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Editorial

The Top 10 Trends in P-12 and Higher Education, 2024

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Introduction

In the editorial for this edition of *Culture, Education, and Future*, the editor-in-chief, the editors, and the editorial board present our choices for the *top 10 trends in education for 2024.* These trends are side effects of technological advances, political changes, and shifting cultural preferences; we project that they will affect educational systems in the foreseeable future. We have generated two Top-*10* lists, one for P-12 education and one for higher education.

We generate these lists to accomplish two goals. First, the intent is to focus readers' attention on emerging futures germane to this journal, events that emerge from or that generate cultural changes that affect education—culture, education, and the future. Second, the lists hopefully will stimulate researchers to write about subjects of interest to our readership, which will be appropriate submissions for *CEF*. If the list catches on, we may also make the *top 10 trends* an annual editorial.

The criteria for inclusion in our *Top 10* lists is related to a trend's importance as reflected in the frequency of headlines, editorials, and concerns found in educational news outlooks, such as *Education Week* and *Chronicles of Higher Education* (or equivalent outlets in various cultures). We additionally polled our Editors and the Editorial Board, who come from all over the globe, about trends in their cultures.

Several trends identified in the two lists are specific to given cultures, but most have more global influence. We invite scholars to write from both perspectives. The two sources list occasionally overlapped as they did regarding the impact of artificial intelligence, for example. In other cases, a trend was identified by different respondents for opposite reasons, such as when diversity policies were mentioned as opportunities by some and a problem by others. Finally, we saw regional differences that reflected efforts to rectify prior conditions such as colonialism or tradition. In each case, I have attempted to identify trends that are characteristic of large numbers of, if not cultures and nations.

Top 10 Trends in P-12 Education

#1. Artificial Intelligence

Generative artificial intelligence, or AI, is a clear number 1 choice for a top 10 trend in P-12 education for 2024. Generative AI, or the capacity to generate coherent, human-sounding text, presents several important challenges in K-12 education. An immediate, obvious challenge involves how integrating AI into P-12 curricula. Educators have experienced computers in

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education since 1976 with the first Apple Computer, but AI would seem to represent a leap forward that at least rivals the 1976 phase transition. However, it poses temptations to use AI programs such as the popular ChatGPT to write papers in fulfillment of class assignments. The temptation is to use generative AI instead of using one's brain. For now, the writing style of generative AI programs may be more sophisticated than many high school students are capable of, so plagiarism should be easy to spot. Further, AI still makes errors, some of which are obvious, which again will ease detection.

A bigger problem may relate to AI's ability to produce images that are hurtful or harmful—in effect, it offers new ways to bully or embarrass not previously available. For example, recently, a case arose in the U.S. in which some students generated and published fake nude pictures of girls in their schools. The capacity for such abuse is probably only in its infant stages; the future may bring many harmful examples.

In a more positive vein, educators will have to face the inevitability of AI and the challenge to revise their curricula to utilize AI's strengths. It could be used in the fine arts, for example, to generate pictures and paintings "in the style of…," thus teaching students about artists and how to spot or hear stylistic differences. Science teachers could use it to help students visualize complex models, such as chemical isomers. They could teach students how to write more effectively, how to criticize writing, or how to spot grammatical errors (using the non-generative AI program Grammarly, for example).

#2. Immigration

A challenge in many countries is a close number 2 trend in education. The political fallout is obvious, and part of the reason is its effect on education. Masses of immigrants are burdening the financial resources of P-12 education. It stains the capacity of school systems to provide enough teachers to teach the additional students, particularly teachers with language skills needed for these children. School building capacity is stretched, as are resources such as textbooks and consumables. Transportation is challenged, as is the ability to feed so many additional children. Educational systems are sufficiently flexible to address these challenges, and if history serves us, immigration will prove beneficial to nations, but it may take years to do so.

#3. The COVID-19 Pandemic

Covid was declared over in about 2021, but it is not over in education. Educators may struggle with post-pandemic effects for some time yet. Students are struggling to catch up academically with losses experienced when schools were shut down during the peak years of COVID-19. Editorial board members from several cultures reported mental health problems and falling attendance rates among students. Higher education educators are reporting changed expectations and behaviors that may be due in part to COVID-19. The effects of this pandemic may still linger for a while.

#4. Violence

In the U.S., mass shootings in schools are considered an epidemic, and schools are struggling with safety policies and actions. The absolute number or percentage of shootings would be considered statistically low in other situations, but this situation is about the loss of children,

and the loss of even one child to violence is too high. Furthermore, the spinoff effect on the psyche of the nation and on children produces significant damage. Children deal with active shooter drills in elementary schools, they hear about mass shootings on TV, and they sense the anxiety of their parents. Safety measures drain limited resources that could go into instructional programs and materials. The challenge, then, is to protect schools from harm and to protect children from fear.

Other countries suffer even more virulent attacks on children. The violence of war with attendant poverty, fear, and power struggles is overwhelming for children. Here, the percentages are significant, as is the fear in which children live. They have no life experiences to contextualize such brutality and terror. Education becomes moot when students are starving or living with death and injury. Education is more than math and science; it is about learning to live civilly with others and working together to improve life. Education, society, and culture are failing children and warring countries because it is trumped by violence.

#5. LGBTQ+

The right to dignity for LBGTQ+ persons has become a battle line in politically divided nations, and public education has become its battleground. Battles are fought over bathrooms, dress codes, sports, and rainbow symbols. They are expressed in contentious confrontations in school board meetings, pressure in legislative hallways, demands to purge libraries of perceived offensive materials, and heated ultimatums in administrator's offices.

#6. Censorship

Book banning should have died ages ago, but it has instead persisted over the decades in many nations, even in nations that consider themselves to be enlightened. In the U.S., for example, some state and district policies and laws require schools to purge books, which is considered by some to be offensive. In some states, history textbooks must tell only legislatively approved stories, minimizing or omitting such topics as slavery and presenting sanitized visions of other events. Student's access to knowledge has long been considered a bulwark of democracy, but this powerful idea is constricted when ideas are limited by ideology. Students' access to knowledge is conscribed, and the vibrant exchanges of ideas that foster innovation, creativity, and solutions to challenges are made much less vibrant.

#7. DEI

DEI, or diversity, equity, and inclusion, is considered by some as a "woke" movement (defined as awareness of social inequalities) and by others as an effort to improve inclusive atmospheres in P-12 education. DEI is being strongly politicized in some countries. This has led to conflicts over (and policies in support of or against) teaching critical race theory in schools (usually defined incorrectly as teaching about one group's transgressions against another), the use of history textbooks that include material that is not preferred by the dominant culture, the inclusion of library books that advocate woke agendas, and to culturally responsive teaching or social justice. Several respondents among the Editors and the Editorial Board of *CEF* saw DEI as a tool for increasing diversity in schools and for addressing social unfairness in public education.

Whichever perspective one has, it is clear from both news literature and from respondents that

DEI-related issues were arousing significant emotions that were spilling into schools. Indeed, schools are frequently battlegrounds for these societal wars as people fight to have their vision of what is good for society reflected in curriculum, policies, and practices in public education.

#8. Teacher Shortages

Several respondents and educational news providers reported teacher shortages in education. This may be attributable to several events. Major contenders include increasing governmental intrusion into education, acrimonious battles among parents over book banning, curriculum, LBGTQ+, and similar issues, intrusive parental demands of administrators, increasing expectations of policymakers, and other such hot-button issues. Salary is perennially an issue and may play a role in current shortages as well.

#9. Governmental Reforms

Some respondents referenced government-enacted reforms that resulted in conflicts with teachers. Conflicts over reforms are particularly opposed by unionized teachers.

#10. Alternative Curricula

Several respondents described trends away from traditional college preparation curricula to curricula that include technological and vocational courses. A couple of the respondents mentioned pressure to place less emphasis on STEM courses and to include music and other humanities.

Noteworthy But Not in the Top 10 for P-12 Education

Respondents from the Editors and the Editorial Board that didn't make it to the top-10 list. The primary reason for their lack of inclusion is because, while important, they weren't considered as important as those who made the cut. Some of the suggestions had become moot in education; other trends had been around for a while and were no longer particularly newsworthy. Regardless, they are sufficiently important to list as worthy of interest by researchers. These include competency-based education, internationalization, global competence, critical thinking and creativity, integration of technology, personalized learning approaches, social and emotional learning, overcoming the effects of colonialism, student empowerment, and learning about Indigenous peoples.

Top 10 Trends in Higher Education

#1. Artificial Intelligence

Generative AI is the #1 challenge in higher education, as it is in P-12 education. Here, the challenges are more significant. Higher education students are more knowledgeable than high schoolers and are more likely to get by with AI-enabled plagiarism. There is also a concern about faculty using AI to write journal manuscripts and how universities and journal editors should respond. I consulted with Michael Covington, Senior Research Scientist in The Institute for Artificial Intelligence at the University of Georgia, about these challenges, and he stated that the only viable way to detect plagiarism at present is to fact-check references and the text of manuscripts (thus exploiting the tendency of generative AI to fabricate information to

support its assertions). This means that editors must find at least one reviewer per submission with specific expertise in each article's core subject matter. Presently, computerized programs for detecting AI plagiarism are not able to reliably identify such problems, but that may improve with time. (For a more complete discussion of this issue, see my editorial in the second edition of *CEF*.)

As in the case of P-12 schools, however, there are benefits from AI, both in teaching and in developing answers to complex problems. AI is a blessing and a curse, as an old saying states.

#2. DEI

Diversity, equity, and inclusion programs, or DEI, are under fierce attack in the U.S. and elsewhere. As of June 2024, for example, the state of Texas in the U.S. has frozen or altered 131 scholarships for minority students (The Dallas Morning News, 2024). DEI has been instrumental in helping black and brown students access university resources and be successful at largely white schools. The impact of removing DEI on minority enrollment and overall college culture remains to be seen.

#3. Student Protests

In 2024, student protests erupted on numerous college campuses in North America, Europe, and the Middle East. Protesters supported one or the other side of the war. Non-participants on many of these campuses felt threatened and unsafe; classes and even graduation ceremonies were disrupted, and university buildings were occupied. It is, at this point, uncertain whether protests will resume in the fall; the dissipation of students back to their homes for summer and possible changes in political conditions in the Levant are probably determinant and currently unpredictable. For this reason, I nearly did not include protests as a trend—we do not know that they will return when school returns in the fall. However, important and inevitably long-term consequences of the protests will persist, including their impact on free speech, polarization on college campuses, and intimidation. This convinced me otherwise. These consequences are clearly trends in their own rights and are listed as such in this list. Free speech is a highly significant issue and is high on the list at #4; Politicization is #6, and intimidation is #8.

#4. Free Speech

The First Amendment to the U.S. Constitution enshrines a powerful belief in free speech rights, and nations around the world have embraced similar laws. The free-speech principle helps drive scholarship in higher education. Knowledge thrives in an atmosphere in which scholars can freely process information of all stripes, limited only by ethics and responsibility (scholars are unlikely to ask unsupportable and irresponsible questions such as, is intelligence genetically determined?). In recent months, however, free speech has been challenged in at least two ways. First, scholars and politicians, for example, have struggled with the question of just what speech is. Conservative lawmakers have railed against what they see as "unpatriotic" ideas being taught and discussed on university campuses and, in some cases, have banned such speech. Second, the free speech principle has, for some, become a question of whether one agrees or doesn't agree with such speech. Attacks against what one disagrees with have, at times, become vicious and even violent. This was witnessed dramatically in the Palestinian / Israeli protests on campuses across the globe. According to Eghbariah (2023), for

example, Harvard University's *Law Review* journal planned to publish a legal argument for the rights of Palestinians. The editors and author associated with a planned article were subjected to brutal doxing and even death threats, and the article was retracted. Finally, there is the very germane question of whether free speech includes hate speech; the generally accepted answer is that it does not, but hate speech is common among protestors.

#5. Evolving Student Expectations

Reports about the changing nature of students are appearing in scholarly outlets. Some report that students are increasingly resistant to reading class material, writing papers, and properly referencing claims in the papers they write (McMurtrie, 2024). Some report a higher incidence of rudeness among some students (Campbell et al., 2023). Today's students came out of the COVID-19 epidemic in their high school educational experiences, and that may affect their behaviors. These issues are separate from issues related to civil disobedience. They are culturally determined—Chinese students who are known for deference to authority would not behave this way. Nonetheless, changes in student behaviors, abilities, and preferences may be trending, and researchers would do well to keep an eye on this.

#6. Politicization of Universities

Universities, like P-12 schools, are being thrust increasingly into what is called the culture wars, or battles over right- versus left-wing conflicting perceptions and preferences for their country. These perceptions are about such things as integration, minority and women's studies, immigration, and control of women's bodies (notably abortion rights). Governments have passed legislation outlawing such things as teaching critical race theory and Black studies. Politically inspired degree programs have been implemented by politicians, ignoring the traditional hegemony of faculty over such matters. University presidents and governing boards have been forced to resign and have been replaced by politically preferred boards. Grants that provide public services deemed unacceptable by a given political party have been forced to shut down.

#7. Declining Faculty Pool

News outlets are reporting that faculty members are leaving states in which legislative bodies have enacted restraints on academic freedom, and others report that PhD graduates seeking employment are skittish about seeking employment with universities in these states. Other outlets report that PhDs are finding it more profitable and rewarding to work in businesses instead of universities.

#8. Intimidation

Intimidation has become a weapon in the politicization of universities, at least in the U.S. Faculty who take sides in the Palestinian – Israeli conflict have found themselves fired or having their contracts terminated (Hicks, 2024).

#9. Interdisciplinary Collaboration

Several respondents identified trending movements to increase interdisciplinary or even multidisciplinary collaboration. I am actually surprised that more people didn't key in on this.

In the U.S., it is not unusual for granting agencies such as the National Science Foundation to require cross-discipline support; grants for programs for curricular development, for example, may require that someone from Education be added to the team. Interdisciplinary teams have benefits in addition to their subject-matter expertise: Teams with diverse perspectives, for example, inject multiple realities into group dynamics, thus forcing the team to think outside of the limited perspective. People with leadership expertise can help manage the small group dynamics of grant teams or departmental groups. Personnel from other disciplines may bring a fresh understanding of program evaluation. There is evidence that diverse (i.e., multidisciplinary) groups are effective at fostering creativity, learning, and effectiveness (Mannix & Neale, 2005).

#10. Curricular Emphases

Several board members identified trending emphases on vocational reforms in their nations. Their governments point to a greater need for skilled workforces to support this trend. Others observe that politicians are seeking to merge research with vocational training. One respondent noted that their country wanted to stimulate creativity and innovation and was consequently emphasizing creativity, multidisciplinary research, industry-academia collaboration, and entrepreneurial behavior. These trends were specific to given countries, but their common thread involved desires to upgrade educational systems to improve their country's competitiveness or to create a citizenry that met the emerging needs of their nation.

Noteworthy But Not in the Top 10 for P-12 Education

Several trends were noteworthy but did not make it into the top 10 lists in higher education. However, we felt that the following should be mentioned: The U.S. is beginning to see graduate students and post-doctoral students seeking to unionize. We will watch this one, and it may make it to the top 10 next year. Faculty unionization was mentioned by a respondent as competency-based teaching and assessment, sustainable development goals, strengthening sector/university cooperation, dual enrollment, focus on employability skills, globalization of higher education, and demise of humanities programs. Many of these "also-rans" are specific to given countries but still constitute a trending issue in those countries; thus, they should be watched to see how they evolve.

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References

Campbell, L. O., Jones J., T., Sutter, C. C., & Haugen, J. S. (2023). The development of the Academic Incivility Scale for higher education. *Learning Environments Research*, 1-17.

Mannix, E., & Neale, M. A. (2005). What differences make a difference: The promise and reality of diverse teams in organizations. *Psychological Science in the Public Interest*, *6*(2), 31-55.

Eghbariah, R. (2023, November 21). The Harvard Law Review refused to run this piece about genocide in Gaza. *The Nation.* Retrieved 18 June, 2024 from https://www.thenation.com/article/archive/harvard-law-review-gaza-israel-genocide.

McMurtrie, B. (2024, May 9). Teaching: How to teach about contentious topics like Israel and Hamas. *The Chronicles of Higher Education*. Retrieved 18 June, 2024 from https://www.chronicle.com/newsletter/teaching/2024-05-09

Hicks, M. (2024, June 17). A holocaust scholar called Israel's actions in Gaza 'Genocide.' It cost him a job offer. *The Chronicles of Higher Education*. Retrieved 18 June, 2024 from https://www.chronicle.com/article/a-holocaust-scholar-called-israels-actions-in-palestine-genocide-it-cost-him-a-job-offer

The Dallas Morning News (2024, June 28). Retrieved 18 June, 2024 from https://www.dallasnews.com/news/education/2024/06/17/131-college-scholarships-put-on-hold-or-modified-due-to-texas-dei-ban-documents-show/

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Article

Radial blended-collaboration in doctoral education: Insights from an Indonesian higher education institute

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Abstract

This study explored how doctoral educators apply a radial blended collaborative (RBC) strategy to teach EFL speaking. This study used a narrative case study design and a qualitative approach. In doing so, teachers employed eight RBCs' strategies: raising collaboration awareness, forming groups based on 21st-century skills, using controlled-chosen topics and theme-based prior knowledge, employing snowball questioning techniques, engaging in role-play in different contexts, conducting peer evaluations, and providing oral and written feedback. This study found that technology integration, such as WhatsApp, Zoom Meeting, Google Classroom, and electronic mail, enhanced the learning experience, whereas pooling WhatsApp messages was used to direct the chosen discussion topics. The results demonstrated that RBC significantly improved students' speaking performance across four instructional dimensions: collaborative awareness, active learning, classroom interaction, and technological integration. Future research should aim to enhance spoken communication by integrating technology in assessments and fostering collaborative learning environments.

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Blended-collaboration; Doctoral-educator; EFL speaking; Instruction strategy

Introduction

In particular, non-native speakers (NNs) challenge teaching and learning to speak in an English as a Foreign Language (EFL) context (Chien, 2018; Chun, 2014). Challenges in this work could arise from both teachers (Baleghizadeh & Nasrollahi Shahri, 2014) and students (Jao et al., 2022; Savaşç, 2014), who may occasionally come from the school environment (Malebese & Tlali, 2020; Rienties et al., 2018). Orfan (2020) examined the challenges faced by EFL students, such as linguistic deficiencies (Kramsch, 2000), oral language processing (Tsegaye et al., 2011), dialogue (Chien, 2018), and affective (Gan, 2013). Another example, as examined by Butarbutar et al. (2023), is that speaking is more challenging in school, and there is a lack of comprehension of the use of speaking EFL outside instructional contexts (Lising, 2021).

Consequently, teachers are expected to be prepared to address these challenges using various strategies (Yang, 1998). Teachers and educators have uncovered, examined, and explored a wide variety of teaching strategies at both the theoretical and practical levels (Timpe-Laughlin et al., 2022). For instance, Tremblay-Wragg et al. (2021) discovered that variety is a key teaching method for encouraging students' constructive contributions and

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motivation (Bower, 2019; Uztosun, 2020) in the learning process in higher education. To promote and develop students' speaking skills (Ekoç, 2021), students received authentic learning (Hwang et al., 2022) about familiarization with an art form (Borrie et al., 2012). However, little is known about teaching EFL speaking strategies based on the experience of doctoral educators.

Based on the aforementioned factors, it can be said that the current study is urgently needed because speaking is closely related to other language abilities, including reading, writing, listening, and other language skills (Butarbutar & Leba, 2023). This study offers modest and substantial speaking performance development, both synchronously and asynchronously, to help students learn to talk more actively and collaboratively and overcome the above-mentioned challenges. Additionally, this study intends to react to Ginja and Chen (2023), who requested discussions, implications, and proposals that limited English activity planning and practice are necessary for the effectiveness of English immersion programs.

This study contributes valuable insights into the application of RBC in EFL speaking instruction, offering practical implications for educators and policymakers for enhancing language learning outcomes in diverse educational settings. By addressing technological constraints and leveraging identified instructional dimensions, educators can effectively integrate RBC into their teaching practices, ultimately benefiting EFL learners' speaking proficiency and overall language acquisition. This study aims to explore, confirm, enlarge, and explain innovative methods for teaching EFL in an Indonesian higher education context through RBC. The investigation also tactfully addressed the obstacles encountered by educators during implementation. The inquiry poses the following research question to initiate and progress the study: "How do doctoral educators employ radial blended collaboration in teaching EFL speaking?"

Instructional Radial Blended-Collaborative in a Nutshell

Radial-blended collaboration (RBC) is a novel strategy that draws on the empirical data obtained from doctoral educators. This approach is based on an ontology that incorporates interdependence theory in collaboration. RBC ontology distinguishes between radial strategies that can be separated from one another, whereas interdependence serves as a tactic. According to Deutsch's (1949) interdependence theory, one person's goals coincide with those of others. This theory, which clarifies the dynamics between collaborative and competitive individuals in working and learning groups, serves as the foundation for this study. The concept of "social interdependence" describes how pupils try to achieve, develop healthy relationships, make psychological adjustments, and act socially competently. What distinguishes a group from others is the interdependence between its members. Consequently, the group is dynamic, and each member's success in one group affects the success of the entire group. Shared goals facilitate interdependence among group members (Johnson & Johnson, 1989). Positive social interdependence exists when the actions of others affect a person's ability to achieve goals (Bruffee, 1984; Johnson, 2003).

In implementing RBC, positive social interdependence encourages high-quality group work and collaboration (Chiriac & Granström, 2012). To help students communicate more clearly, competently, and collaboratively, the current study suggests the following eight strategies: (1) raising collaboration awareness, (2) 21st-century skill group formation, (3) controlled-chosen topics, (4) theme-based prior knowledge, (5) snowball-questioning techniques, (6)

role-play in different contexts, (7) teacher and students' peer evaluation, and (8) oral and written feedback, in which educators use WhatsApp (WAG) (Butarbutar, 2019; Butarbutar et al., 2022) and Zoom Meeting for synchronous collaboration, whereas Google Classroom (GC) and electronic mail (E-mail) are used for asynchronous tasks. In addition, pooling WAG was used to control or guide the chosen discussion topics (Figure 1 and Table 1).

