF	The negative physiological and affective states coded items included this theme: (1) The perception of a mismatch of training scope with the participants experience or knowledge - for example, training is not suitable for those with more experienced with equity work.
+AFF	No items were coded for positive physiological and affective states.

Teaching Method. Of 187 total items, 96 were coded with a teaching method. Culturally responsive teaching represented the majority of the codes, followed by antiracist teaching, and non-racist teaching. Description of common themes that emerged within each code is noted in the table below.

Code	Count	Percent of Total
NR	11	11.46%
CR	55	57.29%
AR	30	31.25%
TOTAL	**96**	**100.00%**

Code	Description of Results
NR	The non-racist teaching coded items included these themes: (1) The perception that a focus on race means ignoring other intersectional identities such as disability. (2) The perception that racism is not a part of university students' lived experience. (3) The idea that a focus on engaging students or employees in general is more of a priority/need than addressing racism.

CR	The culturally responsive teaching coded items included these themes: (1) Reports of incorporating specific methods to address equity such as undergraduate research, open educational resources (OER), universal design for learning (UDL), transparency in learning and teaching (TILT), and Un-grading, (2) Reports of incorporating curriculum topics such as microaggressions, cultural competency, diversity, and social justice. Reports of incorporating methods outside the classroom such as admission processes, policies, recruitment, and retention efforts like scholarships.
AR	The anti-racist teaching coded items included these themes: (1) Reports of incorporating methods such as revised outcomes that focus on race, trauma informed learning, courageous conversations about race, and structuring learning to assure Black and Brown students are supported/not tokenized. (2) Reports of incorporating curriculum topics such as culture and race, racism, whiteness, racial equity, and intersectionality. (3) Reports of outside of classroom practices such as recognizing faculty of color, recruitment of racially diverse students, and using data to inform practice and rectify predictable patterns around race.

Open Code Results. Of 187 total items, 130 items were coded with an open code. The most common open code was Curriculum. Other frequently used open codes were Collaboration, Beyond Teaching, and Perception. Time and Awareness were least common. Description of common themes that emerged within each code is noted in the table below.

Code	Count	Percent of Total
Awareness	3	2.31%
Beyond Teaching	26	20.00%
Collaboration	31	23.85%
Curriculum	39	30.00%
Perception	21	16.15%
Time	10	7.69%
TOTAL	**130**	**100.00%**

Code	Description of Results
Awareness	The awareness coded items included these themes: Report of being aware of the need to engage in equity work but are not currently engaging due to (1) environmental - For example, COVID limitations or lack of participation in initiatives and (2) readiness factors - For example, a perception that training has not equipped them to take action.
Beyond Teaching	The beyond teaching coded items included these themes: Reports of equity work focused on items outside of the classroom such as (1) recruitment, (2) retention (3) policy, (4) scholarships, and (5) recognition related to equity.

Collaboration	The collaboration coded items included these themes: (1) The expressed value of interdisciplinary collaboration, (2) The perceived benefit of conversations including learning with and from peers and student's experience. (3) The perception of a lack of collaboration as a challenge to their equity work, such a perceived lack of practical support and feedback on their equity efforts.
Curriculum	The curriculum coded items included these themes: Reports of incorporating topics of equity into (1) course outcomes, (2) course curriculum, and (3) specific assignments or learning experiences.
Perception	The perception coded items included these themes: (1) The perception that evidence-based practices or available support is not effective or missing – For example, training should be non-threatening to white people, (2) The perception that there is no ongoing training. (3) The perception that self-inquiry is an ongoing practice and conversely that it is not necessary or not continual practice. (4) The perception of a lack of support for practical application and feedback. (5) Perceived difficulty in accessing course equity data. (6) Problematizing antiracism professional development led by white facilitators.
Time	The time coded items included these themes: Time is perceived as a significant barrier to equity work, including (1) perceived scheduling/time constraints, and (2) prioritization of other duties or teaching practices.

Code Interactions. Of the 187 items, 17 items were coded as both a source of efficacy and a teaching method. Of the 187 items, 22 items were coded as both a source of efficacy and an open code. Code interactions followed similar patterns in frequency with their base codes, except for the curriculum open code. Although the curriculum open code represents 30% of all open codes, it was not cross coded as a source of teacher efficacy in any instances.

	CR	AR	NR	TOTAL
+MST	4	1	0	5
-MST	2	0	1	3
+VRB	1	0	0	1
-VRB	0	0	0	0
+VXP	3	3	0	6
-VXP	0	0	1	1
+AFF	0	0	0	0
-AFF	0	0	1	1
TOTAL	10	4	3	17

ANTIRACIST TEACHING SELF-EFFICACY

	Curriculum	Collaboration	Beyond Teaching	Perception	Time	Awareness	TOTAL
+MST	0	2	1	2	0	0	5
-MST	0	3	3	0	1	1	8
+VRB	0	0	0	0	0	0	0
-VRB	0	0	0	1	1	0	2
+VXP	0	5	0	0	0	0	5
-VXP	0	0	0	1	0	0	1
+AFF	0	0	0	0	0	0	0
-AFF	0	0	0	1	0	0	1
TOTAL	0	10	4	5	2	1	22

References

Allen, I. E., & Seaman, J. (2017). Distance education enrollment report 2017. *Digital learning compass*.