Method

Research Design

In line with the objectives of this study, a narrative case study design with a qualitative approach was adopted. This approach involved the involvement of three doctoral educators. The purpose of this design was to gain insight into how the participants interpreted their experiences, constructed their knowledge, and attributed meaning to their experiences when using RBC in EFL-speaking classes. To achieve this goal, we followed the recommendations of Miles and Huberman (1994) and Tellis (1997), who argued that a case study design was more suitable because it was grounded in reality, contextually relevant, and based on the participants' experiences.

Research Context

Research conducted at the University of Musamus Merauke, situated in South Papua, Indonesia, specifically within the English Education Department, offers a distinctive context for investigating English language education. This department likely functions as a center for preparing future English language educators and professionals in the region. Considering that this study focuses on English as a Foreign Language (EFL), it implies that English is not the primary language spoken in the local community. This emphasizes the significance of effective language instruction in enabling students to communicate proficiently in English, which is often a requirement for academic and professional advancement in a globalized world. Moreover, concentration in the English Education Department indicates a focus on pedagogical approaches and methodologies specifically designed for teaching English. Three EFL teachers with doctoral degrees instruct this. This might involve curriculum development, language assessment, teacher training, and research aimed at enhancing English language instruction within the university and potentially in the broader educational context of South Papua.

Participants

The researchers employed a purposive sampling strategy (Campbell et al., 2020) to select participants based on their educational background, specifically their possession of a doctoral degree and their extensive experience as EFL teachers, which demonstrates their proficiency in conducting radial blended collaboration. To familiarize themselves with the study's purpose, three doctoral students were employed as participants: two female and one male. Their age was under 50 years, and they had more than 15 years of experience as EFL teachers. Participant 1 was labeled E1, Participant 2 was labeled E2, and the last participant was labeled E3.

To know more about them, E1 has been teaching English since 1992, according to data gathered at one of the border state universities in Indonesia. She was an active lecturer who encouraged her students to learn EFL integrated with technology. For example, using blended learning to avoid monotony and boredom in classes; if she taught them in the classroom, she would make an effort to trigger them through video. This is expected to energize students' interest in and motivation to learn English.

Meanwhile, E2 has been a professional lecturer and has held an English proficiency certification since 2012. He has attended many national and international conferences. In addition, he has a few publications indexed in reputable journals. To help students become more involved in speaking EFL, he often used project-based learning. Uniquely, to motivate students to learn to speak EFL, he always declared the motivated clause, "The more you speak, the more you are fluent; Bravo and Proficiat." This means that one should not worry, and regardless of the problem, it is important to remember that one must try as much as possible.

E3 is an EFL lecturer at a private college. She holds an English proficiency certification. In addition, she has always used the blended learning method when teaching speaking classes. Interestingly, she often gave extra classes to students in the evening, even on holidays. In this vein, she wanted all her students to be fluent in speaking EFL. Moreover, she suggests that her students attend many more seminars and workshops to enrich and enhance their global knowledge. Therefore, all participants used English as a Foreign Language (FL). However, to make speaking fluently easier, they used bilingualism to force a habit.

Data Collection

To obtain information, extensive online interviews were conducted with the participants through video conferences on WhatsApp. These interviews were unstructured in nature (Berry, 1999; Guest et al., 2013; Morris, 2015) and served the purpose of gaining a deeper understanding of instructional RBC, including implementation, as it pertains to the tasks used and students' responses.

The following is an example of the interview used in this study: "Would you kindly share your teaching experience after obtaining a doctoral degree? Additionally, how do you incorporate radial blended collaborative learning in EFL speaking?" The interviews lasted approximately 60 minutes on average, with interviewees preferring a relaxed and flexible setting for the conversation. The researchers conducted interviews with participants on their personal mobile phones.

To guarantee the dependability of the interview results, the researchers administered an open-ended questionnaire (Husain et al., 2012) to the participants. This questionnaire aimed to verify and confirm what had been explored through online interviews. Furthermore, the researchers scrutinized the documents (lesson plans, task-based projects, evaluation lists, students' evaluation control cards, and faculty curriculum) that participants utilized during collaborative activities. This document analysis was used to provide evidence of students' speaking achievements and prevent bias in the interview results.

Data Analysis

Thematic analysis, which entails the process of identifying, analyzing, and reporting patterns (themes) within the data, was employed to analyze the data. This method involves systematically organizing and interpreting textual or visual data to uncover underlying meanings, concepts, and patterns. Braun & Clarke (2006) provided a comprehensive guide for thematic analysis that included familiarization with the data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing a final analysis. Data on instructional dimensions were divided into four dimensions for analysis: (1) learning motivation, (2) active learning, (3) classroom interaction, and (4) technology venue.

Results and Discussion

Relevant to the inquiry of the study, as mentioned previously, is "How do doctoral educators apply radial blended collaborative teaching of EFL speaking?" As shown in Table 1 and Figure 1, the interview findings revealed that educators gave eight RBC instructions.

Table 1. Instructional RBC

Instructional dimensions	Sub-instructions	Narration	Student's progress
Learning motivation	Raising collaboration awareness	The dependency on collaboration is a measure of success.	Collaboration skills
Active learning	21st century skills group formation	communicative, collaborative, thinking critically, and creative	21st-century skills
	Controlled-chosen topics	Students were restricted or assisted by teachers in selecting discussion topics.	Boosting speaking motivation, confidence, reducing anxiety, socio-linguistic competence
	Role-play different contexts	Give each group-specific character a role-play with.	
	Theme-based prior knowledge	Students were asked to select discussion topics that matched their knowledge or experience at the time.	
Classroom interaction	Snowball questioning technique	Warm-up questions were first asked of one student, then of two or more, and finally of the entire class.	Fluency, accuracy, and presentation skills
	Reflective Journal	" During the discussion, I consistently observed each student's development."	
	Teacher and peer evaluation	" I asked students to evaluate their peers when other groups led discussions; I called this peer evaluation.	

	Oral and written feedback	"The chat room's panacea was "Speak up, speak up anymore, whatever you know," and I frequently used the phrases "You are smart, Bravo, and Proficiat."	
Technology venue/integration	WhatsApp (WAG) and Zoom Meeting Google Classroom (GC) and electronic mail (E-mail Pooling WAG	Synchronous discussion Asynchronous instruction, tasks, assignment, and evaluation Using it for controlling or guiding chosen discussion topics	Collaboration skills: responsibility & punctuality

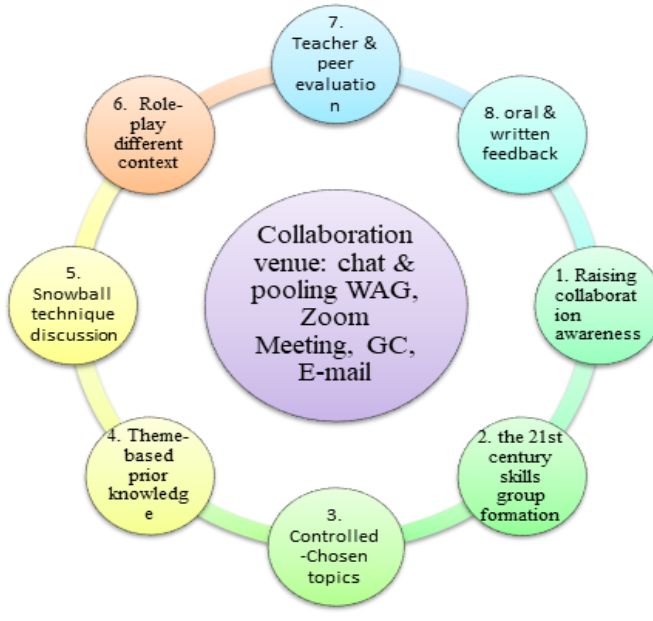

Figure 1. Instructional RBC strategies

To answer the research question, 'How do doctoral educators utilize radial blended collaborative teaching EFL speaking?' In line with the findings in the previous section, this study confirmed eight instructional RBCs that help students improve their speaking skills. These RBC can be divided into four instructional dimensions: (1) making students more aware of collaboration, (2) active learning, (3) classroom interaction, and (4) technology venues. The following is a detailed discussion.

1. Raising Collaboration Awareness

The research uncovered the fact that instructors cultivate collaboration from the outset of class sessions, as per the insights gleaned from interviews and document analysis. The intention is to deter free riders and avoid leader-centric monopolies by fostering mutual

understanding and recognizing the worth of collaboration. Furthermore, it encourages students to work together in order to attain group objectives.

Therefore, fostering collaboration can be viewed as constructive interdependence (Laal, 2013) rather than competition. Other themes covered include effective time management, conflict resolution, taking ownership or accountability (Beth et al., 2015; Siqin & Chu, 2021), peer scaffolding behaviors (Ardiningtiyas et al., 2023), and qualities that contribute to group success. These skills are relevant to the notion of "negotiated interaction ability" as introduced by Ellis (1990). In a similar vein, promoting collaboration awareness aligns with Carter and McCarthy's (1997) educational awareness-raising initiatives. They posited that teaching and enhancing spoken language skills can be accomplished through awareness-raising activities.

2. The 21st-Century Skills Group Formation

The level of student engagement in classroom activities is a form of active learning. This situation has had an impact on both educators and students. It is important to continue the teaching process for an extended period, as it benefits students' acquisition of knowledge, attitudes, and skills (Hurd, 2000). This aligns with our findings, which indicate that educators group students based on their proficiency in 21st-century skills, including communication, collaboration, critical thinking, and creativity, as each student is unique (Hasyim et al., 2024). The objective of this instruction was to motivate students to participate actively in speaking group activities. Additionally, it is important to encourage them to collaborate with group members with diverse backgrounds, genders, and learning styles (Butarbutar, 2021). Dugas (2017) also suggests that various interventions can help students understand their individual responsibilities and contribute to group performance. Kanika et al. (2022) highlighted the impact of varying group arrangements on students' experiences and collaborative success.

Furthermore, it is important to note that the development of 21st-century skills is often concurrent with the enhancement of teachers' abilities (Burns, 1998). According to this perspective, educators and instructors can assess language performance by discussing the responsibilities and rights of speakers in various situations. This emphasizes the role of the students, as group dynamics depend on their leadership in conversations. This indicates that assigning students to appropriate discussion roles can help them acquire commonly used vocabulary. In this context, we agree that engaging students in negotiations about effective classroom strategies can improve their communication skills. Dornyei and Thurrell (1991) identified several such strategies, including initiating, responding, challenging, and concluding discussions.

3. Controlled-Chosen Topics

The results of the study found that the notion of controlled-chosen topics acquires added significance as it relates to the manner in which groups of learners select, concentrate on, and interact with specific subject matter. Collaborative learning accentuates cooperative efforts among individuals to attain shared learning objectives, and making prudent choices regarding topics is essential for promoting productive collaboration. Hence, the more productively students collaborate in the chosen topic discussion, the more actively they

speak. Our findings are consistent with those of Richards (1990), who found that direct (controlled), indirect (controlled), and mixed techniques and activities can enhance oral communication. Practically, teachers achieve this by utilizing the pooled WAG feature to direct or manage the conversation topics that they have selected. They discussed some of the themes provided in this setting, but at times, the educators took direct charge and facilitated effective classroom interactions. In addition, the instructors limited the themes that students could choose for RBC lessons. This was done to ensure that the learning objectives in the lesson plans aligned with the curriculum and themes selected by the students. This also helps maintain the chronological order of the teacher assessment list.

4. Theme-based Prior Knowledge

According to Vygotsky (1978), learning is a social process that unfolds through interaction with others, particularly with more knowledgeable peers and adults. In learning environments inspired by Vygotsky's theory, learners engage in joint activities and discussions and collaborate to solve problems, share ideas, and construct new knowledge. The theme-based prior knowledge alluded to in the sentence pertains to the shared understanding and background knowledge that the participants brought to the collaborative learning experience. In learning environments based on Vygotsky's theory, learners draw upon their existing knowledge, experiences, and perspectives, thereby contributing to the collective construction of meaning and understanding. This prior knowledge serves as a foundation for collaboration, allowing participants to engage in meaningful dialogue, scaffold each other's learning, and collaboratively co-construct their knowledge.

This study demonstrated that educators provide support to their students in selecting themes that draw upon their own prior knowledge and experiences, both positive and negative, in a collaborative manner. In line with the findings of Chen & Goh (2011), using activities that are familiar to students is an effective technique for teaching oral English skills to higher education students. Moreover, this aligns with Johnson & Johnson's (1989) principles of positive interdependence and promotional interaction, which emphasize the importance of group discussion in promoting increased speaking drive and confidence while reducing stress and anxiety levels. By employing theme-based prior knowledge pedagogy, group members are encouraged to engage in active participation and exchange ideas, leading to a more effective learning experience.

5. Snowball Technique Question for Guiding Discussion

The educators randomly selected a group member for a warm-up discussion session based on the interview results. Subsequently, they proceeded to the second and third students and, finally, to the entire group and the entire class. According to McCroskey and Richmond (1990), the goal of this strategy is to involve every student and contribute to group discussions. In accordance with this, Kalantari (2009) emphasized that one method of classroom engagement strategy is the use of questions. However, the results of this study sometimes showed that students responded to the question by summarizing or reformulating what their peers had said. For instance, a student may have said, "I agree with my friend 'A' and would like to add..." Similarly, Burns (1998) suggests that the snowball technique, which involves asking questions, is an application of the following discussion strategies: summarizing, rebutting, and reinforcing positions.

6. Role-play in Different Contexts

The results of the current study demonstrated that individuals appear more active and motivated to participate in group conversations when they perform their roles in diverse environments. They felt that playing in various settings effectively improved their capacity to express their personal experience. Ladousse (1989) offered a similar training method: educators might create role-play as a means of fostering classroom interactions. Additionally, our findings are related to Eggins & Slade's (1997) description of causal discussion in a multicultural setting, which is advised during speaking instruction. With regard to this instruction, we concur with Burns (1998), who discussed classroom activities for teaching spoken language and emphasized the cultural and social significance of various spoken genres. Burns (1998) noted that teachers and educators should provide students with the opportunity to act in accordance with their own cultures and first languages before inviting them to discuss and compare in other circumstances. The second focuses on improving fluency through communicative tasks, which in turn create possibilities for growing functional language use through unstructured activities. This appears to be parallel to Nunan's (1989) role-playing in diverse contexts. Nevertheless, our results are consistent with those of Burns (1989), who claimed that information exchange and bargaining are effective speaking teaching methods. She described these strategies as indirect or transfer procedures designed to boost learner autonomy and promote more realistic language use.

7. Teacher and students' peer evaluation

To consolidate and reinforce students' speaking skills, instructors provide mini-guided book evaluations that students can use to evaluate their peers. It attempts to enhance the way students display group projects. Educators believe that peer review is one way to guarantee the success of synchronous and asynchronous collaborative learning. Students were graded verbally and in writing by their peers after giving presentations to groups. Individuals who employed these strategies were more likely to speak clearly after repeating or rephrasing their errors. Consequently, their peers can serve as scaffolds (Ardiningtiyas et al., 2023). A brief snippet clarifies the following points.

> To help me deliver a thoughtful and objective rating, I requested that every one of my students review and make some helpful suggestions. Students should do better in meetings after peer evaluation (E2, January 15, 2023).

Teachers also conducted synchronous and asynchronous observations throughout the discussion session to support the students' peer evaluations. Additionally, both individuals and groups were assessed. These assessments must be considered and examined when the conversation ends. The evaluation results are references that must be entered into students' control cards. There was obvious agreement between the study and the students' control cards, particularly in terms of fluency, correctness, and presentation abilities. In conclusion, the results of this study provide verifiable evidence for RBC in the subject matter. Murphy (2022) contends that self-and peer assessment can be used in conjunction with this training to ensure that it is a crucial component of pedagogical practice both in person and online. Our results support Johnson & Johnson's (1989) findings on the beneficial interaction of beneficial interdependence, particularly helping and assisting each group member. Peer evaluation is strongly advised for students, both individually and as members of groups.

8. Oral and Written Feedback

The findings of the study included statements such as feedback tokens in addition to the feedback itself, such as "practice anymore; the more you practice, the more confident you become," and similar expressions. While written feedback was provided in the chat room of the WAG venue, oral input was provided in the synchronous venue. Through empirical research, educators have realized that vocal feedback motivates students to speak with greater fluency, assurance, and accuracy. Their performance improved, which is in line with this result. They were encouraged to be more accountable and prompt in their responses to each group project through written feedback, which was visible in the chat room and Google Classroom environment (Ardiningtiyas et al., 2023; Butarbutar et al., 2023). Hence, collaborative skills are developed simultaneously. We agree with Ebadijalal and Yousofi (2023), who stated that oral proficiency, self-confidence, openness to communication, risk-taking, engagement, and self-directed speaking could improve speaking performance in the presence of oral peer feedback (Nur & Butarbutar, 2022; Nur et al., 2022).

Conclusion and Implications

The results show that radial collaborative blended learning (RBC) is a good way to teach speaking skills in English as a Foreign Language (EFL) because it encourages students to work together and can be used with either synchronous or asynchronous blended learning. To implement this approach, teachers employed eight radial collaborative strategies: raising collaboration awareness, forming groups based on 21st-century skills, using controlled-chosen topics and theme-based prior knowledge, employing snowball questioning techniques, engaging in role-play in different contexts, conducting peer evaluations, and providing oral and written feedback. The study found that the use of WhatsApp (Butarbutar, 2019; Butarbutar et al., 2022), Zoom Meeting, Google Classroom, and electronic mail enhanced the learning experience, whereas pooling WhatsApp messages was used to direct the chosen discussion topics. The results demonstrated that RCL significantly improved students' speaking performance across four instructional dimensions: collaborative awareness, active learning, classroom interaction, and technology integration.

In summary, this study highlights the effectiveness of the RBC in enhancing speaking skills in EFL settings and offers practical recommendations for educators who wish to implement this innovative approach in their instruction. With the implementation of collaborative strategies, utilization of technological resources, and emphasis on assessment and feedback, educators can cultivate engaging and effective learning experiences that foster collaborative speaking competence in students. Furthermore, this study suggests that curricula, instructional materials, and assessment methods should be developed based on students' prior knowledge and experience. The goal was to foster interdependence in group work by enabling students to make informed topic choices while still benefiting from teacher guidance. This approach is referred to as "free-controlled."

Syllabi, tasks, methods, approaches, strategies, and models should be developed based on the student's prior experiences. This has implications for anyone who aspires to engage in and contribute to EFL teaching and learning, especially non-native speakers. This is why we challenge students to be independent in their chosen subjects while still being under the direction of teachers; we call this “free-controlled”.

This study is limited by the fact that technology-assisted peer learning assessments hold promise in enhancing collaborative learning experiences. Limitations related to access to technology, internet connectivity issues, and digital literacy among students may affect the effectiveness and equity of such approaches. Apart from this RBC in teaching English as a Foreign Language (EFL), this study did not investigate the challenges encountered by doctoral EFL teachers in implementing RBC. This is considered a limitation of this study, and it is recommended that future studies address this gap. Furthermore, to enhance the application of RBC, it is suggested that future research should focus on the following areas: (1) incorporating fluency-oriented speaking tasks and open-ended speaking diagnostic tasks, (2) designing for online assessment and evaluation of speaking rubrics, (3) employing technology-assisted peer learning assessments, (4) examining gender disparities in collaborative abilities, (5) implementing projects based on collaboration using pre- and post-group models, and (6) exploring projects based on classroom interaction-based trending topics.

Declarations

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References

Ardiningtyas, S. Y., Butarbutar, R., Weda, S., & Nur, S. (2023). Online scaffolding behavior for speaking EFL improvement: narrative inquiry issues. *Interactive Learning Environments*, 1-11. https://doi.org/10.1080/10494820.2023.2207608

Baleghizadeh, S., & Nasrollahi Shahri, M. N. (2014). EFL teachers' conceptions of speaking competence in English. *Teachers and Teaching, 20*(6), 738-754.

Berry, R. S. Y. (1999). Collecting data by in-depth interviewing. *Proceeding of Research, British Educational Research Association Annual Conference* (pp. 1-10), University of Sussex at Brighton. https://www.angelfire.com/nb/ba1199/lesson016/indepth.htm

Beth, A. D., Jordan, M. E., Schallert, D. L., Reed, J. H., & Kim, M. (2015). Responsibility and generativity in online learning communities. *Interactive Learning Environments, 23*(4), 471-484.

Borrie, S. A., McAuliffe, M. J., Liss, J. M., Kirk, C., O'Beirne, G. A., & Anderson, T. (2012). Familiarisation conditions and the mechanisms that underlie improved recognition of dysarthric speech. *Language and Cognitive Processes, 27*(7-8), 1039-1055

Bower, K. (2019). Explaining motivation in language learning: a framework for evaluation and research. *The Language Learning Journal*, *47*(5), 558-574. https://doi.org/10.1080/09571736.2017.1321035

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Bruffee, K. (1984). Collaborative learning and the "Conversation of Mankind." *College English, 46*(7), 635-652. https://doi.org/10.2307/376924

Burns, A. (1998). Teaching speaking. *Annual Review of Applied Linguistics,* 18, 102-123. https://doi.org/10.1017/s0267190500003500

Butarbutar, R. (2019). The study impact of Whatsapp group on critical reading skill. *Magistra: Jurnal Keguruan Dan Ilmu Pendidikan, 6*(1), 045-051.

Butarbutar, R. (2021). Learner's perception of task difficulties in technology-mediated task-based language teaching. *Englisia: Journal of Language, Education, and Humanities*, *9*(1), 129-144.

Butarbutar, R., & Leba, S. M. R. (2023). Teachers' perspectives on teaching EFL speaking virtually: A case study of COVID-19 pandemic survival. *American Journal of Social Sciences and Humanities, 8*(1), 46-54.

Butarbutar, R., Leba, S. M. R., & Sauhenda, A. F. (2022). The impact of video integrated with Bloom's taxonomy on the improvement of English-speaking performance. *JEES (Journal of English Educators Society), 7*(2), 126-134.

Butarbutar, R., Ruing, F. H., Basri, N., Tuharea, V. U., & Radja Leba, S. M. (2023). Unpacking Online Collaborative Learning in Teaching EFL Speaking: Insights from Three Rural Area Case Studies. *The Qualitative Report*. https://doi.org/10.46743/2160-3715/2023.6165

Butarbutar, R., Weda, S., & Nur, S. (2023). Guided-blended collaborative learning in speaking class: Voices of non-native English teachers and students from eastern Indonesia. *American Journal of Education and Learning, 8*(1), 88–99. https://doi.org/10.55284/ajel.v8i1.890

Campbell, S., Greenwood, M., Prior, S., Shearer, T., Walkem, K., Young, S., ... & Walker, K. (2020). Purposive sampling: complex or simple? Research case examples. *Journal of Research in Nursing, 25*(8), 652-661.

Carter, R., & McCarthy, M. (1997). *Exploring spoken English*. Cambridge University Press.

Chan, S., & Yuen, M. (2014). Personal and environmental factors affecting teachers' creativity-fostering practices in Hong Kong. *Thinking Skills and Creativity*, 12, 69-77. https://doi.org/10.1016/j.tsc.2014.02.003

Chen, Z., & Goh, C. (2011). Teaching oral English in higher education: Challenges to EFL teachers. *Teaching in Higher Education, 16*(3), 333-345.

Chien, C. W. (2018). Professional dialogue among elementary school English teachers in Taiwan: Current challenges and issues. *Education, 46*(2), 188-201.

Chiriac, E. H., & Granström, K. (2012). Teachers' leadership and students' experience of group work. *Teachers and Teaching, 18*(3), 345-363.

Chun, S. Y. (2014). EFL learners' beliefs about native and non-native English-speaking teachers: perceived strengths, weaknesses, and preferences. *Journal of Multilingual and Multicultural Development*, *35*(6), 563-579.

Deutsch, M. (1949). A theory of co-operation and competition. *Human Relations, 2*(2), 129-152.

Dörnyei, Z., & Thurrell, S. (1991). Strategic competence and how to teach it. *ELT Journal*, 45, 16–23. https://doi.org/10.1093/elt/45.1.16

Dugas, D. (2017). Group dynamics and individual roles: A differentiated approach to social-emotional learning. *The Clearing House: A Journal of Educational Strategies, Issues and Ideas*, *90*(2), 41-47.

Ebadijalal, M., & Yousofi, N. (2023). The impact of mobile-assisted peer feedback on EFL learners' speaking performance and anxiety: Does language make a difference?. *The Language Learning Journal*, 51(1), 112-130.

Eggins, S., & Slade, D. (1997). *Analysing casual conversation*. Cassell.

Ekoç, A. (2021). Teaching speaking with works of art in a preparatory class at university. *Innovation in Language Learning and Teaching*, *15*(5), 415-427.

Ellis, R. (1990). *Instructed second language acquisition*. Blackwell.

Ernst, G. (1994). "Talking circle": Conversation and negotiation in the ESL classroom. *TESOL Quarterly*, 28, 293-322. https://doi.org/10.2307/3587435

Gan, Z. (2013). Understanding English speaking difficulties: An investigation of two Chinese populations. *Journal of Multilingual and Multicultural Development*, *34*(3), 231-248.

Ginja, T. G., & Chen, X. (2023). Exploring middle school teachers' understanding of English immersion and their instructional practices in Xi'an, China. *Educational Studies*, 1-16. https://doi.org/10.1080/00131946.2023.2165925

Guest, G., Namey, E., & Mitchell, M. (2013). *Collecting qualitative data: A field manual for applied research.* Sage. https://doi.org/10.4135/9781506374680.n4

Hasyim, N., Arismunandar, Butarbutar, R., Ramli, A. M., & Malik Nur, I. D. (2024). Mind mapping of teachers' readiness for online teaching and learning: A reflective study of urban and suburban areas. *Cogent Education, 11*(1). https://doi.org/10.1080/2331186x.2023.2292864

Hurd, P. D. (2000). Active learning. Journal of Pharmacy Teaching, 7(3), 29-47.

Husain, H., Bais, B., Hussain, A., & Samad, S. A. (2012). How to construct open ended questions. *Procedia-Social and Behavioral Sciences*, 60, 456-462. https://doi.org/10.1016/j.sbspro.2012.09.406

Hwang, W. Y., Guo, B. C., Hoang, A., Chang, C. C., & Wu, N. T. (2022). Facilitating authentic contextual EFL speaking and conversation with smart mechanisms and investigating its influence on learning achievements. *Computer Assisted Language Learning*, 1-27. https://doi.org/10.1080/09588221.2022.2095406

Jao, C. Y., Yeh, H. C., Huang, W. R., & Chen, N. S. (2022). Using video dubbing to foster college students' English-speaking ability. *Computer Assisted Language Learning*, 1-23. https://doi.org/10.1080/09588221.2022.2049824

Johnson, D. W. (2003). Social interdependence: interrelationships among theory, research, and practice. *American Psychologist*, *58*(11), 934. https://doi.org/10.1037/0003-066x.58.11.934

Johnson, D. W., & Johnson R. (1989). *Cooperation and competition: Theory and research*. Interaction Book Company.

Kalantari, R. (2009). Techniques for Classroom Interaction. *International Journal of Language Studies (IJLS)*, *3*(4), 425-434.

Kanika, Chakraverty, S., Chakraborty, P., & Madan, M. (2022). Effect of different grouping arrangements on students' achievement and experience in collaborative learning environment. *Interactive Learning Environments*, 1-13. https://doi.org/10.1080/10494820.2022.2036764

Kramsch, C. (2000). Second language acquisition, applied linguistics, and the teaching of foreign languages. *The Modern Language Journal*, *84*(3), 311-326. https://doi.org/10.1111/0026-7902.00071

Laal, M. (2013). Positive interdependence in collaborative learning. *Procedia-Social and Behavioral* Sciences, 93, 1433-1437. https://doi.org/10.1016/j.sbspro.2013.10.058

Ladousse, G. P. (1989). *Role play: Resource books for teachers.* Oxford University Press.

Lising, L. (2021). 'Speak English!': Social acceleration and language learning in the workplace. *International Journal of Bilingual Education and Bilingualism*, 1-14. https://doi.org/10.1080/13670050.2021.1955499

Malebese, M. E. L., & Tlali, M. F. (2020). Teaching of English first additional language in rural learning environments: a case for problem-based learning. *International Journal of Inclusive Education, 24*(14), 1540-1551.

McCroskey, J. C., & Richmond, V. P. (1990). Willingness to communicate: Differing cultural perspectives. *Southern Journal of Communication*, *56*(1), 72-77.

Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook*. Sage.

Morris, A. (2015). *A practical introduction to in-depth interviewing*. Sage.

Murphy, M. P. (2022). Evaluating Simultaneous Group Activities Through Self-and Peer-Assessment: Addressing the "Evaluation Challenge" in Active Learning. *Journal of Political Science Education*, *18*(4), 511-522

Nunan, D. (1989). *Designing tasks for the communicative classroom*. Cambridge University Press.

Nur, S., & Butarbutar, R. (2022). Empowering EFL learner's Self-efficacy through Collaborative task-based Instruction: A Critical Review. *VELES: Voices of English Language Education Society, 6*(1), 118-129.

Nur, S., Butarbutar, R., Ardiningtyas, S. Y., & Alimuddin, A. H. (2022). A systematic review on integrating MALL in English language teaching. *ELT Worldwide*, *9*(1), 56-69.

Orfan, S. N. (2020). Afghan EFL students' difficulties and strategies in learning and understanding English idioms. *Cogent Arts & Humanities*, 7(1), https://doi.org/10.1080/23311983.2020.1796228

Richards, J. C. (1990). *The language teaching matrix*. Cambridge University Press.

Rienties, B., Lewis, T., McFarlane, R., Nguyen, Q., & Toetenel, L. (2018). Analytics in online and offline language learning environments: The role of learning design to understand student online engagement. *Computer Assisted Language Learning*, *31*(3), 273-293.

Savaşçı, M. (2014). Why are some students reluctant to use L2 in EFL speaking classes? An action research at tertiary level. *Procedia-Social and Behavioral Sciences*, 116, 2682-2686.

Siqin, T., & Chu, S. K. W. (2021). How students take collective responsibility for productive collaboration: An empirical examination of online discourse. *Interactive Learning Environments*, *29*(7), 1076-1089.

Tellis, W. (1997). Introduction to case study. *The Qualitative Report*, *3*(2), 1-14.

Timpe-Laughlin, V., Sydorenko, T., & Daurio, P. (2022). Using spoken dialogue technology for L2 speaking practice: What do teachers think?. *Computer Assisted Language Learning*, *35*(5-6), 1194-1217.

Tremblay-Wragg, É., Raby, C., Ménard, L., & Plante, I. (2021). The use of diversified teaching strategies by four university teachers: What contribution to their students' learning motivation? *Teaching in Higher Education*, *26*(1), 97-114.

Tsegaye, M. T., Bleser, R. D., & Iribarren, C. (2011). The effect of literacy on oral language processing: Implications for aphasia tests. *Clinical Linguistics & Phonetics*, *25*(6-7), 628-639.

Uztosun, M. S. (2020). The development of a scale for measuring the self-regulated motivation for improving speaking English as a foreign language. *The Language Learning Journal*, *48*(2), 213-225.

Viberg, O., Mavroudi, A., Fernaeus, Y., Bogdan, C., & Laaksolahti, J. (2020). *Reducing free riding: CLASS–a system for collaborative learning assessment.* In Methodologies and Intelligent Systems for Technology Enhanced Learning, 9th International Conference, Workshops (pp. 132-138). Springer International Publishing. https://doi.org/10.1007/978-3-030-23884-1_17

Vygotsky, L. S. (1987). *The collected works of LS Vygotsky: Problems of general psychology, including the volume thinking and speech*. Springer Science & Business Media. https://doi.org/10.1007/978-1-4613-1655-8_7

Yang, N. D. (1998). Exploring a new role for teachers: Promoting learner autonomy. *System*, *26*(1), 127-135.

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Article

Analyzing the success of Hispanic boys in meeting college and career readiness standards in rural Texas high schools

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Abstract

Examined in this investigation were the percentages of Hispanic boys who were college ready or not college ready as a function of the district's rural setting for three consecutive school years (i.e., 2016-2017, 2017-2018, and 2018-2019). Descriptive statistics were calculated for all three rural school district types combined and then separately for the three rural school districts (i.e., Rural Remote, Rural Distant, and Rural Fringe). With respect to this investigation, 41% of Hispanic boys met a College, Career, and Military Readiness indicator in mathematics. All three rural school district types had positive trends or negligent changes over the three consecutive school years for Hispanic boys who met a College, Career, and Military Readiness indicator in mathematics. More than a third, 34.36%, of Hispanic boys from rural distant school districts met a college readiness indicator in mathematics. Similar percentages were present for Hispanic boys in rural remote school districts, 35.74%, and for Hispanic boys in rural fringe school districts, 36.01%. However, approximately two-thirds of Hispanic boys did not meet a college readiness indicator in mathematics in any of the three rural district type settings over three consecutive years. As such, educational leaders are encouraged to expand their efforts in this area, along with evaluating the efficacy of their current strategies.

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Introduction

The United States of America was built on the ideology that all men are created equal and are entitled to due process with all the basic rights afforded under the U.S. Constitution Bill of Rights (1789). Researchers such as Garcia et al. (2020) have voiced their concerns about students in poverty who do not have the same opportunities to enroll in advanced coursework as their peers who do not live in poverty. However, "Nearly one in six of those rural students live below the poverty line…one in nine has changed residence in the previous 12 months" (Showalter et al., 2019, p. 9). As defined by the U. S. Census Bureaus, rural communities are any city, town, or settlement with a population less than 2,500 residents (Cromartie & Bucholtz, 2008), and approximately 7.5 million students attended a public, rural school district in the United States prior to the Covid 19 worldwide pandemic (Showalter et al., 2019). To understand the limitations of rural communities, the National Center for Education Statistics published a report in 2016 that categorized rural school districts based on their geographical distance to a surrounding urban setting. The report is used to help researchers and public

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institutions understand the geographical makeup of educational systems and their stakeholders (Geverdt, 2015). Of importance to this article was that the U. S. Census of 2020 cited that the Hispanic community was the fastest growing community in this country (United States Census, n.d.).

One in every seven American students graduated from school districts labeled as rural. In 2019, the U. S. median of rural students was 95,965 students. For the state of interest in this article, Texas had 693,668 rural students. In comparison, 463,129 students were educated in rural schools within Georgia. In the District Type Glossary of Terms 2017-2018, the Texas Education Agency has defined a rural school district as a school district with a student "enrollment between 300 and the median district enrollment for the state and an enrollment growth rate over the past five years of less than 20 percent" (Texas Education Agency, 2019, "Rural" section).

In 2017, Warne documented the presence of a positive relation between students who took advanced coursework and their ability to pay for course fees. The relation hinted that students enrolled in advanced coursework cannot cover financial costs without assistance from the school. In 2019, Showalter et al. cited that rural schools received less funding when compared to urban or metropolitan schools. Such lack of funding could limit student access to college coursework or to standardized testing due to the financial hardships associated with registration fees or tuition. As noted by Taie and Lewis (2020), students in rural communities were less likely to be proficient on Advanced Placement exams and tend to have reduced access to advanced coursework when compared to students from urban or affluent suburban communities. In addition, highlighted in the report (Showalter et al., 2020) was that the levels of poverty were most prevalent in rural communities in southern states such as Georgia and New Mexico. Though Texas has 14% of children between the ages of 5 and 17 live below the poverty level in rural communities, some communities in South Texas have poverty levels of 39% (Fletcher et al., 2021). Accordingly, Taie and Lewis (2020) established that most schools that offered dual enrollment college programs had approximately 86% participation rates in free or reduced-price lunch programs, and their families were responsible for the expenses associated with a dual enrollment course.

As defined by Conley, college readiness is "the level of preparation a student needs in order to enroll and succeed without remediation—in a credit-bearing general education course at a postsecondary institution that offers a baccalaureate degree…" (2007, p. 5). In addition, the United States Department of Education has argued that a rigorous curriculum has a strong influence on preparing students to be College and Career Ready (Fletcher et al., 2021). Furthermore, Conley determined that college ready students in mathematics possessed a deep and true understanding of mathematics. However, he noted that at least 40% of the graduating high school seniors did not have the "basic concepts, principles, and techniques of algebra" (p. 15). He went further to mention that students with college ready skills in mathematics would be able to use their mathematical skills to find a solution and then explain the solution as it pertained to the context. Students who enrolled in developmental courses because they are not College and Career Ready in mathematics or language arts are less likely to graduate from college due to the additional need for coursework. Students with a bachelor's degree tended to earn at least $60,000 annually and had lower unemployment rates than students without a 4-year college degree (Fletcher et al., 2021).

Across the United States, public pressure on school districts to increase the percent of students who are college ready in mathematics has raised the student demand to access high stakes exams such as the SAT or the ACT. However, high stakes standardized exams such as the SAT or ACT have traditionally yielded lower student success rates (American College Testing, 2019). Due to the low success rates in standardized tests, school districts have ventured to other college ready indicators, such as dual enrollment in mathematics. Noted by Taie and Lewis in 2020, students in rural communities are less likely to have access to advanced coursework or to be able to take national high stakes exams such as the SAT or ACT because of the registration costs or fees associated with such programs. Consequently, Field (2021) contended that access to advanced coursework was not equitable by student groups and state demographics.

High schools with the lowest enrollment in dual credit courses had higher percentages of students of color than high schools with higher percentages of White students (Taylor & Lichtenberger, 2013). They also established that high schools with the lowest enrollment in dual credit courses were high schools with high percentages of students in poverty. In 2013, only 2% of Emergent Bilingual students were enrolled in Advanced Placement Calculus or other advanced mathematics courses in the nation; however, 22% of Grade 12 Hispanic students were college ready in mathematics in 2013 (Bojorquez, 2018). In 2019, 83% of high school students were not able to enroll in at least one dual credit course in the United States (Showalter et al., 2019). Garcia et al. (2020) established that students with little or limited access to advanced coursework, such as dual credit, were likely to need additional remediation in college. They determined that underrepresented students did not have the same opportunities and the same access to advanced coursework while in high school. Gagnon and Mattingly (2016) cited that remote, rural school districts with average poverty rates were 58% less likely to offer advanced coursework in contrast to urban school districts with similar poverty rates that were 97% more likely to offer advanced coursework. The probability for poor and remote rural school districts to offer advanced coursework is less than 49% (Gagnon & Mattingly, 2016).

Kotok (2017) determined that Hispanic students were more likely to be placed in lower-level mathematics courses or receive less rigorous instruction when compared to peers in similar advanced mathematics coursework such as trigonometry. Martinez and Welton (2014) noted that "low-income students of color are rarely placed in high level-courses" (p. 801). As a result, students of color from rural school districts did not have the prerequisite skills for advanced coursework (Renbarger & Long, 2019). A poor curriculum or limited financial resources were also factors in the low enrollment numbers of Hispanic boys in advanced coursework (Fletcher et al., 2021).

Rivera et al. (2019) documented that rural communities tended to have higher percentages of students in poverty with limited access to advanced coursework. They cited that students in rural communities are most likely to be less proficient in mathematics or science at the elementary school level and at the middle school level despite a high community network. Witenko et al. (2017) determined that Hispanic students were less likely to be in a college preparatory program because the students at these schools did not have the same access to advanced coursework as White students. Furthermore, they argued that Hispanic boys were less likely to be assigned to advanced courses in Honors or Advanced Placement. Similarly, Johnson (2019) observed that Emergent Bilingual students participated in less advanced

college level advanced coursework than non-Emergent Bilingual students despite the finding that higher participation in "rigorous academic courses in high school performs better on standardized tests "(p. 461). Hispanic students from rural communities had fewer college opportunities than their peers in urban or suburban schools (Hurtado et al., 2020).

In Texas, the state of interest for this investigation, Hispanic boys and girls represent the largest student group in public education but have the second lowest percent of student enrollment in advanced coursework such as Advanced Placement (Cha, 2015; Renbarger & Long, 2019). Martinez and Welton (2014) reported that only 54% of Hispanic high school students were encouraged to attend a 4-year university instead of a trade school or to join the workforce. Hence, they encouraged additional training for high school guidance staff to help students of color in high level poverty schools in Texas. In addition, teachers in rural Texas communities were less likely to teach the standards in mathematics or prepare students for college and career readiness than were mathematics instructors in urban or suburban schools (Edgerton & Desimone, 2018).

Students who enrolled in a 2-year or a 4-year institution were twice as likely to graduate from a postsecondary school than their fellow peers who had to enroll in developmental courses or who were not College and Career Ready after high school (Fletcher et al., 2021). In 2018, Bojorquez reported that lower percentages of students in rural Texas communities were college ready with the implementation of House Bill 5. In Texas, 694,000 students, or 13.8% of school enrollment, were in rural classrooms (Showalter et al., 2019). House Bill 5 removed the requirement that students graduate with Algebra 2, a prerequisite for College Preparatory Mathematics, Precalculus, or Advanced Placement Statistics. Only 23% of Hispanic students had taken Algebra 2 by Grade 12 compared to 52% of White adolescents. Consequently, 47% of White students were college ready in Grade 12, in contrast to 16% of African Americans or 23% of Hispanic students in Texas (Johnson, 2018).

With respect to Texas, Barnes and Slate (2014) determined that only 44.69% of Hispanic boys were college ready in mathematics in the 2007-2008 school year, with a slight increase to 48.31% in the 2008-2009 school year. In 2015, only 16% of Hispanic students were enrolled in Advanced Placement Calculus in Texas (Bojorquez, 2018). In a more recent school year, 2016-2017, approximately 54% of Hispanic students were determined to be College and Career Ready compared to 73% of their White peers who were determined to be College and Career Ready in Texas (Fletcher et al., 2021). In 2019, 38% of adolescents in Texas were college ready in Mathematics, but only 25% of Hispanic adolescents were college ready in mathematics (American College Testing, 2019).

The National Center for Education Statistics (2019) cited that 39% of Hispanic students had enrolled in postsecondary institutions in contrast to 42% of their White peers or 58% Asian students. Furthermore, more Hispanic girls (44%) were enrolled in postsecondary settings than were Hispanic boys (35%). Of importance is that in Texas, 47% of Hispanic adolescents were enrolled in dual credit courses (Field, 2021) which are cause for concern given the national percentages that are much higher than the low percentages in Texas. The relationship between school district setting and enrollment in advanced mathematics coursework has not yet been explored in the published research literature. As such, the purpose of this article was to ascertain the mathematics performance of Hispanic boys in comparison to the mathematics performance of their peers in small, rural school districts.

Statement of the Problem

In an analysis of the 2011-2012 Civil Rights Data Collection, the 2012 Small Area Income and Poverty Estimates, and the U. S. Census, researchers Gagnon and Mattingly (2016) contended that remote schools were least likely to offer advanced programs to their students. In Texas, 13.6% of students were enrolled in a rural school setting (Showalter et al., 2019). After changes in the Texas accountability system in 2019, school districts were encouraged to increase their number of students ready in college, career, and military readiness to obtain a more favorable letter grade rating for their district and campus (Morath, 2019). Furthermore, recent reports by the College Board and the American College Test, cite that high school students in Texas were less prepared for college mathematics when compared to their peers on the national stage (Fletcher et al., 2021). The problem that was investigated in this article was the extent to which Hispanic boys are meeting and/or not meeting College and Career Readiness in mathematics in a Texas rural educational setting between the 2016-2017, 2017-2018, and the 2018-2019 school years.

Purpose and Significance of the Study

The purpose of this study was to determine the extent to which the rural setting of school districts was related to Hispanic boys meeting and/or not meeting the College and Career Readiness standard in mathematics in Texas for the 2016-2017, 2017-2018, and 2018-2019 school years. Though research literature was available about the college readiness of Hispanic students in mathematics (e.g., American College Testing, 2019; Barnes & Slate, 2014; Lochmiller et al., 2016), no published empirical works could be located on the relationship between school district setting and enrollment in advanced mathematics coursework of Hispanic boys in Texas. As such, the purpose of this article was to ascertain the performance of Hispanic boys in comparison to their peers in small, rural school districts.