Baker-Bell, A. (2020). Dismantling anti-black linguistic racism in English language arts classrooms: Toward an anti-racist black language pedagogy. Theory Into Practice, 59(1), 8-21. DOI: 10.1080/00405841.2019.1665415

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. Psychological Review, 84, 191–215.

Bandura, A. (1997). Self-efficacy: The exercise of control. New York: W. H. Freeman and Company.

Bell, B. (2020). White dominance in nursing education: A target for anti-racist efforts. Nursing Inquiry. 2021;28:e12379. https://doi.org/10.1111/nin.12379

Brooks, A. & Hesse-Biber, S. N. (2007). "An Invitation to feminist research" (pp. 1-26) in Feminist research practice: a primer (Eds. Hesse-Biber, S. N. Leavy, P). SAGE Publications.

Clark, R.E. (2012). Learning from Media: Arguments, Analysis, and Evidence (2nd Edition). Information Age Publishing, Charlotte: North Carolina.

Darling-Hammond, L. (2017). Teaching for social justice: Resources, relationships, and anti-racist practice. *Multicultural Perspectives, 19*(3). https://doi.org/10.1080/15210960.2017.1335039

Davis, A. & Livingstone, A. (2016). Sharing the stories of racism in doctoral education: The anti-racism project. *Journal of Teaching in Social Work, 36*(2). http://dx.doi.org/10.1080/08841233.2016.1147521

de Kadt, E. (2020) Promoting social justice in teaching and learning in higher education through professional development, Teaching in Higher Education, 25:7, 872-887, DOI: 10.1080/13562517.2019.1617685

Freire, P. (2014). *Pedagogy of the oppressed: 30th anniversary edition*. ProQuest eBook Central https://ebookcentral-proquest-com.ezproxy.mnsu.edu

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

Gleason, J., & Suvorov, R. (2019). Promoting social justice with CALL. CALICO Journal, 36(1), 1–7. https://doi.org/10.1558/cj.37162

Kasturi Behari-Leak (2017). New academics, new higher education contexts: a critical perspective on professional development, Teaching in Higher Education, 22:5, 485-500, DOI: 10.1080/13562517.2016.1273215

Kishimoto, K. (2018) Anti-racist pedagogy: From faculty's self-reflection to organizing within and beyond the classroom. *Race Ethnicity and Education, 21*(4), 540-554. DOI:10.1080/13613324.2016.1248824

Knowles, R. & Hawkman, A. (2020). Anti-racist quantitative research: Developing, validating, and implementing racialized teaching efficacy and racial fragility scales. The Urban Review. 52. 238-262. doi: 10.1007/s11256-019-00526-1.

Kumar, P., Saxena, C., & Baber, H. (2021). Learner-content interaction in e-learning-the moderating role of perceived harm of COVID-19 in assessing the satisfaction of   learners. Smart Learning Environments, 8(1), 1-15.

Ladson-Billings, G. (1995). But that's just good teaching! The case for culturally relevant pedagogy. Theory into Practice, 34(3), 159–165. https://doi.org/10.1080/00405849509543675

Martin, Sun, & Westine (2020). A systematic review of research on online teaching and learning from 2009 to 2018. Computers and Education (159). https://doi.org/10.1016/j.compedu.2020.104009

Martin, J.L., Bockmier-Sommers, D.K., Harris, C.L., & Martsch, M.D. (2022). Using Freirean and Rogerian theory to create anti-racist and peace-based intersectional online learning community. In X.M. Woodley & M. F. Rice (Eds.), *Designing Intersectional Online Education. Critical Teaching and Learning Practices* (pp. 118 – 135). Routledge.

Ortega, L. (2017). New CALL-SLA research interfaces for the 21st century: Towards equitable multilingualism. Calico journal, 34(3), 283–316. https://doi.org/ 10.1558/cj.33855

Papendieck, A. (2018). Technology for equity and social justice in education: A critical issue overview. Texas Education Review, 6(1), 1–9. https://doi.org/10.15781/ T2891278V

Sims, C. (2017). Disruptive fixation. Princeton University Press.

Siwatu, K. O. (2007). Preservice teachers' culturally responsive teaching self-efficacy and outcome expectancy beliefs. Teaching and Teacher Education, 23(7), 1086–1101. https://doi.org/10.1016/j.tate.2006.07.011

Taylor & Trevino (2022). The Good, the Bad, and the Ugly: Experiences, Barriers, and Self-Efficacy Enhancement for Social Justice-Oriented Faculty. Journal for Social Action in Counseling & Psychology, 14(1), 53-77. doi: 10.33043/JSACP.14.1.53-77. Retrieved from: https://openjournals.bsu.edu/jsacp/index

Tschannen-Moran, M., & Hoy, A. W. (2001). Teacher efficacy: Capturing an elusive construct. *Teaching and Teacher Education, 17*(7), 783–805. https://doi.org/10.1016/S0742-051X(01)00036-1

Yılmaz, A., & Söğüt, S. (2022). Language education for social justice: Reproductions or disruptions through technology. *Computers & Education*, 104535.

Yin, R. K. (2014). Case study research: design and methods (5 edition.). SAGE.