The significance of this study was to provide information about the degree to which differences might be present in College and Career Readiness in mathematics with Hispanic boys enrolled in a rural district setting and who may not always receive the same opportunities to advanced coursework as their peers in urban or large school districts. Even though the data were limited to three consecutive years, the findings from this multiyear analysis might contribute to how Hispanic boys are prepared or given access to high level coursework in mathematics in rural school districts, thus preparing them to be college ready in mathematics despite that the U. S. Census of 2020 noted that the Hispanic community was the fastest growing community (United States Census, n.d.). Hence, a low number of Hispanic boys who are College and Career Ready in mathematics their senior year of graduation would affect the monetary bonuses awarded to a school district and a school campus. A possible result of the findings may warrant how opportunities are afforded to students of color, such as Hispanic boys, when compared to boys across urban and suburban Texas or the United States. Furthermore, this situation influences the Texas school district accountability rating and College, Career, and Military bonuses that each district and campus receives for the number of students who are College, Career, and Military ready in mathematics.

Research Questions

In this article, the research questions addressed were: (a) What is the effect of a rural school district setting on the number and percentage of graduating Hispanic boys who met a College,

Career, and Military Readiness indicator in mathematics in the 2016-2017 school year?; (b) What is the effect of a rural school district setting on the number and percentage of graduating Hispanic boys who met a College, Career, and Military Readiness indicator in mathematics in the 2017-2018 school year?; (c) What is the effect of a rural school district setting on the number and percentage of graduating Hispanic boys who met a College, Career, and Military Readiness indicator in mathematics in the 2018-2019 school year?; and (d) What trend is present regarding rural school district setting on the change in the number and percentage of graduating Hispanic boys who met a College, Career, and Military Readiness indicator in mathematics in the 2016-2017, 2017-2018, and 2018-2019 school years?

Method

Research Design

The research design present herein was causal-comparative in nature (Johnson & Christensen, 2020) and was based on three years of historical data. Archival data were downloaded from the Texas Academic Performance Reports. A causal-comparative research design was used to determine the extent to which a relationship might be present between the independent variable and dependent variables. In this study, the dependent variable was the number of Hispanic boys who met and who did not meet the College and Career Readiness in mathematics. The independent variable was the rural setting of school districts.

Participants in this study were Hispanic boys in Grades 9 through 12 who met and who did not meet College and Career Readiness in mathematics. In this study, a rural school district included school districts that are rural fringe school districts, rural, remote school districts, and rural, distant school districts. The advanced coursework data for this study were obtained through the Texas Academic Performance Reports. Data were then imported into the Statistical Package for Social Sciences software program for analysis.

There were 1,247 school districts in Texas and 649 rural school districts, per the National Center for Education Statistics in 2019. Students who met College, Career, and Military Readiness in mathematics scored at least a 3 on Advanced Placement Calculus or Advanced Statistics, a minimum of 350 on the Texas Success Initiative Assessment mathematics, a minimum score of 19 on the ACT mathematics, at least 530 on the SAT math, passed a dual credit course in mathematics, passed an OnRamps mathematics course, or successfully passed a College Preparatory Mathematics course. In the Spring of 2021, the Texas Higher Education Coordinating Board revised the measures and passing criteria for the TSI; the new criteria is referred to as the TSIA 2.0. For the purpose of this article, College and Career Readiness on the TSI were based on data collected prior to the revision of 2021 (Texas Education Agency, 2021).

Participants and Instrumentation

In this article, school districts were defined by the Texas Education Agency as rural remote, rural distant, and rural fringe; consequently, 649 school districts have been categorized within the given parameters and were grouped together as rural school districts. Participants in this study were Hispanic boys in Grades 9 through 12 who met College and Career Readiness in mathematics for 2016-2017, 2017-2018, and 2018-2019. The advanced coursework data for this study were obtained through the Texas Academic Performance Reports. Data were then

imported into the Statistical Package for Social Sciences software program for analysis.

Students who met college, career, and readiness in mathematics scored at least a 3 on Advanced Placement Calculus or Advanced Statistics, a minimum of 350 on the Texas Success Initiative Assessment mathematics, a minimum score of 19 on the ACT mathematics, at least 530 on the SAT mathematics, passed a dual credit course in mathematics, passed an OnRamps mathematics course, or successfully pass a College Preparatory Mathematics course. In January 2021, the Texas Higher Education Coordinating Board reevaluated the Texas Success Initiative program and changed the college readiness criteria for mathematics and English Language Arts. Students must meet a minimum of 950 to be college ready in mathematics.

Results

Initially, descriptive statistics were calculated for all three rural school district types combined and then separately for the three rural school districts. Then, inferential statistical procedures were conducted to determine whether differences were present by school district type. Prior to performing any inferential procedures, checks for normality of data were conducted for the 2016-2017, 2017-2018, and 2018-2019 school years. Regarding the dependent variables, most of the underlying assumptions of an Analysis of Variance (ANOVA) procedure were met (Field, 2009; Slate, 2023). Accordingly, the use of a parametric ANOVA procedure was justified.

Overall Results for Rural School Districts Across the Three School Years

Table 1 contains the descriptive statistics for the percentages of graduating Hispanic boys who met a College, Career, and Military Readiness indicator in mathematics across all three rural school district settings for three school years.

Table 1. Number of rural school districts by type for the 2016-2017, 2017-2018, and 2018-2019 school years

School Year	Rural Remote	Rural Distant	Rural Fringe
2016-2017	200	281	117
2017-2018	203	282	118
2018-2019	199	278	112

Descriptive statistics were initially calculated for all rural school districts combined and then separately for each of the three rural school district types for each of the three school years. In the 2016-2017 school year, out of a total of 1,048 Texas school districts, 699 were defined as rural school districts by the Texas Education Agency. This total consisted of 200 rural, remote school districts, 281 rural, distant school districts, and 117 rural fringe school districts. The average percentage of Hispanic boys who met a College, Career, and Military Readiness indicator in mathematics across all three rural school district settings was 30.11% (*Mdn* = 27.30%).

In the 2017-2018 school year, out of a total of 1,070 Texas school districts, 733 were defined as rural school districts by the Texas Education Agency. This total consisted of 203 rural, remote school districts, 282 rural, distant school districts, and 118 rural fringe school districts. The average percentage of Hispanic boys who met a College, Career, and Military Readiness indicator in mathematics across all three rural school district settings was 35.10% (*Mdn* = 31.6%).

With respect to the 2018-2019 school year, out of a total of 1,078 Texas school districts, 589 were defined as rural school districts by the Texas Education Agency. This total of 589 rural school districts consisted of 199 rural, remote school districts, 278 rural, distant school districts, and 112 rural fringe school districts. The average percentage of Hispanic boys who met a College, Career, and Military Readiness indicator in mathematics across all three rural school district settings was 41.0% (*Mdn* = 37.35%). Table 1 contains the descriptive statistics for the percentages of graduating Hispanic boys who met a College, Career, and Military Readiness indicator in mathematics across all three rural school district settings for three school years.

Results for Research Question One Across the Three School Years

With respect to research question one regarding the extent to which differences were present in the percentage of graduating Hispanic boys who met a College, Career, and Military Readiness indicator in mathematics as a function of the rural school district setting (i.e., Rural Remote, Rural Distant, and Rural Fringe) in the 2016-2017 school year, the parametric ANOVA did not reveal a statistically significant difference, $F(2, 287) = 0.98$, $p = .38$.

Table 2. Descriptive statistics for the percent of Hispanic annual graduates meeting TSI criteria in mathematics by rural school district setting in the 2016-2017 school year

Rural Setting	*n* of school districts	*M*%	*Mdn*%	*SD*%
Rural Remote	62	30.50	26.15	24.05
Rural Distant	127	28.35	26.00	20.12
Rural Fringe	101	32.22	30.40	19.75

As can be seen in Table 2, all three rural school district types had an average percentage of 30.36% of their Hispanic boys who met a College, Career, and Military Readiness indicator in mathematics. Readers should note that the number of rural school districts that had available data was much smaller than the total number of rural school districts. Percentages were available for only 62 rural, remote districts, 127 of the rural, distant school districts, and 101 in the 2016-2017 school year. The reason for these low numbers of rural school districts that had available data is due to Texas Education Agency guidelines. For instance, when less than 5 students are present in the student group, masking rules are applied to protect the identity of the students.

Results for Research Question Two Across the Three School Years

With respect to research question two regarding the extent to which differences were present in the percentage of graduating Hispanic boys who met a College, Career, and Military Readiness indicator in mathematics as a function of a the rural school district setting in the 2017-2018 school year, the parametric ANOVA did not reveal a statistically significant difference, $F(2, 298) = 0.06$, $p = .94$.

Table 3. Descriptive statistics for the percent of Hispanic annual graduates meeting TSI criteria in mathematics by rural school district setting in the 2017-2018 school year

Rural Setting	*n* of School Districts	*M*%	*Mdn*%	*SD*%
Rural Remote	67	35.60	32.10	26.51
Rural Distant	128	35.02	32.70	24.84
Rural Fringe	106	36.10	32.15	20.17

As delineated in Table 3, all three rural school district types had an average percentage of 35.53% of their Hispanic boys who met a College, Career, and Military Readiness indicator in mathematics. Readers should note that the numbers of rural school districts that had available data were much smaller than the total numbers of rural school districts. Percentages were available for only 67 rural, remote districts, 128 of the rural, distant school districts, and 106 in the 2017-2018 school year. The reason for these low numbers of rural school districts that had available data is due to Texas Education Agency guidelines.

Results for Research Question Three Across the Three School Years

With respect to research question three regarding the extent to which differences were present in the percentage of graduating Hispanic boys who met a College, Career, and Military Readiness indicator in mathematics as a function of the rural school district setting in the 2018-2019 school year, the parametric ANOVA did not reveal a statistically significant difference, $F(2, 415) = 0.15$, $p = .86$.

Table 4. Descriptive statistics for the percent of Hispanic annual graduates meeting TSI criteria in mathematics by rural school district setting in the 2018-2019 school year

Rural Setting	*n* of School Districts	*M*%	*Mdn*%	*SD*%
Rural Remote	130	41.11	37.50	23.82
Rural Distant	207	39.70	36.40	23.22
Rural Fringe	81	39.70	30.80	27.10

As revealed in Table 4, all three rural school district types had an average percentage of 40.14% of their Hispanic boys who met a College, Career, and Military Readiness indicator in mathematics. Readers should again note that the numbers of rural school districts that had available data were much smaller than the total numbers of rural school districts. Percentages were available for only 130 rural remote districts, 207 of the rural distant school districts, and 81 in the 2018-2019 school year.

Results for Research Question Four Across the Three School Years

Regarding research question four about the presence of trends, results were consistent across the three school years. The percent of Hispanic boys who met a college readiness indicator in mathematics and graduated from rural distant school districts increased from 30.5% in the 2016-2017 to 35.6% in the 2017-2018 school years to 41.11% in the 2018-2019 school years. As such, a positive trend was observed in all three school years; however, the greatest increase, 10.61%, was present between the 2016-2017 and 2017-2018 school years. Depicted in Figure 1 are these percentages across the three school years.

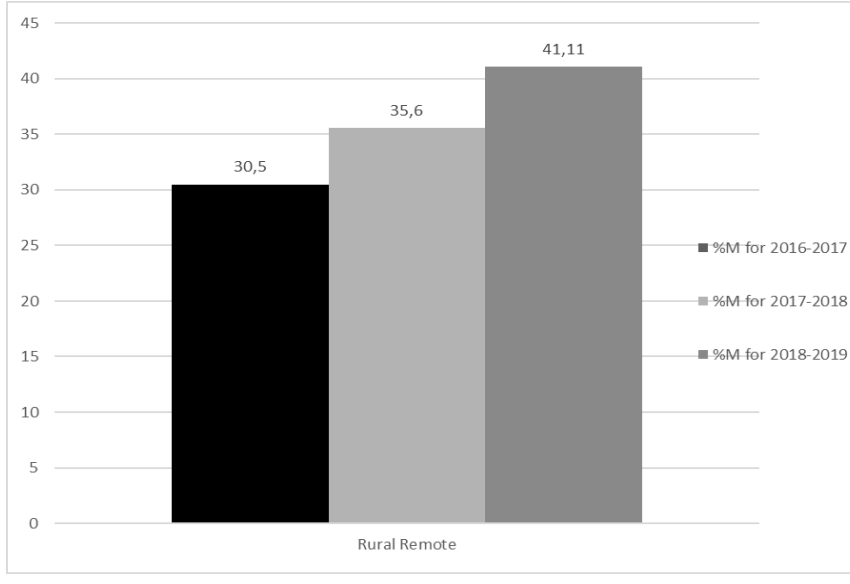

Figure 1. The average percentage of Hispanic annual graduate boys meeting TSI criteria in mathematics for rural remote school districts across three school years

With respect to rural fringe school districts, the average percentage increased from 3.88% in the 2016-2017 and 2017-2018 school years to 7.48% throughout the 2016-2017 and 2018-2019 school years. A positive trend was observed for rural fringe school districts in the three school years; however, the greatest increase, 3.88%, was present between the 2016-2017 and 2017-2018 school years. Percentages across the three school years are illustrated in Figure 2.

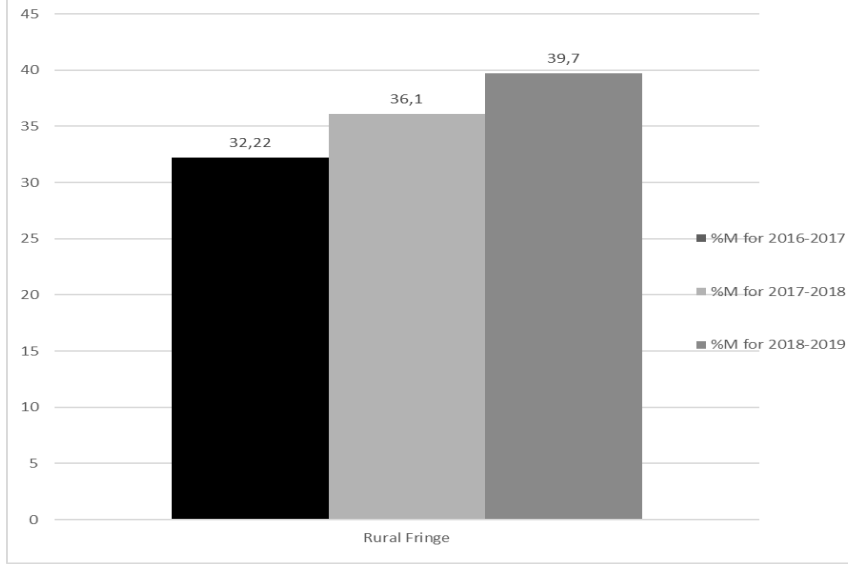

Figure 2. The average percentage of Hispanic annual graduate boys meeting TSI criteria in mathematics for rural fringe school districts across three school years

In contrast to the data of rural remote school districts where 35.74% of Hispanic boys, and 36.00% Hispanic boys from rural fringe school districts, only 34.36% of Hispanic boys from rural distant school districts met a college readiness indicator in mathematics. For the rural distant school districts, the percent of Hispanic boys who graduated from rural distant school districts and met a college readiness indicator in mathematics modeled positive trends for all three consecutive years. The percentage increased 6.67% in the 2016-2017 and 2017-2018 school years and then increased by 11.35% over the 2016-2017 and 2018-2019 school years. Represented in Figure 3 are these percentages across the three school years.

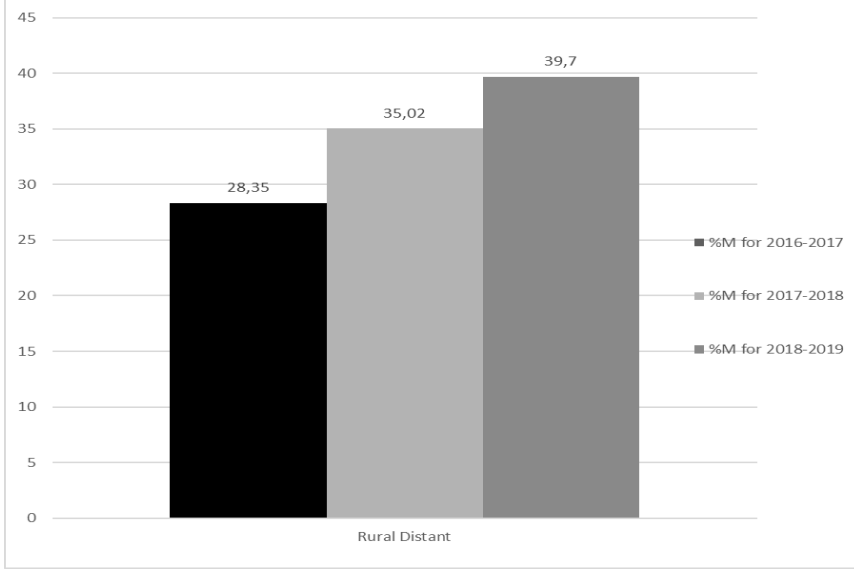

Figure 3. The average percentage of Hispanic annual graduate boys meeting TSI criteria in mathematics for rural distant school districts across three school years

With respect to the fourth research question, positive trends were observed during all three school years. The largest positive change in the average percentage was present with Hispanic boys meeting college readiness in mathematics from rural distant school districts. The average percentage of Hispanic boys who met a college readiness indicator in mathematics and graduated from rural distant school districts increased from 6.67% in the 2016-2017 and 2017-2018 school years to 11.35% increase over the 2016-2017 and 2018-2019 school years. Represented in Table 5 are these percentages across the three school years.

Table 5. Descriptive statistics for average change in percent of Hispanic annual graduates meeting TSI criteria in mathematics by rural setting over three consecutive years

Rural Setting	Change in Mean 2016-2018	Change in Mean 2017-2019	Change in Mean 2016-2019
Rural Remote	5.10	5.51	10.61
Rural Distant	6.67	4.20	11.35
Rural Fringe	3.88	3.60	7.48

Discussion

Descriptive statistics were calculated for all rural school districts combined. Represented in Figure 4 are these percentages across the three school years. Then descriptive statistics were calculated separately for each of the three rural school district types for each of the three school years. As depicted in Figure 5, a 2.79% difference was observed in the average percentage of Hispanic boys who had graduated from rural fringe school districts compared to the percentage of Hispanic graduates from rural distant school districts in the 2016-2017 school year. However, in the 2018-2019 school year, a difference of 3.87% was presented between the percent of annual graduates of Hispanic boys who met a college readiness indicator in rural fringe school districts compared to the percentage of annual graduates of Hispanic boys from rural distant school districts. Consequently, the percent of Hispanic graduates who met a college readiness indicator in mathematics increased between all three rural school districts across the three consecutive years (i.e., 30.11% in 2016-2017 increase to 41.00% in the 2018-2019 school year). Represented in Figure 5 are these percentages across each school year by rural school district type.

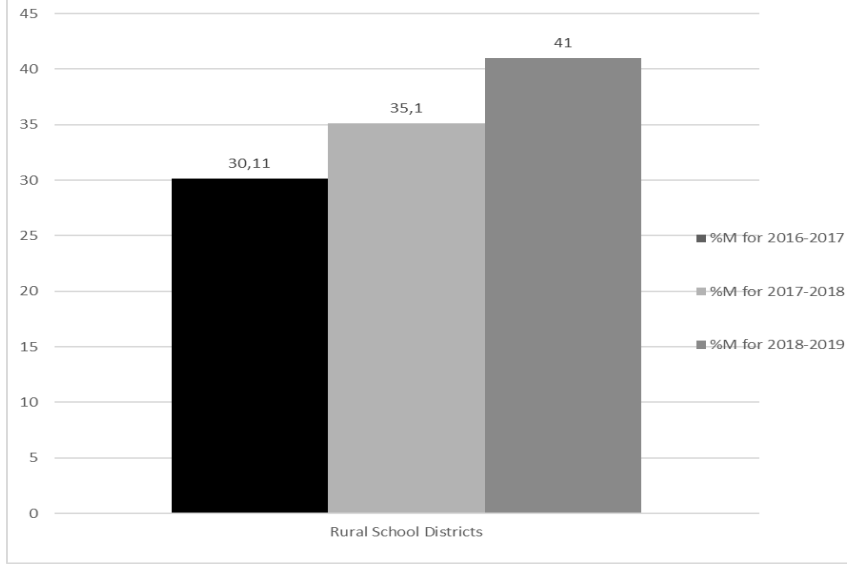

Figure 4. The average percentage of Hispanic annual graduate boys meeting TSI criteria in mathematics by rural school district setting across three school years

As noted by Showalter et al. (2019), students who attend rural school settings have limited access to standardized testing or college coursework. Taie and Lewis (2020) also reported that students in rural communities were less likely to be proficient on college level standardized exams and advanced coursework when compared to students from urban or affluent, suburban communities. Positive relationships have been documented between the ability to pay for course fees and the numbers of students who took advanced coursework (Warne, 2017). Fletcher et al. (2021) noted some communities in South Texas had poverty levels of 39%.

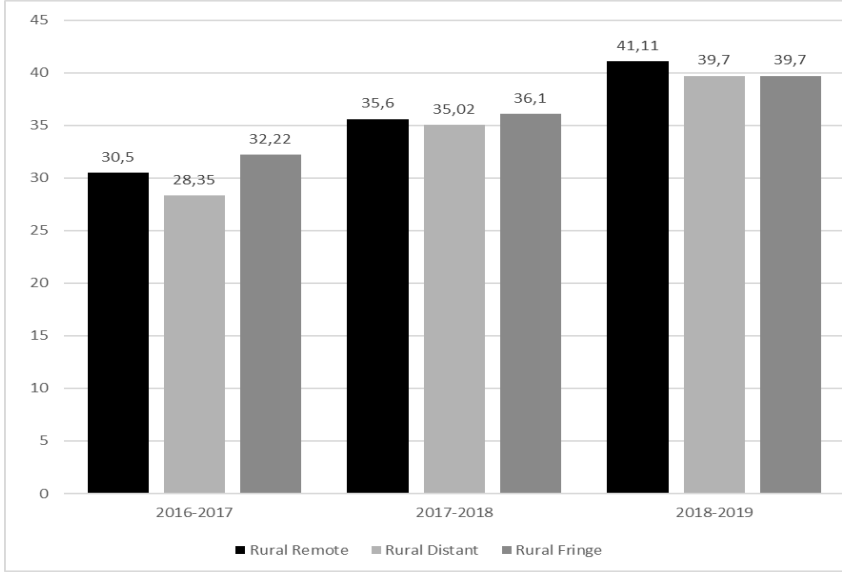

Figure 5. The average percentage of Hispanic annual graduate boys meeting TSI criteria in mathematics by rural setting over three consecutive years

As cited by the U. S. Census of 2020, the Hispanic community was the fastest growing community in this country (United States Census, n.d.). With respect to Texas Hispanic boys graduating between 2016 and 2019, all three rural school districts had steady average percentage increases in meeting college readiness in mathematics. Bojorquez (2018) noted that Hispanic students were less college ready in mathematics after the passing of House Bill 5. Collaborated in this statewide investigation, 59% of Hispanic boys had not met a college readiness indicator in mathematics when they graduated from a Texas rural high school in the 2018-2019 school year.

Implications for Policy and for Practice

Implications for policy and practice can be supported by this multiyear, statewide investigation. Considering that Hispanics are the largest community in the United States, the low percentages of Hispanic boys and trends established in this investigation between the three rural school settings are concerns for Texas school and district administrators. Low percentages of Hispanic boys meeting college readiness indicators in mathematics will amount to low or no College, Career, and Military bonuses and a low accountability rating for the campus and district. The findings can be used to drive strategic awareness of the district's accountability. As such, school and district leaders need to be accountable for students' college readiness in mathematics. As defined earlier, college readiness in mathematics can be obtained by earning at least 350 on the TSI mathematics, 520 on the SAT mathematics, or earning a college credit in college math.

The low percentages of Hispanic boys meeting a mathematics indicator can help drive changes in policy and resources that will benefit Hispanic students or other at-risk students in a rural school setting in Texas. However, the positive trend for all three rural school districts does warrant further review of the data and setting by region and financial resources. Thus, administrators should review the data for rural school districts and explore systems to meet

the needs of Hispanic boys not meeting college readiness in mathematics. The data should be used to provide awareness sessions to stakeholders like the community, students, and campus staff on ways to meet the indicators in mathematics. Because Hispanic boys are 50% of the fastest growing population in Texas, researchers need to address the low percentage of Hispanic boys in rural school districts that are not meeting college readiness in mathematics.

Recommendations for Future Research

Because this investigation is limited to three consecutive years of data in Texas, future researchers should analyze data from school years after the COVID-19 pandemic to compare results from the three school years, particularly concerning the effects on achievement and college readiness in mathematics of Hispanic boys in rural school districts. Hence, research studies are warranted to identify solutions for the achievement and performance gaps between Hispanic boys, girls, or at-risk students. Then, researchers are encouraged to study the percentage of Hispanic boys in English Language Arts for patterns in the same settings as this investigation.

Also examined in this study were performance and statistical investigations to examine rural school settings, but researchers need to examine student performance data from other states to identify achievement gaps in other states or at the national level for college readiness in mathematics. Then, they should compare the same sample for college readiness in English Language Arts. Furthermore, researchers need to focus on districts to ascertain whether relationships are present between the low number of Hispanic students in certain regions of the state i.e., Gulf Coast, Rio Grande, Central, Panhandle, West Texas, and East Texas. Finally, the focus of this study was on the school district setting with respect to Hispanic boys meeting a college readiness indicator in mathematics. Future researchers should consider investigating performance data based on gender, other racial/ethnic groups, and other identified subpopulations. Researchers should examine the performance of boys and girls on state-mandated exams and determine whether similar relationships are present to indicators in mathematics or English Language Arts. Then, they should review the data for trends or gaps in performance based on gender or a school district's setting. Finally, researchers should also examine performance data on other subgroups in Texas and other states. In addition, researchers should examine college readiness indicators for other boys such as students in poverty, students who are in special education programs, and Emergent Bilingual students.

Conclusion

In this multiyear investigation, the percentage of Hispanic boys meeting a college readiness in mathematics was compared by the rural setting of school districts. Descriptive statistics were calculated for the percentages of Hispanic boys who met a mathematics college indicator for rural, remote school districts, rural, distant school districts, and rural fringe school districts in three consecutive school years (i.e., 2016-2017, 2017-2018, and 2018-2019). A high percentage, over half, of Hispanic boys failed to meet the College, Career, and Military Readiness in mathematics. Inequities in or access to a quality high school instructional program (Fletcher et al., 2021) in rural school districts could be argued to be causes for low percentages or discrepancies in the low percentage of Hispanic boys meeting a college readiness indicator in mathematics.

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References

American College Testing. (2019). *The condition of college & career readiness 2019.* Retrieved July 11, 2022, from https://www.act.org/content/dam/act/unsecured/documents/National-CCCR-2019.pdf

Barnes, W., & Slate, J. R. (2014). College-readiness rates in Texas: A statewide, multiyear study of ethnic differences. *Education and Urban Society, 46*(1), 59-87. https://doi.org/10.1177/00131245114237

Bojorquez, H, (2018). Rural districts take a 24 percent hit in Algebra II enrollment. *Intercultural Development Research Association*, *45*(5), 3-4. https://files.eric.ed.gov/fulltext/ED591756.pdf

Cha, S. (2015). Exploring disparities in taking high level math courses in public high schools. *KEDI Journal of Educational Policy*, *12*(1), 3-17. http://eng.kedi.re.kr/

Conley, D. T. (2007). *Refining college readiness. Educational policy improvement Center*. Retrieved June 5, 2022, from https://files.eric.ed.gov/fulltext/ED539251.pdf

Cromartie, J., & Bucholtz, S. (2008). *Defining the "Rural" in rural America.* US Department of Agriculture. Retrieved August 29, 2022, from https://www.ers.usda.gov/amber-waves/2008/june/defining-the-rural-in-rural-america/

Edgerton, A. K., & Desimone, L. M. (2018). Teacher implementation of College- and Career-Readiness Standards: Links among policy, instruction, challenges, and resources. *AERA Open*, *4*(4). https://doi.org/10.1177/2332858418806863

Field, A. (2009). *Discovering statistics using SPSS* (3rd ed.). Sage.

Field, K. (2021). The rise of dual credit. *Higher Education, 21*(1). https://www.educationnext.org/rise-dual-credit-more-students-take-college-classes-high-school-degree-attainment-rigor/

Fletcher, C., Cornett, A., & Webster, J. (2021). *State of Student Aid and Higher Education in Texas*. https://files.eric.ed.gov/fulltext/ED613370.pdf

Gagnon, D. J., & Mattingly, M. J. (2016). Advanced Placement and rural schools: Access, success, and exploring alternatives. *Journal of Advanced Academics*, *27*(4), 266-284. https://doi.org/10.1177/1932202X16656390

Garcia, H. A., Eicke, D., McNaughtan, J., & Harwood, Y. (2020). Understanding dual credit programs: Perspectives from faculty, staff, and administrators. *Community College Journal of Research and Practice*, *44*(8), 584-594. https://doi.org/10.1080/10668926.2019.1626301

Geverdt, D. (2015). *Education Demographic and Geographic Estimates Program (EDGE): Locale Boundaries User's Manual.* U.S. Department of Education. Retrieved July 14, 2022, from http://nces.ed.gov/pubsearch

Hurtado, S., Ramos, H. V., Perez, E., & Lopez-Salgado, X. (2020). Latinx student assets, college readiness, and access: Are we making progress? *Education Sciences*, *10*(4). https://link.gale.com/apps/doc/A630408736/AONE?u=anon~70904613&sid=googleScholar&xid=ab4544ef

Johnson, A. (2019). A matter of time: Variations in high school course-taking by years-as-EL subgroup. *Educational Evaluation and Policy Analysis*, *41*(4), 461-482. https://doi.org/10.3102/0162373719867087

Johnson, P. N. (2018). Getting it just right! Rigor and collömbçege prep for all. *Intercultural Development Research Association*, *45*(5), 1-2. https://files.eric.ed.gov/fulltext/ED591756.pdf

Johnson, R. B., & Christensen, L. (2020). *Educational research: Quantitative, qualitative, and mixed approaches* (7th ed.). Sage.

Kotok, S. (2017). Unfulfilled potential: High-achieving minority students and the high school achievement gap in math. *The High School Journal*, *100*(3), 183-202. doi:10.1353/hsj.2017.0007

Lochmiller, C. R., Sugimoto, T. J., Muller, P. A., & Williamson, S. E. (2016). *Dual enrollment courses in Kentucky: High school students' participation and completion rates.* Retrieved June 1, 2022, from https://ies.ed.gov/ncee/rel/regions/appalachia/pdf/REL_2016137.pdf

Martinez, M. A., & Welton, A. D. (2014). Examining college opportunity structures for students of color at high- "Minority," high-poverty secondary schools in Texas. *Journal of School Leadership*, *24*(5), 800-841. https://doi.org/10.1177/105268461402400501

Morath, M. (2019). *House Bill 3 Implementation: CCMR outcome bonus allowable expenses.* Texas Education Agency. Retrieved July 10, 2022, from https://tea.texas.gov/sites/default/files/House-Bill-3-HB-3-Implementation-CCMR-Outcomes-Bonus-Allowable-Expenses.pdf

National Center for Education Statistics. (2019). *Indicator 19: College participation rates*. Retrieved August 15, 2022, from https://nces.ed.gov/programs/raceindicators/indicator_rea.asp

Renbarger, R., & Long, K. (2019). Interventions for postsecondary success for low-income and high potential students: A systemic review. *Journal of Advancement Academics*, *30*(2), 178-202. https://doi.org/10.1177%2F1932202X19828744

Rivera, S., Knack, J. M., Kavanagh, K., Thomas, J., Small, M. M., & Ramsdell, M. (2019). Building a STEM mentoring program in an economically disadvantaged rural community. *Journal of Educational Research and Practice*, *9*(1), 413-422. https://files.eric.ed.gov/fulltext/EJ1278133.pdf

Showalter, D., Hartman, S. I., Johnson, J., & Klein, B. (2019). *Why rural matters 2018-2019.* Rural School and Community Trust. https://files.eric.ed.gov/fulltext/ED604580.pdf

Slate, J. R. (2023). *Communicating your statistical findings in a formal and scholarly way: A guide for graduate students, faculty, and educational leaders.* ICPEL Publications. International Council of Professors of Educational Leadership. https://www.lulu.com/shop/john-slate/communicating-your-statistical-findings-in-a-formal-and-scholarly-way-a-guide-for-graduate-students-faculty-and-educational/paperback/product-vprd8v.html

Taie, S., & Lewis, L. (2020). *Dual or concurrent enrollment in public schools in the United States.* National Center for Education Statistics. Retrieved July 10, 2022, from https://nces.ed.gov/pubs2020/2020125.pdf

Taylor, J., & Lichtenberger, E. (2013). Who has access to dual credit in Illinois? Examining high school characteristics and dual credit participation rates. *Illinois Education Research Council, 4*, 1-20. https://files.eric.ed.gov/fulltext/ED555454.pdf

Texas Education Agency. (2019). *District Type Glossary of Terms*, 2017-2018. Retrieved June 1, 2022, from https://tea.texas.gov/reports-and-data/school-data/district-type-data-search/district-type-glossary-of-terms-2017-18#teadist

Texas Education Agency. (2021). *The TSIA (Texas Success Initiative Assessment)*. https://tea.texas.gov/academics/college-career-and-military-prep/the-tsia-texas-success-initiative-assessment

U. S. Constitution. (1789). *Bill of rights.* Retrieved July 7, 2022, from https://www.senate.gov/about/origins-foundations/senate-and-constitution/constitution.htm

United States Census. (n.d.). *2020 Census*. Retrieved July 3, 2022, from https://www.census.gov/programs-surveys/decennial-census/decade/2020/2020-census-main.html

Warne, R. (2017). Research on the academic benefits of the Advanced Placement program: Taking stock and looking forward. *Sage, 7*(1), 1-16. https://doi.org/10.1177/2158244016682996

Witenko, V., Mireles-Rios, R., & Rios, V. (2017). Networks of encouragement: Who's encouraging Latina/o students and White students to enroll in Honors and Advanced-Placement (AP) Courses? *Journal of Latinos and Education, 16*(3), 176-191. https://www.tandfonline.com/doi/full/10.1080/15348431.2016.1229612

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Article

"Racism is alive and well": (Re)visiting the University of Florida's Black Student Union's history through composite counterstorytelling

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Abstract

This study centers on the origins of the Black Student Union (BSU) during the late 1960s and early 1970s at the University of Florida (UF) presented as a speculative fiction composite counterstory. The story presented in this manuscript serves as a cautionary tale of what the future of higher education will be, if white supremacy persists, even when white people will no longer represent a numerical majority. Though the findings utilized in this piece are decades old, we offer the current climate of public institutions and DEI initiatives to emphasize the importance of counterstories that underscore the resistance and activism that challenges oppressive systems and birthed such organizations as Black Student Unions, which are now increasingly under threat of elimination. Utilizing BlackCrit, we look backward to explore the permanence of anti-Black racism in our future. We invoke the genre of speculative fiction to give form to our findings - a fictional short story that posits a possible future world that runs counter to expectations for a post-racial future on college campuses and in the United States more broadly. Through a deeper understanding of how Black students drew upon their social networks during the Long Black Student Movement era, we aim to spark dialogue about the future of Black student advocacy at predominantly white American colleges and universities.

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Introduction

Despite the 1954 Brown v. Board of Education decision, the desegregation of higher education was a process, not an event (Rogers, 2012). The University of Florida did not admit its first Black undergraduate students until 1962. Once admitted, Black students struggled to find a sense of belonging, describing their status as "there and ignored" (Wallenstein, 2008, p. 44). Black Student Unions rose out of this sentiment, demanding that "American higher education make itself more hospitable and relevant to Black persons and ideas" (Rogers, 2009, p. 31). This study centers on the origins of the Black Student Union (BSU) at the University of Florida (UF). More than fifty-five years after its founding in 1968, the history of BSU at UF remains understudied. Far more is known about April 15, 1971, known as Black Thursday, which resulted from ignored demands by the Black Student Union to rectify Black students' lack of

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supportive resources and exclusion "from meaningful social and cultural endeavors on this campus" (History, n.d.). The subsequent campus unrest culminated in students occupying the president's office, leading to the expulsion and withdrawal of more than 100 Black students from the university.

Like their counterparts across the country (Rogers, 2006; 2012, Thompson, 2004), this activism impacted UF materially and physically - changing its landscape with the founding of the Institute of Black Culture in 1971 (Institute of Black Culture, n.d.). Black Thursday is undoubtedly a critical moment in UF history; however, the history of the Black Student Union remains inadequately documented. Consistent with BlackCrit, this manuscript challenges the ahistoricism present in the current understanding of the University of Florida's Black Student Union foundation by placing Black Thursday within its proper context as a breakthrough in the protracted and cyclical battle for belonging and inclusion at the University of Florida (Dumas & ross, 2016).

This article is being published amidst increasing legislation that bans or seeks to eliminate diversity, equity and inclusion (DEI) work and programming within public institutions nationwide, including the University of Florida. Earlier this year, the Univeristy of Florida eliminated all DEI spending, positions and appointments, which only accounted for less than 1% of the University's annual budget for the 2022-2023 school year (Thomas, 2024). Organizations like the National Association for the Advancement of Colored People (NAACP) have condemned such actions and NAACP President and CEO Derrick Johnson cautioned that "Florida's rampant anti-Black policies are a direct threat to the advancement of our youg people and their ability to compete in a global economy" (AP, 2024). Moreover, The Coalition of Concerned Black Alumni, a group comprised of Black UF graduates, have demanded that the University utilize private funding to support DEI initiaves that state legislation has banned (Rayford, 2024). Though the findings utilized in this piece are decades old, we offer the current climate of public institutions and DEI initiatives, to emphasize the importance of counterstories that underscore the resistance and activism that challenges oppressive systems and birthed such organizations as Black Student Unions, which are now increasingly under threat of elimination.

Black Student Unions and the Long Black Student Movement

Black student on-campus activism during the 1960s and 1970s is separate but related to the Black student off-campus activism as a part of the contemporary civil rights period (1954-1965) (Rogers, 2012). Rogers (2012) argues that "this late 1960s Black power campus struggle represented a profound ideological, tactical, and spatial shift from early 1960s off-campus civil rights student confrontations" (p. 3). Although these moments of Black student mobilization may have represented "ideological, tactical, and spatial" changes, they are "separate but interlocking tussles in the Long Black Student Movement (LBSM) from 1919-1972" (Rogers, 2012, p. 3). The 1960s were not the beginning of Black student mobilization. Instead, the LBSM extends this activism to the 1920s (Rogers, 2012). Early examples of Black student activism include participation in "the antebellum abolitionist and colonization movements" (Rogers, 2012, p. 30).

Black Student Unions endeavored to make campuses habitable for Black students in higher education by challenging systemic racism and fighting for standardized inclusion (Rogers, 2012; Rook, 2006). Students critiqued institutions for "perpetuat[ing] Black oppression

through its admissions policies, its 'white-oriented' curriculum, and its overwhelmingly white teaching staff" (Rooks, 2006, p. 18). Black students did not work in isolation from others; however, Rogers (2012) argued for the need to recognize the "Black Campus Movement (BCM)" as distinct; therefore, this paper focuses on the experiences of Black students. Numerous studies have explored San Francisco State College's Black Student Union (San Fran BSU) (Rogers, 2009; 2012; Rooks, 2004; Thompson, 2004), one of the earliest Black student-led organizations on American college campuses and a group whose activist work led to the introduction of Black studies on their campus (Rogers, 2009). Thus, an opportunity exists to expand our understanding of the diverse histories within the LBSM and how it shaped universities. Moreover, while colleges and universities may currently contend with Black student enrollment and achievement, "few understand the strengths of the communities from which these students come" (Thompson, 2004, p. 434). Through a deeper understanding of how Black students drew upon their social networks during the Long Black Student Movement era, we aim to spark dialogue about the future of Black student advocacy at predominantly white American colleges and universities (C.J. Thompson, 2004).

This article centers on the formation of the Black Student Union at UF during the late 1960s and early 1970s. We begin by outlining the four framing ideas of BlackCrit Theory (Coles & Powell, 2018), the conceptual framework for our study, and then describe our historical research methods and how we present our findings. What follows is a narrative that blends historical data with speculative fiction - which we describe as a speculative fiction composite counterstory (SFCC).

Conceptual Framework

BlackCrit

We employ BlackCrit as the conceptual framework for this study. BlackCrit underscores how Black people are marginalized, dehumanized, and disdained globally. Drawn from Afro-pessimism and critical race theory (CRT), Dumas and ross (2016) put forth BlackCrit theory to center "the endemic structural, cultural and psychological manifestations of the dehumanization of Black people"' (Tillis, 2018, p. 313). Though CRT is often used to make sense of racism experienced by Black people, it is not specifically a "Black theorization of race" (Dumas & ross, 2016, p. 416). BlackCrit allows research to make visible the "structural embeddedness of anti-Blackness" in society (Coles, 2020, p. 7) and move "beyond a general race critique" (Bryan, 2020, p. 12). Furthermore, Coles & Powell (2019) outlined four framing ideas of BlackCrit, including (1) "anti-Blackness as endemic," (2) "Blackness exists in tension with neoliberal-multicultural imagination," (3) the necessity for BlackCrit to "create space for Black liberatory fantasy," and (4) resist history that supports dangerous majoritarian stories" (Coles & Powell, 2019). This paper draws on the framing ideas of BlackCrit while building upon three CRT tenets; "racism as normal," "voice or counterstory," and "interest convergence" (Ladson-Billings, 2016).

This project focuses on the framing ideas of BlackCrit and CRT tenets most pertinent to this work. While CRT in education began by drawing upon examples from Black people, CRT is not solely about confronting anti-blackness (Dumas & ross, 2016). BlackCrit draws from CRT; however, it differs as its framing ideas are specific to Blackness. For instance, whereas CRT posits that racism is endemic to American society, BlackCrit stresses the permanence of anti-

Blackness. Both the concepts of interest convergence and the tension between BlackCrit and neoliberal multiculturalism question laws and policy changes promoted as wholly beneficial to people of color. In order to challenge majoritarian stories about Black students and Black student groups on US campuses, we present a counterstory of UF's Black Student Union. Counterstories center the experiences of people of color, which directly relates to the BlackCrit critique of majoritarian stories. BlackCrit explicitly makes space for Black liberatory fantasy, and though the outcome of the story presented by our data is not inherently liberatory, we see the act of creating it as liberatory. We, as Black scholars, are creating work that we hope pushes the bounds of what "counts" as research.

Positionality

As authors' committed to work that furthers racial justice, we share our positionalities as we believe it is critical to share our relation to this work and the ways that our identities makes us both insiders-outsiders to this work. Author A is a Black American cisgender heterosexual man from the American South. Author A was a member of Black Student Union at his undergraduate alma mater, Auburn University. He also served as the President of the university's chapter of the National Association for the Advancement of Colored People (NAACP). Author B is a Black Canadian cisgender heterosexual woman of Jamaican parentage. Author B was active in the formation of her high school's Black Student Union in Brampton, Ontario, Canada and several years later would serve as the President for the Black Graduate Student Organization (BGSO) at the University of Florida while she pursued her doctoral studies. As former active members of organizations that support Black students at various institutional levels, we can be seen as cultural insiders as we have been involved with similar organizations as UF's BSU but were not active members of the organization at any point. As higher-education professionals, we want to emphasize our support of student organizations that center and serve the specific needs of marginzalized students, including Black students. Such organizations have been instrumental to our own success as people, students and professionals. Author A credits his experience in Auburn University's BSU with advancing his understanding of the ways in which policy exacerbates disparities between Predominantly White Institutions (PWIs) and Historically Black Colleges and Universities (HBCUs). Additionally, faced with the ever-declining Black enrollment at Auburn University during his undergraduate career, Author A found rejuvenating and resilience-building community through his engagement with the Black Student Union. Author B recalls how the friends she made through UF's BGSO were instrumental in navigating her doctoral studies as a first-generation College student as they shared their experiences and resources. We challenge all attacks on institutional work that supports diversity, equity, and, inclusion, which we also see as threats to student organizations, like Black student unions, which have been and continue to be instrumental in student activism and greater change in society.

Method

Speculative Fiction Composite Counterstory

This manuscript draws on primary and secondary sources chronicling the history of BSU at UF to present a speculative fiction composite counterstory (Carrington, 2016; Cook & Dixson, 2012; Solórzano & Yosso, 2016). This SFCC's primary sources consist of newspaper articles from the student-led paper, the Independent Florida Alligator, and university documents related to the inception of the BSU at UF (Cook & Dixson, 2012). We gathered the historical

data used in this study during visits to the University of Florida's Department of Special & Area Collections. Original issues of The Independent Florida Alligator, the University of Florida's student-run newspaper, are kept in glue-bound tomes. At the time of this research, the entire catalog of the Alligator was not available electronically. Thus, we reviewed each newspaper issue from April 1968 through December 1972, identifying articles related to the Black Student Union, campus racial tension, and general campus unrest. Ultimately, we sought to uncover how the historical narrative of this period unfolded in the public record by examining artifacts that provided context for the early years of the BSU. We also utilized secondary sources about the LBSM across the US to supplement the primary sources and provide an understanding of the broader social context and how events taking place at the University of Florida were simultaneously unique in their particularities but connected to student movements across the country.

We invoke the genre of speculative fiction to give form to our findings - a fictional short story that posits a possible future world that runs counter to expectations for a post-racial future on college campuses and in the United States more broadly (Carrington, 2016). We position the reader in a future where virtual reality newspaper archives reconstruct reported events around the reader, much like current-day virtual reality. Many virtual reality scenes are taken directly from the newspapers, with minor details added for effect. We leverage direct quotes from newspaper articles and place them in a context faithful to our understanding of the reported events. All characters in the scenes of the virtual reality newspaper archives are historical figures, and care was taken not to embellish in misrepresentative ways.

As our story envisions a future that is technologically driven, we connect this work to Afrofuturism methodologies though, we acknowledge our pessimistic views of the future. Afrofuturism is defined as "an intersection of imagination, technology, the future and liberation" (Womack, 2013, p. 9). As such, our use of speculative fiction draws on the imaginary, technology, future and liberation. Moreover, we see liberation in our methodological approach including the presentation of the data as a speculative fiction composite counterstory, rather than evident in the conclusion of the story itself. Instead, the story we present demonstrates an Afropessimistic view of the future. Afropessimism and Afrofuturism are very much connected as they "represent different forms of imagination within the afterlife of slavery" (Hart, 2021, p. 197).

We present the data on UF's Black Student Union as an SFCC, allowing us to "create space for Black liberatory fantasy" (Dumas & ross, 2015, p. 431). Unlike purely fictional stories, we use data to develop a story "grounded in real life" (Solórzano & Yosso, 2016, p. 136) but set in an imagined future. Though there are several functions of counterstories, this SFCC serves to "challenge the perceived wisdom of those at society's center by providing a context to understand and transform established belief systems" (Solórzano & Yosso, 2016, p. 136). Finally, composite counterstories make research accessible beyond academic audiences. As such, SFCC serves as both our findings and a "pedagogical teaching and learning [tool] that use[s] story to expand our understanding of reality and possibility" (Cook & Dixson, 2013, p. 186). We submit that the nonfictional stories of marginalized students from another era embedded within a fictional (albeit plausible) future may be leveraged to help readers apprehend the realities of racism's resilience across time, which is a fundamental tenet of both BlackCrit and CRT.

Findings

Findings as Storytelling

Counterstories, counternarratives and storytelling have been employed by critical race theorists to "make visible the racial biases deeply embedded in the unstated norms of American law and culture" (Brown & Jackson, 2022, p. 18). One of CRT's foundational education scholars, Gloria Ladson-Billings (2022) cautions that counterstorytelling is not merely to vent about racial struggles but to underscore racial injustice writ large. Consequently, we present our research findings as a counterstory in the spirit of Derrick Bell's (1992) science fiction story "Space Traders." Stories are powerful tools for destroying mindset, which Delgado (1989) defines as "the bundle of presuppositions, received wisdoms, and shared understandings against a background of which legal and political discourse takes place" (p. 2413). We employ the context of the founding of the Black Student Union at the University of Florida to imagine, through a lens of racial realism (Bell, 2005), how racism will continue to bear down on Blacks even when non-Hispanic whites are no longer the numerical majority. Furthermore, this counterstory reveals how Black students at UF struggled against racism for many years before Black Thursday. The following section tells the story of Miles, and Ella, two traditionally-aged students attending the University of Florida in 2071. Notably, the story takes place several years after the U.S. Census Bureau's prediction that by 2060 non-Hispanic whites will no longer be the majority in the United States. Miles and Ella follow a similar path to our path as researchers, yet serve as a proxy for the reader - encountering a history that challenges and expands the popular narrative of the founding of the Black Student Union at the University of Florida.

Toward a White Student Union

Miles desperately needed to find someone to serve as the advisor for his brand-new student organization. Seventy-eight students had already declared membership within the organization, exceeding the number of required members by fifty students. The founding of the University of Florida's White Student Union would be a critical moment in the institution's history as long as people continued to catch the vision. As a cisgender white man, Miles knew that the organization would receive less backlash if the advisor was a person of color. He hoped that having a person of color as an advisor would convince others that the new student group was nothing like white nationalist hate groups from back in the day. Instead, the White Student Union would preserve the history and culture of white students - an underrepresented minority at the university.

When he was admitted in 2069, Miles was ecstatic to be attending the number one ranked institution in the US News & World Report. However, when he arrived, he quickly realized that only 20% of the students were white. Alternatively, Black and multiracial students comprised 40% of the student population. Furthermore, Miles was disturbed to witness faculty and staff openly supporting the Black Student Action Network, an underground militant organization that emerged after the state legislature disbanded the Black Student Union in 2024. Meanwhile, white students' efforts to establish a legitimate organization for preserving the history and values of Western Civilization remained unsupported. Miles' parents were understandably disappointed in the university. They had even threatened to rescind their substantial annual financial contributions to the university and make Miles transfer. However, Miles had staved off his parents' reaction by promising to create change within the institution

and found a White Student Union. For now, his parents agreed to continue giving to the university and allow him to continue his studies. This was important to Miles. As a minority in America and at the University of Florida, Miles believed white people needed a group to foster self-love, advocacy, and pride in their heritage.

Unfortunately, Miles had been unable to convince any staff members to sign on as an advisor, which led him to his most recent plan. Miles thought that if he could prove that the condition of white people was similar to the circumstances under which the Black Student Union was originally conceived, he could easily convince a faculty or staff member to be the White Student Union's advisor. He believed it was doable - with a bit of research.
Miles entered the library and approached the student employee, a brown-skinned woman, sitting behind the help desk.

"I am seeking information on the founding of the Black Student Union at UF. I heard that there was an exhibit on display right now. Is that correct?"

"It was," said the woman tepidly. "We had an exhibit in Special Collections. Unfortunately, we've been told it was out of compliance with state and institutional policies, and it has been closed to the public until it can be taken down."

"How can they do this?" balked Miles. "Isn't that a violation of freedom of speech? "I need that information for a project I'm working on!"

"Well, the information is still available," the woman clarified. "It's just that the way the information was presented made unfounded allegations of institutional racism against the university and state of Florida."

"Institutional racism?" Miles chuckled. "Talk about a blast from the past. Any chance I can take a peek anyway?"

The young woman behind the counter looked unamused. Miles poked out his bottom lip in mock sadness. She looked skeptically at Miles for an eternity before keying something that Miles could not read into the holographic screen before her face.

"Ok," she said, exasperated. "But I'll have to come with you. I'm Ella, by the way."

"Perfect! And I'm Miles," he said, smiling.

A Force to Deal With

Ella stood and walked around the counter. As she stepped from behind the holographic display, Miles saw that she wore a thick black sweater with red lettering that read *'Anti-Black Racism - Alive & Well @ UF Since 1853.'* Miles froze as he read the words.

"So, is this research for a class?" asked Ella as she began maneuvering through the library toward the exhibit.

Miles almost tripped over his feet as he snapped back to reality and struggled to catch up to Ella. He worried that if she knew about the White Student Union, she might be unwilling to help, so he acted like he hadn't heard her question. Ella stopped briefly at an unlabeled door before slipping in and closing the door. Seconds later, she motioned Miles inside.

The room was littered with Black Thursday artifacts. Historical photos were projected along

the walls. HoloGuides paced the room, reciting short vignettes and referencing photos as they appeared. An art installation of a giant scroll containing the list of demands submitted to University President Stephen C. O'Connell in April 1971 hung from the ceiling.

Miles approached a thick glass slate affixed to a marble base. This was the control panel for the university's new Arti-View, an immersive holographic visualization system that brought historical artifacts to life. Once programmed with the desired source material, the Arti-View could turn the room into a window to the past. Every document possessed by Special Collections was programmed into Arti-View, effectively making it a time machine.

"Please don't touch that, Miles," Ella said. She stepped before the Arti-View and scrolled through the menu with a finger. An endless sea of icons appeared, underscored by dates. She typed '*Black Student Union.'* The icons reindexed themselves. Ella clicked on the first available icon labeled as March 1968. Suddenly the room spun around them, and colors and images blended. When the room stopped spinning, they stood at the center of a living room filled with Black students.

One of the men in the room spoke, "If we are going to survive, we will have to fight. Each day we are *losing our identity* (R. Thompson, 1968, p. 3). The Afro-American Student Association (AASA) needs to be *a force to deal with whenever the UF administration makes any decision affecting Blacks*" (R. Thompson, 1968, p. 3).

"What is the Afro-American Student Association?" Miles asked the man.

"They can't hear you," Ella responded. "The Afro-American Student Association is a proto-BSU that was founded in 1967. So if you want to know how BSU was founded, the AASA is where you should start."

"They are fighting to save their identity. I can relate to that," Miles said to himself.

"How, exactly?" Ella asked.

"I just meant that I can understand why this group was so militant considering the national Civil Rights movement." Miles lied.

Ella pressed an icon on the control panel. The room spun around them again, and they were back in 1968. They were in a conference room. Two white men sat across from a group of Black students. A colorful graphic hovered over the head of one Black student, identifying him as Wayne Fulton, the president of the AASA. The white men were the directors of UF Housing and Off-Campus Housing, Harold C. Riker and Carl Opp.

"I want to be clear," said one of the students. "We are demanding that something be done about the racial housing discrimination in Gainesville."

"We are a university," said Riker. "We don't control the greater Gainesville community."

"This institution brings a tremendous wealth to the local community," Wayne Fulton began.

"I find it hard to believe that it cannot ensure fair and adequate housing for Black students."

"And how would you propose we do that?" asked Opp.

"By *prevent[ing] students from renting from a landlord that discriminates, thus freezing the landlord out*" (Almand, 1968, p. 5). Fulton responded.

"That's not possible," said Riker. "Your only option would be to seek prosecution under the 1964 Civil Rights Act."

The scene froze. Miles rolled his eyes.

"I'm afraid to ask what you are rolling your eyes at," Ella said.

"I don't understand why they expected the university to strongarm landlords for them," Miles said.

Ella sighed. "They were asking their university – which couldn't house all of them, by the way – to help them secure housing in a racist community. How studious would you be if you weren't sure where you would lay your head each night?"

Miles stayed silent.

Any Means of Dissent is Possible

The room morphed around Ella and Miles again. They now stood along the perimeter of a large conference room. Stephen C. O'Connell, university president, presided over an event called the Action Conference.

"Student Government is committed to addressing the *problem of the Negro student* by helping to recruit more Black students to the University of Florida," said a young white man identified as Steve Zack, the administrative assistant to the student body president. "We need to ensure we don't lose *this Negro resource pool* to *other state universities up north*" (*SG to Recruit Negroes*, 1968, p. 6).

"Great," said President O'Connell. "And I am committed to ensuring that the university offers a Black history course."

However, for all the progress made, it was clear from the faces in the room that many students were discontented.

"*Hell no, one course in Black history is not enough. We need several more with Black professors teaching them, not whites*," Wayne Fulton chimed in (R. Thompson, 1968, p. 14).

"Is that all?" asked a member of the administration with a chuckle.

"No," Larry Jordan stated flatly. "We want to have a role in hiring Black professors, more Black-oriented courses, and counselors for Black students."

"And if we are unwilling to meet these demands?" asked President O'Connell.

"Let me be clear..." Fulton began. "If we do not see real progress in the coming weeks, then *any means of dissent is possible* within the current academic year" (R. Thompson, 1968, p. 3).

The scene froze again.

"You know," said Miles, "I feel like they are just expecting too much, too fast. After all the progress made in their first year, they are still ready to raise hell?"

Ella swallowed her anger. "How long after the university's founding did white students have to wait for classes about them to be taught by professors that looked like them? How long did white students have to wait for nondiscriminatory off-campus housing? How long did they

have to wait for counselors that understood their unique needs? How -"

"The administrators were trying!" Miles interrupted.

"Were they?" asked Ella. "This sounds like interest convergence to me."

Miles' blank stare implored Ella to keep talking.

"It seems like they could only figure out how to do things that were in the best interest of Black folks when Black people's demands converged with the interests of powerful whites," Ella remarked (Taylor, 2016). "President O'Connell was compelled by campus and community unrest to create the Action Conference. Even the Student Government initiative to bring more Black students to UF was described as a means to a financial end."

"Maybe that Steve Zack guy just chose his words poorly," Miles pleaded.

"You seem to have more sympathy for Steve Zack than any Black students we have seen."

"Because the institution is trying!" exclaimed Miles. "These students are so impatient and ungrateful."

"When you first visited campus, what color was your tour guide?" asked Ella.

"I don't know," said a frustrated Miles. "white, I guess?"

"You know," continued Ella matter-of-factly, "You never told me what course this research is for."

"White," responded Miles – still ignoring Ella's question. "But that doesn't mean the university is privileging me over Black students."

"Miles," began Ella. "What exactly are we doing here? You asked me to help you research the founding of the Black Student Union, but you seem resistant to the idea that there were legitimate grievances with the institution that warranted student activism."

"Sorry," said Miles. "Keep going?"

Ella slid her fingers along the control panel. When the room stopped spinning, they stood in a Gainesville barbershop in November 1968. A Black student identified as Fred Kanali entered the doors of the barbershop.

"You won't be getting a haircut here," replied the barber.

"What's the problem?" Fred asked.

"Listen nigger," began the barber. "You need to leave."

Fred, tears staining his brown cheeks, turned to exit the barbershop. The scene twisted around them as Ella moved them forward in time a few weeks. A group of white students had Fred surrounded.

"Can I please just go to class?" Fred asked.

Without responding, the white students began spitting on him. Fred covered his face, and the scene froze ("Racism Alive and Well," 1968, p. 7; "Interfraternity Council Blamed," 1969).

"He's had a rough couple of weeks," Miles conceded.

"How long is Fred supposed to wait patiently for basic human decency?" asked Ella.

Miles got the sense that he shouldn't respond. Ella changed the date on the control panel to April 4, 1968.

Suddenly, Ella and Miles stood in the center of a dark street. The scant light provided by the streetlights helped Ella identify the area as Northwest Gainesville, a predominantly Black area of the city. It was eerily quiet (Alper, 1968a; Alper, 1968b; Kennedy, 1968a) save for the sound of an approaching vehicle. Its headlights abruptly appeared as it reached the summit of a hill. The car slowed as it approached Ella and Miles.

"I didn't think anyone could see us," Miles said. His nerves made the statement sound more like a question.

A siren pierced through the silence. Red lights illuminated the neighborhood. The houses and trees looked as if they were stained with blood. The red light was abruptly replaced with an icy blue, followed by a spotlight - stopping them both in their tracks. Two police officers jumped out of the patrol car and swiftly drew their firearms.

"What the hell is going on?" demanded Miles.

"All right, boys. Keep your hands where we can see them."

Miles's heart raced in his chest. The pair turned around and saw a group of Black teenage boys. Their hands were in the air. Their eyes were wide with fear and confusion. The police approached the group of Black teenagers with their guns still drawn.

"We received a report of riots and property damage in this area," said one of the officers.

"What's that got to do with us?" one of the teenagers asked.

Reality stirred around Ella and Miles. When things settled, they were on the same dark road as the previous scene. Large, imposing military vehicles lined the street. The growl of their engines echoed through the streets. Men in military uniforms stood like sentries beside the vehicles. Arti-View identified these men as members of Troop E, 153 Armored Cavalry.

"I heard a white woman was assaulted by a group of these niggers last week after King was assassinated." One soldier grunted.

"Yeah, I heard a mob of them were rioting in the streets," another trooper responded.

"That's why we are here," said a man that was clearly more highly ranked than the others, "They can *speak their peace, march their march, and threaten their threats*, but we are going to keep them in line" ("Racial Peace," 1968, p. 6). Honestly, I get why they are upset. Martin Luther King Junior was the *only great leader of Black freedom that both Black and white felt akin to* (Moran, 1968, p. 7). But he also proved that peace was the only path to equality."

"Right," the first soldier responded, "and we are going to keep the peace. Military occupation is a far better outcome than 'temporary anarchy and local racial war'" ("Racial Peace," 1968, p. 6). "Ultimately, we will either 'sit down and talk, iron out our differences and be friends, or we shall destroy one another and the great nation which we all, Black and white, have built'" (p. 6).

The scene froze.

"Riots, property destruction, assaults," Miles began. "Wow."

"We don't even know if any of that happened," Ella responded. "If the riots, property destruction, and assaults were confirmable Arti-View would've shown us."

"Well, the military was there for a reason," said Miles. "I'm sure military presence averted *possible killings, lootings, and physical attacks*" ("A Solution," 1968, p. 6).

"Who said anything about looting and killing?" asked Ella.

"You know what I mean."

"I don't," Ella exhaled.

"I'm saying that violence solves nothing. It only destroys the great nation we've built."

"Great for who?"

Ella did not wait for a response. She moved the dial forward to April 6. Colors mingled and danced around them. When their vision settled, they stood outside of Mount Olive Baptist Church. AASA leaders Wayne Fulton and Larry Jordan stood on the church's raised steps next to two Black activists who were identified as Joe Waller and Levi Wilcox. About 70 other citizens crowded around them. After a corporate prayer and a collective Amen, the four leaders led the group down the street. The march ended at the Alachua County Jail (Kennedy, 1968c). An officer stood in the doorway to the jail.

"We are here to demand the release of Jack Dawkins," said Levi Wilcox to the officer.

"That Dawkins boy has been charged with arson. So unless y'all want to end up in jail alongside him, you need to go home," said the officer.

"Mark my words. The next time we come, we might take him," Wilcox said (Kennedy, 1968c, p. 3).

"You angry Negroes better stay away from this jail," replied the officer.

"Oh, we will be back," said Joe Waller. "This city is in danger of being destroyed by angry Negroes like ourselves. This is a *declaration of war - a declaration of independence*" (Alper, 1968a, p. 5).

"A war, huh?" Mocked the officer. "I thought your king ordered nonviolence. You Negroes just can't help yourself, though, huh?"

"You and I both know the *good white folks'* system birthed our anger," Wilcox said. "It was *[t]he assassin's bullet that killed Dr. King killed nonviolence, and just about killed integration*" (Alper, 1968c, p. 13).

The officer moved swiftly toward the crowd, trailed by several other officers. Ella couldn't tell how many officers there were, but they looked formidable despite being outnumbered.

"Joe Waller and Levi Wilcox," one of the officers began. "You two are under arrest for inciting a riot."

The scene froze.

Freedom and Power

Ella moved them forward in time to Sunday, April 7.

A Black man, identified as Dr. Marshall Jones, a psychology professor at UF, was leading a demonstration at Gainesville City Hall alongside students, faculty, and community members (Kennedy, 1968b).

"Gainesville is a racist community," Dr. Jones half-screamed.

The group responded affirmatively.

"The University of Florida is a racist institution," he continued.

More affirmation.

"Even as I speak, I am embroiled in a battle to obtain the tenure status that I have been denied tenure because of my commitment to justice and activism. There must be a reckoning, and it is up to the Black citizens of Gainesville and those who stand in solidarity with us to make this happen!"

Cheers erupted.

He continued, "We must never forget that King's philosophy 'was not simply nonviolence.' He called for *resistance to war, poverty, and racism by direct action* (Kennedy, 1968b). We must take direct action against Gainesville and the University of Florida for how they alienate, denigrate, and impoverish Black citizens and students."

The group began to march closer to City Hall. As they approached, police officers flooded out of the doors and descended upon the group of demonstrators. Dr. Marshall Jones and about 20 other people were placed in handcuffs.

The scene froze.

"I feel like they are just mad at white people but aren't interested in being productive. They just want to tear down innocent white people," Miles quipped.

"Are we watching the same scenes?" Ella asked. "I see several powerful white people ranging from disinterested to staunchly opposed to progress. Black activists, like Dr. Marshall Jones and Levi Wilcox, were not blindly upset with all white people. You heard Wilcox say that it was the *good white folks' system* that birthed their anger. The system is what is hated, not white people."

"You believe that?" asked Miles.

"I do," Ella continued. "Frantz Fanon (1963) argued that the colonizer conceptualizes the life of the colonized individual, and thus decolonization must be *an agenda for total disorder*. Since we are colonized through violence, *the colonized man liberates himself in and through violence*"(p. 2; p. 44).

"Who is France Fanon?" asked Miles incredulously.

Ella shut her eyes and exhaled loudly.

So, you agree with the riots and the beatings?" Asked Miles.

"We have witnessed exactly zero riots and zero beatings," said Ella. "And no, I am not advocating for killings, beatings, or the destruction of property. But shouldn't we question why the tactics used to take and make this country are suddenly taboo when the colonized threaten to adopt them? Martin Luther King Jr.'s philosophy was that civil disobedience and demonstrations were the *instruments of creative power that work to pull down mountains of evil* (Fine, 1968, p. 7). Tearing down mountains is a violent process, wouldn't you agree?"

Miles said nothing. Ella moved them to May 11, 1969.

The Afro-American Student Association was meeting with UF administrators. President Stephen C. O'Connell and Vice President for Student Affairs Lester Hale were there. Miles peered over President O'Connell's shoulder to sneak a look at the agenda.

"Black student recruiting, dormitory bigotry, remedial programs for disadvantaged students, and the Black student-administration relationship" (Osier, 1969, p. 1), began Miles. "Seems like the agenda hasn't changed much since 1967."

"Neither have the problems," quipped Ella.

"Nearly half of all Black students at the University of Florida are members of the AASA (Doucette, 1969), so our requests are those of a significant portion of Black students," said Larry Jordan.

"Listen," said Lester Hale. "The University of Florida is not interested in instituting remedial programs for disadvantaged Black students. As this institution grows, more competitive *junior colleges should be the focus of Black student recruiting*. Black students have it good at UF. It's time to stop asking for more. Meeting adjourned" (Joseph, 1969, p. 1).

The scene froze.

Ella clicked on the next available date, May 18, 1969.

Ella and Miles stood outside Tigert Hall, UF's administration building, amongst about 75 students. Many of the students were members of the AASA, but about 45 white students joined them.

One of the Black students addressed the group, "Today we commemorate the Supreme Court's *Brown v. Board of Education* decision. But, unfortunately, this commemoration is not a celebration. Despite the Supreme Court's ruling, *UF has continued to exist as a segregated institution* where Black students merely exist as tokens. The newspaper reports that Mr. Hale called our meeting last week a success. We disagree" (Joseph, 1969).

Larry Jordan emerged from the group grasping a copy of the Plessy v. Ferguson Supreme Court decision. He ascended the steps of Tigert Hall, took a lighter from his pocket, and set the papers ablaze.

"The deliberateness of a snail and the speed of a turtle will not help us. We must do something now!" Larry Jordan declared. "Today we present four simple demands to the UF administration: '1) more Black students, 2) more Black faculty members, 3) employment of more Blacks in staff positions, and 4) training of campus police not to harass Black students'" (Reddick, 1969, p. 1).

"Seriously? Fire?" Miles asked in shock.

Ella rolled her eyes and moved them to September 1969. A Black man in a dark suit stood before the Afro-American Student Association. The students looked on skeptically.

"Good evening. My name is Roy Ishman Mitchell. I am the *new director for Blacks and disadvantaged students*. I'll be taking over many of Don Henderson's responsibilities, who served as the Special Assistant to the Vice President for Student Affairs from June until the beginning of this month. My primary role will be recruiting Black *and economically disadvantaged white students from the state's community colleges*. I will be hiring three graduate assistants to support my work as well. I look forward to working with you all to improve UF" (Hinant, 1969, n.p.).

The students appeared unconvinced and unimpressed.

The scene froze.

"The next stop will be the last stop," said Ella. "October 8, 1969."

They stood in a classroom with journalist John Sugg and Larry Jordan, now identified as Secretary of Minority Affairs for Student Government and a founding member of the Afro-American Student Association.

"So Larry, I spoke to Mr. Roy Ishman Mitchell, and he communicated that *the atmosphere on campus is atrocious* and that, barring a change, *all hell will break loose*. Do you have a response to this?" (Adams, 1969, p. 3).

"I do. But first, I want to make it abundantly clear that the Afro-American Student Association is dead," Larry Jordan began. "It has been replaced with a new organization of Black students, the Black Student Union (BSU)."

"Why the shift?" John Sug asked.

"The heightened political identity of the Black students at the University of Florida. We believe that *there can be no separation of the problems of Black students from the problems of Black people. There can be no separation of the problems of racism from the problems of developing an academically liberated mind. We shouldn't confine our activity to an attack of the problems of Black students. Black workers are equally or more important*" (Sugg, 1969, p. 5).

"How is this different from the beliefs of the AASA?" asked Sugg.

"We are a group of revolutionary nationalists. The Afro-American Student Association was culturally nationalistic. We have a political rather than cultural orientation, and our *duty as Black people is to confront the system [of racism] wherever and whenever necessary*. Our fundamental belief is that UF perpetuates racism, and *we want UF to take the lead in ending racism in the city, state, and nation*" (Sugg, 1969, p. 5).

"And I assume you all have some ideas of how you will do that?" asked Sugg.

"Of course," Jordan said with a smirk. "We have a ten-point program. Are you ready to take this down?"

John Sugg grabbed a pen and nodded (Sugg, 1969, p. 5).

1) Freedom and power to determine the destiny of our school
2) Full enrollment in the schools for our people

3) An end to the robbery by the white man of our Black community
4) Decent educational facilities fit for the use of students.
5) An education for our people that teaches how to survive in the present-day society
6) Exclusion and restriction of all racist teachers from all public schools,
7) An immediate end to police brutality and murder of Black people. Exclusion and restriction of all police and special agents from school premises
8) Reinstatement of all students who have been exempt, expelled, or suspended from school
9) Trial in student court by a jury of their peer group or students of their school of all students brought to the trial.
10) Power, enrollment, equipment, education, teachers, justice, and peace.

The scene froze.

Look at the Data

"Progress was being made," Miles began, "but instead of taking this as a sign of *good faith*, the students further radicalized themselves and made unrealistic demands."

"Miles, when should Black people expect to cash in on this good faith? It seems that fostering racism is the University of Florida's natural state. These demands are nearly identical to those of other Black Student Unions nationwide during this period (Rogers, 2012; Wallenstein, 2008). The needs were clear, but the response was insufficient. It's no wonder Black Thursday happened."

"Black Thursday was reckless. The students fought for years to increase enrollment and then walked out. Where's the logic?" Asked Miles.

"So Black people are supposed to endure oppression while trusting that white people will voluntarily decide to dismantle White supremacy? Where's the logic?" Quipped Ella.

"They stood in silence.

"Miles, why are you really here?" Asked Ella.

"I'm launching a UF White Student Union here at UF, and I thought learning about the history of BSU would help. I just want to create a space for white students to celebrate their history. "

"Which parts of their history, exactly?" Ella asked. "Settler colonialism, chattel slavery, whatever the hell Donald Trump was?"

"Your anti-white racism is showing." snapped Miles.

Ella exhaled heavily. "Please explain how anything you've seen today makes you think that UF needs a White Student Union."

"I saw a group of minorities fighting for a voice within the university. White students need to protect our voice and our interests before it's too late," said Miles.

"This university was literally built for you!" Ella exclaimed. "Your interests are the foundation of the university."

"Look at the data," Miles responded. "The white student population is declining at a steady pace. We are the minority, yet the Black Student Action Network, which was supposed to be disbanded, is thriving and has support from faculty and staff. What is the group even fighting for these days?"

"More Black mental health counselors," began Ella. "More Black advisors. More Black career coaches. More students who are descendants of enslaved people."

"Black students already have it good at UF," Miles quipped. "Maybe that wasn't true when Lester Hale said it, but surely we can agree that it is true today."

"Miles, you only believe that because you aren't a Black student at UF," responded Ella.

"Ella, things are much better today than in the 1960s. Black people need to acknowledge that UF has done enough for them."

"Enough? Miles, you can't believe that." Ella asked. She sounded genuinely hurt.

"I believe that Black students and their woke agenda have been slowly killing this great university since they were admitted in the 1960s."

Ella exhaled as she moved toward the exit.

That night, Ella sent Miles a final appeal. As a Black woman and first-generation college student, Ella almost did not know where to begin. Her parents took out a reverse mortgage on their home and borrowed from their retirement just to help her afford tuition at the University of Florida. For Ella, visiting these moments in Black history at the University of Florida connected her experience at the institution to an ongoing struggle and solidified the importance of persevering. Rather than lean on her own words, Ella used an adapted version of an opinion editorial written by a Black student in 1969. She hoped that the words would resonate with him:

> [In] your distorted views…only you are responsible for the great Western strides of progress, only your paternalistic liberalness or conservative radicalness can accurately decide the best distributions of rewards, the best methods of educating the masses and the proper attitude, manner, and techniques one should use in politely requesting a change in your status quo white existence. And for a while, we even believed you. But uh-uh, no mo' baby. You're unequivocally and damned wrong. (Horne, 1969).

Miles' reply was short -"Ella, Thank you for your perspective. After careful consideration, I've decided not to start the White Student Union. Instead, I've decided to run for Student Government President. Our time together made me realize that what UF needs is to put an end to racial divisiveness. If I win, I will dismantle the Black Student Action Network - expelling all students who choose to remain affiliated and pursuing disciplinary action against faculty or staff aligned with this radical woke mob. I will make UF great again...for all students."

Discussion

This speculative fiction composite counterstory elucidates the logic that leads to the deconstruction of measures aimed at redressing racial injustices and advancing equality, such as Black student organizations. Miles represents those in power who acknowledge systemic racism but work to end measures designed to reverse its effects as if they are no longer needed (Taylor, 2000). Dorsey and Chambers (2013) refer to this process as "Cedar" or C-D-R, convergence-divergence-retrenchment, explaining how the interests that converged in affirmative action are quickly moving toward divergence and retrenchment.

Miles is a white cisgender heterosexual man from a high-income family. His character and the

perspectives he embodies represent an amalgamation of Donald Trump's hubris and the many white characters encountered throughout the narrative. Ella, whose namesake is derived from Ella Baker, is a Black woman and first-generation college student. She represents the legacy of Black students at the University of Florida who have been thrust into the roles of activist and educator since their first moments on campus. Ultimately, it is important for Miles to reject the knowledge that Ella presents because racist policymaking is not traceable to a lack of knowledge. Thus, their interactions are representative of the tension between disparate interests – converging for a period before diverging and ultimately retrenching.

The Afro-American Student Association's agenda, and the Black Student Union after it, is not a foreign conception in 2024. UF's Black student enrollment has declined for the past decade, with Black students representing 10.1% of the total student population in 2009 and 6.97% in 2019 (*Enrollment*, 2020), even as the university ascends the *US News and World Report* rankings. Black students at UF endure an anti-Black climate perpetuated by their fellow students (Aspuru, 2020; Escalante, 2019; Kline, 2016) and the institution itself (Caron, 2018; Maner, 2019; Stewart, 2019; Wegman, 2017). Black students continue to fight for a student experience free from racial trauma (Aspuru, 2020; Wolcoff, 2020; Wood & Hernandez, 2020). There has undoubtedly been progress since the late 1960s and early 1970s. However, it is worthwhile to question the extent to which this progress was palatable because of its capacity to serve the interests of the (predominantly) white state and university leadership.

Governor Ron DeSantis has taken up the cause of resisting the *woke mob* and refers to Florida as the state "where woke goes to die" (DeSantis, 2023). Specifically, he has defunded *DEI and CRT bureaucracies*, hoping they will *wither on the vine*. These policies aim to ensure "Florida's public universities and colleges are grounded in the history and philosophy of Western Civilization" and "prohibiting higher education institutions from using any funding, regardless of source, to support DEI, CRT, and other discriminatory initiatives" (Staff, 2023). Furthermore, House Bill 999 requires state institutions to remove from its programs "any major or minor in Critical Race Theory, Gender Studies, or Intersectionality, or any derivative major or minor of these belief systems" (Fla., 2023) and curtails DEI efforts in areas like hiring, performance appraisals, and procurement. The dark reality of Florida's political climate is that we might soon witness the end of the institution's ability and willingness to support organizations like the Black Student Union. Even if the organization's existence is permitted, the lack of *DEI bureaucracies* will prohibit institutions from acting on students' demands. The possible elimination or defunding of these organizations will likely have a deleterious impact on Black students attending PWIs as studies have underscored such organizations' impact on the well-being and overall academic success of Black students (Brunson et al., 2024).

Conclusion and Implications

We contend that the targeted nature of these policies and the prioritization placed on espousing *Western Civilization* is institutionalized white supremacy (Maher, Gunaydin, & McSwiney, 2021) and anti-black epistemicide (Grosfoguel, 2013). We take these assaults seriously, and the Afropessimism present in our conclusion exists as resistance to both the "revisionist history that supports dangerous majoritarian stories" and "the anti-Black structures in their lives" (Coles & Powell, 2019, p. 118). Given the current context of the University of Florida's anti-DEI actions, our story expresses a form of "gloominess" about the future for Black students at the institution (Hart, 2021).

The relevance of this study is not unique to the University of Florida or the state. At present, 20 states have each passed laws or other state-level bans on Critical Race Theory (Schwartz, 2023). Moreover, anti-Blackness permeates American public education and society (Dumas & ross, 2016). Thus, this project transcends historical storytelling to serve as a prophetic refutation of white supremacy, grounded in the past, present, and future. While Miles embodies the normality of anti-Blackness, Ella represents Black optimism - hopeful in her ability to shift Miles' perspective through education. Hart (2018) explained that while Black optimism and Afropessimism have "similar conceptual roots," they bear different flowers (p. 16). He noted that "Afro-pessimists see the present order of things as radically anti-black, as constitutively incapable of apprehending the humanity of Black people" (Hart, 2018, p. 17).

Ultimately we use this story to reveal the necessity of honoring the history of the Black Student Union at UF while sharing both our optimism and pessimism about a world free of anti-Blackness. We are optimistic about the power of storytelling to challenge majoritarian narratives (Dumas & ross, 2016; Solórzano & Yosso, 2016) and "create space for Black liberatory fantasy "(Coles & Powell, 2019, p. 118); however, the historical and contemporary plight of Black people shows us that it takes more than sharing of history for systemic change.

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References

A bill to be to be entitled, H.B.999: Public postsecondary educational institutions. 118th Cong. (2023). Retrieved February 15, 2023, from https://www.flsenate.gov/Session/Bill/2023/999/ByVersion

Adams, R. (1969, October 30). UF life: bad scene for Black students. *The Florida Alligator*. p. 2.

Almand, J. (1968, April 5). Negro students charge housing discrimination. *The Florida Alligator*, p. 2.

Alper, B. D. (1968, April 4). A new civil war threatens the U.S. *The Independent Florida Alligator*, p. 7.

Alper, H. (1968, April 8a). 2 marchers jailed for inciting riots. *The Florida Alligator*, p. 5.

Alper, H. (1968, April 8c). City should 'get right' negro militants warn. *The Florida Alligator*, p. 13

Alper, H. (1968, April 9b). Troops patrolled the city again Monday night. *The Florida Alligator*, p. 1.

Aspuru, A. (2020, July 5). 'Please listen to us': Black students demand change, say they feel unsafe and unwanted at Uf. *The Florida Independent Alligator*. Retrieved September 15, 2021, from https://www.alligator.org/article/2020/07/please-listen-to-us-black-students-demand-change-say-they-feel-unsafe-and-unwanted-at-uf

Brunson, A. L., Brockington, M., Nichols, G., & Rivera, C. (2024). Black Students' Suggestions for an "Inclusive" and "Excellent" University: An Examination of an Historically and Predominantly White Institutions in Southeast Georgia. *Humanity & Society*, *Preprints*. https://doi.org/10.1177/01605976241236863

Associated Press (AP). (2024, March 12). NAACP warns Black athletes about attending Florida universities. *HuffPost.* https://www.huffpost.com/entry/naacp-black-athletes-florida university_n_65f0492ce4b02ad7de1a4f0e

Bell, D. (1992). *Space traders. In faces at the bottom of the well.* Basic Books.

Bell, D. A. (2005). Racial realism. In R. Delgado & J. Stefancic (Eds.), *The Derrick Bell reader* (pp. 55–96). New York University Press.

Brown, K. & Jackson, D.D. (2022). The history and conceptual elements of Critical Race Theory. In M.Lynn & A.D. Dixson (Eds.), *Handbook of Critical Race Theory in Education* (2nd ed., pp. 32-43). Routledge.

Brunson, A. L., Brockington, M., Nichols, G., & Rivera, C. (2024). Black Students' Suggestions for an "Inclusive" and "Excellent" University: An Examination of an Historically and Predominantly White Institutions in Southeast Georgia. *Humanity & Society*, *Preprints*. https://doi.org/10.1177/01605976241236863

Bryan, N. (2020). Remembering Tamir Rice and other Black boy victims: Imagining Black PlayCrit literacies inside and outside urban literacy education. *Urban Education,* 56(5), 744-771. https://doi.org/10.1177/0042085920902250

Caron, C. (2018, May 8). *Faculty member shoves Black graduates offstage, and the University of Florida apologizes*. The New York Times. https://www.nytimes.com/2018/05/08/us/florida-black-students-graduation.html

Carrington, A. M. (2016). *Speculative blackness: The future of race in science fiction*. University of Minnesota Press.

Coles, J. A. (2023). A BlackCrit re/imagining of urban schooling social education through Black youth enactments of Black storywork. *Urban Education*, *58*(6), 1180-1209. https://doi.org/10.1177/0042085920908919

Coles, J. A., & Powell, T. (2019). A BlackCrit analysis on black urban youth and suspension disproportionality as anti-black symbolic violence. *Race Ethnicity and Education, 23*(1), 113-133 https://doi.org/10.1080/13613324.2019.1631778

Cook, D. A., & Dixson, A. D. (2013). Writing critical race theory and method: A composite counterstory on the experiences of Black teachers in New Orleans post-Katrina. *International Journal of Qualitative Studies in Education*, *26*(10), 1238-1258.

Delgado, R. (1989). Storytelling for oppositionists and others: A plea for narrative. *Michigan Law Review*, *87*(8), 2411–2441. https://doi.org/10.2307/1289308

DeSantis R. (2023, January 3). "Inaugural Address." Florida Governor Ron DeSantis. https://www.flgov.com/2023/01/03/governor-desantis-delivers-inaugural-address-sets-priorities-for second-term/

Doucette, D. (Ed.). (1969, May 13). Blacks Have Faith. *The Independent Florida Alligator*, p. 6.

Dumas, M. J., & ross, k. m. (2016). "Be real Black for me": Imagining BlackCrit in education. *Urban Education*, *51*(4), 415-442. https://doi.org/10.1177/0042085916628611

Enrollment. (2020*). Institutional planning and research.* Retrieved March 3, 2023, from https://ir.aa.ufl.edu/uffacts/enrollment-1/

Escalante, A. (2019, November 17). Black students called racial slurs in SNAP van. *The Independent Florida Alligator*.

Fanon, F. (1963). *The Wretched of the Earth*. Grove Press.

Fine, D. (1968). Martin Luther King: A student's epitaph. *The Florida Alligator,* p. 7.

Grosfoguel, R. (2013). The structure of knowledge in westernized universities: Epistemic racism/sexism and the four genocides/epistemicides of the long 16th century. *Human Architecture, 11*(1), 73–90. https://search-proquest.com/libezproxy2.syr.edu/docview/1470425135?accountid=14214

Hart, W. D. (2018). Constellations: Capitalism, antiblackness, afro-pessimism, and Black optimism. *American Journal of Theology & Philosophy*, *39*(1), 5–33.

Hart, W.D. (2021). Afterlives of slavery: Afrofuturism and Afropessimism as parallax views. *Black Theology*, 19 (3), 196–206. https://doi.org/10.1080/14769948.2021.1990495

History. (n.d). *The University of Florida's Black Student Union.* https://www.ufbsu.com/history

Horne, D. (1969, May 7). Keep your name, buddy, I don't want It. *The Florida Alligator. n.p. Institute of Black Culture.* (n.d). Institutes Project. https://institutes.multicultural.ufl.edu/the-ibc/

Kennedy, H. (1968, April 8b). Racism in city, Jones charges. *The Florida Alligator*, p. 1.

Kennedy, H. (1968, April 8c). Ghetto tense after marches. *The Florida Alligator*, p. 3.

Kennedy, H. (1968, April 9a). Streets were eerily silent. *The Florida Alligator*, p. 1

Kline, D. (2016, November 21). *Racial message written on UF dorm door*. WUTF. https://www.wuft.org/news/2016/11/21/racial-message-written-on-uf-dorm-door/

La Casita. *The Independent Florida Alligator*. https://www.alligator.org/news/students-march-against-the-mcda-s-proposed-design-for-the/article_804f3c5c-6756-11e7-96b8-0b7e7e9bb4fd.html

Ladson-Billings, G. (2016). Just what is critical race theory and what's it doing in a nice field like education? In E.,Taylor, D. Gillborn, & G. Ladson-Billings (Eds.), *Foundations of critical race theory in education* (pp. 15–30). Routledge.

Ladson-Billings, G. (2022). Critical Race Theory--- What it is not! In M.Lynn & A.D. Dixson (Eds.), *Handbook of Critical Race Theory in Education* (2nd ed., pp. 32-43). Routledge.

Maher, H., Gunaydin, E., & McSwiney, J. (2021). Western civilizationism and white supremacy: The Ramsay Centre for Western civilisation. *Patterns of Prejudice*, *55*(4), 309–330. https://doi.org/10.1080/0031322x.2021.2014087

Maner, T. (2019, September 23). UF School of Theatre and Dance responds to students' claims of racism. *The Independent Florida Alligator*. https://www.alligator.org/news/uf-school-of-theatre-and-dance-responds-to-students-claims-of-racism/article_7fc83946-ddbf-11e9-9d83-231231bc7110.html

Moran, B. (1968, April 5). Epitaph for a Leader. *The Florida Alligator,* p. 7.

Osier, D. (1969, May 12). Administrators, blacks meet and air gripes. *The Florida Alligator.* p.1.

Racial Peace (1968, April 8). *The Florida Alligator,* p. 6.

Racism alive and well. (1968, December 2). *The Florida Alligator,* p.7.

Rayford, R. R. (2024, April 19). Black Univeristy of Florida graduates call for the school to reinstate DEI programs with private funding. *Essence.* https://www.essence.com/news/university-florida-private-donors-reinstate-dei/

Rogers, I. H. (2006). Celebrating 40 years of activism. *Diverse Issues in Higher Education, 23*(10), 18-22.

Rogers, I. H. (2009). Remembering the black campus movement: An oral history interview with James P. Garrett. *The Journal of Pan African Studies, 2*(10), 30-41

Rogers, I. H. (2012). *The Black campus movement : Black students and the racial reconstitution of higher education, 1965-1972.* Palgrave Macmillan.

Rooks, N. M. (2006). *White Money/Black Picower: The Surprising history of African American studies and the crisis of race in higher education.* Beacon Press.

Schwartz, S. (2023, February 3). *Map: Where critical race theory is under attack*. Education Week. https://www.edweek.org/policy-politics/map-where-critical-race-theory-is-under-attack/2021/06

SG to recruit negroes (1968, November 18). *The Florida Alligator,* p. 6.

Solórzano, D. G. & Yosso, T. (2016). Critical race methodology: Counter-storytelling as an analytical framework for education research. In Taylor, E., Gillborn, D., & Ladson-Billings, G. (Eds.), *Foundations of critical race theory in education* (pp. 127-142). Routledge.

Staff. (2023, January 31). Governor DeSantis elevates civil discourse and intellectual freedom in higher education. Florida Governor Ron DeSantis. https://flgov.com/2023/01/31/governor-desantis-elevates-civil-discourse-and-intellectual-freedom-in-higher-education/

Stewart, F. (2019, April 29). *University of Florida accused of racism days ahead of graduation*. WCJB. https://www.wcjb.com/content/news/University-of-Florida-accused-of-racism--509248241.html

Sugg, J. (1969, October 9). New Black Student Union replaces AASA. *The Florida Alligator*, p.5.

Taylor, E. (2000). Critical Race Theory and Interest Convergence in the Backlash against Affirmative Action: Washington State and Initiative 200. *Teachers College Record, 102*(3), 539–560. https://doi.org/10.1111/0161-4681.00067

Taylor, E. (2016). The foundations of critical race theory in education: An introduction. In Taylor, E., Gillborn, D., & Ladson-Billings, G. (Eds.), *Foundations of critical race theory in education* (pp. 34 47). Routledge.

Thomas, Z. (2024, March 4). UF eliminates diversity: What's known and what remains unclear. *The Independent Florida Alligator.* https://www.alligator.org/article/2024/03/uf-eliminates-diversity-whats-known-and-what-remains-unclear

Thompson, C. J. (2004). The changing role of the village: College student activism in the post-Brown era, 1967-1969. *Urban Education, 39*(4), 428–441.

Thompson, R. (1968). Black students want fast changes. *The Florida Alligator*, p.3; p.14.

Tillis, G. E. (2018). Antiblackness, Black suffering, and the future of first-year seminars at historically Black colleges and universities. *Journal of Negro Education*, 87(3), 311–325. https://doi.org/10.7709/jnegroeducation.87.3.0311

Wallenstein, P. (2008). *Higher education and the civil rights movement White supremacy, black southerners, and college campuses*. University Press of Florida.

Wegman, C. (2017, July 13). Students march against the MCDA's proposed design for the IBC.

Wolcoff, R. (2020, October 7). UF Students Hold Protest Demanding Name Change For The Reitz Union. *WUFT*. National Public Radio. https://www.wuft.org/news/2020/10/07/uf-students-hold-protest-demanding-name-change-for-the-reitz-union/

Womack, Y. L. (2013). *Afrofuturism : The World of Black Sci-Fi and Fantasy Culture: Vol. First edition*. Lawrence Hill Books.

Wood, T., & Hernandez, D. (2020, August 28). UF athletes, other protesters march against racial inequality. *The Independent Florida Alligator*. https://www.alligator.org/article/2020/08/uf-athletes-other-protesters-march-against-racial-inequality

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Students speak: Academic, career, and sociocultural experiences of African American college students

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Abstract

This manuscript presents the outcomes of a qualitative research investigation centered on the experiences of African American college students in terms of their preparation for high school, college, and careers within a Predominantly White Institution (PWI) situated in rural southeastern Wisconsin. At the time of this research, the comprehensive public university had an undergraduate enrollment of 10,196 students. Among these students, 82.1% self-identified as White, 7.8% as Hispanic or Latinx, 5.4% as African American, 3.2% as Asian or Southeast Asian, and 0.9% as American Indian or Alaskan Native. Using semi-structured interviews with willing student participants, the primary objectives of this study were twofold: (1) to recognize the sociocultural and institutional elements that influence the career trajectories of African American students attending the institution and (2) to effectively capture the educational and career viewpoints and voices of these students as they navigate the complex sociocultural and institutional landscape. Key findings from the research highlight the students' perspectives on the substantial connections between their high school experiences, particularly those in and around a major urban center in the Midwest, and their subsequent college and career paths. Additionally, the study underscores the challenges these students encounter while navigating the physical and social spaces on a rural PWI campus. Recommendations are made for creating a more welcoming space for African American students and for supporting those engaged in the work.

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Introduction

A growing number of African American students are entering higher education institutions, yet the graduation rates for these students remain disproportionately lower. According to the U.S. Department of Education (2019), only 42% of African American students who enroll in colleges or universities manage to graduate within six years, in stark contrast to the 66% graduation rate for White students. The experiences of African American students within Predominantly White Institutions (PWIs), where a significant majority of them choose to enroll, have garnered significant attention in scholarly circles, aiming to comprehend and address these disparities (Adams & McBrayer, 2020; Harwood et al., 2012). Research has consistently highlighted the marked differences between the experiences of African American and White students within PWIs (Rozek, 2020). These differences are influenced by several

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pre-college factors, including the communities in which students are raised (Benbow et al., 2020), the significance of familial connections (Newkirk, 2022), participation in bridge programs (Maldonado, 2022; Strayhorn, 2011), and even the racial composition of the high schools they attended (Offidani-Bertrand et al., 2022). Interestingly, a significant proportion of African American students have not encountered predominantly White environments prior to attending PWIs (Alvarez et al., 2009; Benbow et al., 2020). These new encounters in predominantly White settings can lead to feelings of culture shock, exhaustion, and isolation, fueled by exposure to both explicit and implicit forms of stereotyping and hostility (Greer & Chwalisz, 2007; Mills et al., 2020). The psychological stress arising from these experiences can significantly impact the overall well-being and academic success of African American students within PWIs.

The experience(s), specifically academic and career, of students identifying as racial minorities and African American students has been documented but much of the extant research that examines African American students in Institutions of Higher Education (IHEs) does not use theoretical or conceptual frameworks that center on the needs of Black students (Gooden et al., 2018). The reason for this phenomenon is simple: communities of color live in a society where their cultures and/or experiences are "invisible" and disregarded respectively (Gooden et al., 2018). As such, the academic and/or career experience(s) of racial minority students can be skewed adversely despite having access to educational bridges or spaces that promote inclusivity.

To help facilitate equity and foster inclusivity in academic spaces and more specifically, in classrooms, "safe spaces" have been created by educators. Safe spaces entail creating an environment where people are respected and accepted (Lopez-Littleton et al., 2018) and serve as a place where students can seek refuge during times of difficulty in school. Consequently, safe spaces are not conducive to having difficult conversations centralizing race, racism, or equity because students must operate under constraints and conform to dominant ways of thinking and behaving (Lopez-Littleton et al., 2018). Simply, this means that students engaging in conversations centralizing social and racial equity may not be able to fully express their true sentiments despite being in a safe space because of pressures innate to the dominant environment that other students in the majority perpetuate (that may not support equity initiatives). Rather than a safe space, "brave spaces" have been suggested. This involves creating a learning space where risk-taking, discomfort, and fear are understood as fundamental elements (Lopez-Littleton et al., 2018). A brave space supersedes a safe space as its purpose is to create a medium where discourse around difficult topics can occur and more importantly, where students can be confident in their ability to engage in genuine discussions about controversial issues without feeling the need to conform to dominant behaviors (Lopez-Littleton, 2016). These brave spaces recognize the need for courage rather than conveying the illusion of safety, allowing for genuine dialogue regarding these challenging and controversial topics.

The delineation between 'safe spaces' and 'brave spaces' is necessary because the two are not synonymous contrary to popular belief, just as equity and equality are two different concepts that aim to achieve different goals. This is because these spaces shift classroom facilitation away from the traditional notion of attempting to create a classroom environment where all students are thought to feel safe (Boostrom, 1998), to one where students are confident enough

to vocalize their lived experiences, opinions, listen to others, and grow through diversification of perspective as part of the learning process (Lopez-Littleton, 2016). The purpose of brave spaces is to encourage students to take risks to engage in contentious conversations rather than seeking refuge in a "safe space". This is paramount in academic and to a certain extent, professional spaces of the direct connection to the formulation of positive experiences for students. There is a need for students who will enter the U.S. workforce in a variety of occupations to have positive (academic and professional) experiences and exposure to such spaces to obtain an understanding of the various forms of equity (social, racial, educational, and gender), democracy, freedom, and other values necessary for inclusivity and navigating the nuances of education. These spaces create an opportune platform for all students, especially those who are non-minority, to diligently examine the ability of U.S. society to sustain systems of practice that allow differential access, opportunities, and outcomes to exist (Lopez-Littleton, 2016; Lopez-Littleton et al., 2018) or manifest in the form of academic and career experience(s).

The primary research questions that guided this study were:

1. What is the narrative of African American students based on their pre- and post-high school experience(s)?
2. What are the African American students' academic and sociocultural experiences in their current institutional setting?

The remainder of this paper will present an overview of the theoretical background, materials, and methods used to conduct the study. Following the methodology, the findings will be detailed, leading into a comprehensive discussion. The paper will conclude with several recommendations based on the results.

Theoretical Background

Extant Student Retention Theory Overview

The retention theories furnished by sociologists identifying factors influencing student persistence (e.g., peer support and social isolation) (Jama et al., 2009) have been sparse. These factors influence whether a student will have positive or negative academic and professional experiences in an educational environment. Further, they also serve as a predictor of a student's ability to integrate and be retained within their educational environment. These retention theories are losing relevance as education and society evolve and constitute broad-based approaches to student persistence. However, these theories are not as applicable to minority students, and despite their contending dropout occurs because students do not integrate into the environment. This is only half the battle for minority students because they may require more resources and interactions than originally detailed theoretically, both of which influence their experience(s) (Law et al., 2019). These resources and interactions can be supplied largely through Registered Student Organizations (RSOs), which may result in the creation of additional space for racial minorities. Such spaces are lacking, underscoring the necessity of this research and illuminating an avenue where Social Network Theory (SNT) may be of beneficence in bridging the gaps not only within student persistence but also space creation that may be supplemented through organizational advocacy and faculty/staff.

Social Network Theory

SNT is an encompassing theory that explains the salience of an actor's social network and how their social interactions link or 'ties' them to others. Social networking and networking are essentially two sides of the same coin and consist of a process individuals use to develop a relationship with other actors predicated upon mutual interests, information sharing, and other interdisciplinary reasons (Cote, 2019). The formation of these networking relationships with other actors allows for information exchange and knowledge attainment, which results in networking opportunities between actors internal and external to their network (Cote, 2019). In the context of SNT, actors are referred to as 'nodes', which can be an individual, teams, groups, or organizations (Cote, 2019; Storie, 2018). Nodes are connected via network ties (or 'ties'). The type and strength of the tie (i.e., strong or weak) dictates the development of the relationship and its nature (formal/informal or social/professional). For this paper, the term actor refers to an individual student.

Three scholars are credited with the creation and development of SNT: John Barnes, Mark Granovetter, and Ronald Burt. SNT's originator, Barnes, seminal research on social relationships in a small Norwegian city in the 1950s was the impetus of the theory (Cote, 2019). His initial work furnished an understanding of network ties across a social class system. The size of the setting was an inherent limitation because it was small; many communal members were related and/or knew each other on a deep, personal level (Cote, 2019). This reduced the reliability and validity of the findings, effectively passing the mantle to future scholars to spearhead the pursuance of reproducible results. Despite this, the impact of Barne's research cannot be refuted as it provided the foundation for SNT within an organizational setting, specifically examining social relationships and the impact of integral factors (e.g., hierarchy, centrality, power, etc.) on these relationships.

Development – Strength of Weak Ties & Structural Holes

Granovetter's analysis of the Strength of Weak Ties in a social network established one domain of SNT, in which he contended the stronger the tie between two actors (A and B), the more likely their social networks will overlap, meaning they will have ties with similar third parties (C) (Granovetter, 1973). This results in a strong tie being created between actors (A and B) and a weak tie created between A and C as well as B and C. The 'strength of a tie' is defined as a combination of the amount of time, emotional intensity, intimacy, and reciprocal services characterizing the tie (Granovetter, 1973). Granovetter's main argument is that bridging (i.e., weak ties) are a potential source of novel information; weak ties link actors to external information. Therefore, a weak tie can furnish new, non-redundant information that may not already be flowing within one's network of strong ties. Strong ties are unlikely to render new information because actors interact more frequently with similar people, resulting in increased information redundancy.

The crux of SNT resides in an actor's ability to develop the breadth and depth of their social network, leading to increases in networking opportunities, exchange of information, and diversification of perspective. In the context of higher education, SNT may help explain and predict retention issues, specifically for Black students. Research by Brass (1984), states environmental success is attributed to being well-integrated into a social network. Being involved in a social network may render insight and information students may not receive

otherwise; this information evokes benefits that increase opportunities. Information benefits exist in three forms: access, timing, and referrals (Burt, 1992). Thus, by being better connected via strong and/or weak ties, they may increase their access to information and expedite the receipt of information.

Social relationships comprise a significant portion of one's social capital, aiding in an actor's development. This social capital consists of ties external to one's family, including communal, academic, and social ties (Coleman, 1988). The socialization facet embedded within these activities expands their social network and improves their perception of college. Therefore, involvement in various activities may grant minority students access to information, develop more weak ties, and/or strengthen their extant weak ties. Said activities and ties may provide (peer) support, financial support, and a sense of belonging. These factors are salient for social network expansion, which has been suggested to increase retention (Deng et al., 2022; Jama et al., 2009). SNT may be powerful in student persistence and their experience due to weak ties being created that ground students within the social (network) community in their respective educational environments, inform them of and provide access to collegiate activities, and influence their decision to stay in school.

Method

Research Design

American and Black students' perspectives on college and career development within a Predominantly White Institution (PWI). This approach involves delving into participants' comprehensive personal experiences to explore a specific phenomenon, as elucidated by scholars like Marriam and Tisdell (2016). The study centered on conducting semi-structured interviews with students, as we believed this method was best suited to capture the nuanced narratives of their collegiate and career journeys. The participants included current Black or African American undergraduate students or recent graduates from a rural PWI institution. A convenience sampling method was employed, utilizing an email list from the university's diversity support program, which included students who self-identified as Black or African American.

Procedures

To initiate the study, a researcher responsible for student support and diversity initiatives at the institution sent out an email to African American and Black undergraduate students. This email outlined the study's broad objectives and invited students to potentially take part in the research. Moreover, the email sought individuals interested in co-leading the project, resulting in the involvement of two African American male undergraduate students who volunteered and were subsequently hired. These student researchers underwent qualitative research training led by another member of the research team. Throughout this training, the team engaged in discussions concerning the project's objectives, the roles of the student researchers, and the primary faculty researcher. Together, they crafted a semi-structured interview protocol designed to elicit academic and career narratives from the interviewed students. The questions spanned several categories, including high school experiences, college decision-making, university life, career planning, and the impacts of COVID-19, aiming to understand students' perspectives on their education. Examples of the questions were: How well do you

think your high school experiences prepared you for college? What are your expectations for yourself regarding college and your future? How would you describe the university's African American community? Additional questions, detailed in Appendix A, focused on critical aspects of the African American and Black student experience highlighted in existing literature. These included high school and bridge program experiences, the college decision-making process, the institution's cultural and social environment concerning African American culture, and students' career aspirations. After refining the interview protocol through testing, the research team sent out a recruitment email to all enrolled and recently graduated African American and Black students at the campus. This email requested volunteers for interviews, and ultimately, 14 individuals came forward and were interviewed as part of the study.

Data Collection

Data collection involved conducting one-on-one, student-led, semi-structured interviews, which took place either via Zoom or face-to-face. During these sessions, predetermined questions were asked to guide the conversation, with follow-up clarifying questions included as needed to gain deeper insights. Each interview generally lasted about an hour, providing ample time for comprehensive discussion. The interviews were audio recorded to ensure accuracy and subsequently transcribed for detailed analysis. This approach allowed for a thorough understanding of the participants' experiences and perspectives. The attributes of the researcher's participants are presented in Table 1.

Table 1. Interviewee attributes*

Attribute		N	%
Gender	Female	9	64.3
	Male	5	35.7
Undergraduate Major	Arts and Humanities	2	14.3
	Business	6	42.9
	Education	2	14.3
	Social Science	4	28.6
Enrollment Status	Second Year/Sophomore	2	14.3
	Third Year/Junior	1	7.1
	Fourth Year/Senior	7	50.0
	Fifth Year or Higher	1	7.1
	Graduated	3	21.4
	Frist Generation Students	5	35.7

**Mean Age: 22.9*

Data Analysis

The researchers utilized NVivo 11, a widely used software program for analyzing qualitative data, to conduct a thematic analysis of the interview transcriptions. Thematic analysis (Braun & Clarke, 2006), is a method for identifying, analyzing, and reporting patterns (themes) within data. In NVivo, interviews were read and "segmented," or separated into discrete parts, by interview question, which allowed the researchers to compare statements by an interviewee

on the topics about which interviewees were asked. After reading through the data and taking notes on several important themes that aligned with our study goals— typically ideas that resonated with the experience of student researchers as well as ideas that were much-repeated among interviewees—the team conducted a much more detailed, line-by-line inductive analysis (Saldaña, 2015) of specific interview segments speaking to these ideas. These segments included interviewee descriptions of their college preparation, the trajectories that brought them to the institution, and their experiences on campus and in the community surrounding the campus, through their entire tenure at the institution as well as through 2020 specifically. As this process unfolded, the team wrote notes on prominent ideas, views, and perspectives within each area of importance, noting specific points within each area that were shared or contested among interviewees, as well as interviewee quotations that represented these points well. Eventually, this process allowed the analysts to delineate and define three prominent themes from the interviews: high school bridges, Whitewater paths and space, and African American community. Descriptions of these four themes are presented below.

Results

After analyzing participants' (n = 14) unique responses relating to descriptions of their preparation for college, the trajectories that brought them to UWX, and their experiences on campus, three major themes emerged: 1) high school bridges, 2) the university's path and spaces, or 3) African American community.

Theme 1: High School Bridges

Salient links between high school and hometown experiences—including preparation and/or resources from urban/suburban or African American /White majority high schools, bridge programs, or neighborhoods—and college and career trajectories.

A significant recurring theme that emerged during the interviews centered on the pronounced connections that students perceived between their experiences in their hometowns or high schools, and their subsequent trajectories in college and career. This theme shed light on the interplay between these different phases of their lives. Out of the 14 interviewees, 10 hailed from the largest and most segregated city in the state, situated approximately an hour's drive away from the campus. Among these individuals, approximately half attended local district high schools that, according to certain students, lacked essential resources such as up-to-date textbooks and comprehensive career counseling services. Conversely, the other half attended either local private schools or public schools in suburban areas. These students often mentioned that these institutions had predominantly White student bodies and offered access to resources geared towards college and career preparation.

While all students in the sample conveyed that their high schools effectively equipped them with academic readiness for their college experience at UWX, a subset of graduates from private and suburban schools also highlighted how their high school experiences contributed to their cultural preparedness. Additionally, the students underscored the significance of high school-to-college bridge programs, with nine participants in the sample having taken part in these programs. Several students even participated in multiple bridge programs, such as TEAM GEAR UP (Gaining Early Awareness and Readiness for Undergraduate Programs), College Possible, Boys and Girls Club's Graduation Plus, or Stein Scholars programs. These bridge programs, as per the students' accounts, were often more actively promoted to those

attending majority-minority schools. The programs involved campus tours, support with college applications and financial aid processes, ACT/SAT test preparation, guidance on what to expect in college classes and campus life, and generally enhanced students' understanding of the college environment.

All interviewees who engaged in bridge programs expressed how beneficial these experiences were. These programs not only provided them with valuable insights into what college life would entail, but they also instilled a belief that pursuing higher education was attainable. This overarching theme is underscored by the following sample of quotes from the interviewees:

> Decision to go to college. Like I said, team GEAR UP, that program, it really pushed me to want to go to college. Just seeing how much different college was in high school, really played a big role in why I wanted to do it. And then just my parents, they played a big role too because they didn't want me to live like them have having to live paycheck to paycheck, wondering what's the next meal going to be, if we're going to be able to have that or not? And they just wanted me to have better for my kids and have my kids have whatever they want (Interviewee #1).

> Yeah, College Possible. I joined my junior year, is supposed to help you with your SAT scores. So like, every week out of five days you'll have two days to try to study the SAT scores. I mean the SAT. Like we will have books on how to take the SAT for the math portion, the writing portion, the science portion, reading portion. So we were pretty much just nail those down and then they would give us practice SATs is like three of them. So we got the chance to do that. And then when the real SAT came, we would take that. And then they would was still give us like another free choice if we want to take it again. I didn't know anything about Financial Aid. They helped us clear, they helped us do our FASFA, signed up for grants, and helped us with pretty much our application, because I didn't know how to do college applications either (Interviewee #1).

Theme 2: The Institution's Path and Spaces

Financial, geographic, and family/community paths to UWX, campus students describe as both familiar and alienating because of the lack of African American students and visible culture, stereotypes of African Americans, and implicit and explicit discrimination.

A notable portion of the students we interviewed expressed a strong inclination toward attending Historically Black Colleges or Universities (HBCUs) during their high school years. Many of them had been introduced to HBCU campuses through bridge programs, and they were drawn to these institutions due to their substantial African American student populations. However, the financial constraints associated with out-of-state college attendance or familial obligations compelled them to opt for state schools. One student candidly shared, "The financial reality hit me. I didn't want to put my family in a situation where they were under financial pressure." Among the participants in our study, a majority chose UWX for its convenient, yet not overly close proximity to their hometowns. The affordability of tuition and UWX's notable reputation within the African American community were also pivotal factors influencing their decision. Additionally, some students mentioned their personal connections to UWX, such as family members or friends who had attended or were currently attending the university. Interestingly, a few participants emphasized that only a limited number of state universities offered a substantial presence of

African American students, with UWX being among those select few.

Despite this sense of familiarity, numerous students conveyed that navigating UWX's campus proved to be a challenge due to the limited presence of African American peers and the predominance of White students, constituting over 80% of the student body. Instances like receiving excessive attention or being stared at in public spaces on campus, such as during walks to lunch, in dorm hallways, or within classrooms, were reported by interviewees as indicative of the scarcity of African American students at

UWX. One student interviewee poignantly remarked, "It's like people are touching their eyes on you." Several students recounted their experiences of being the sole African American student amidst a predominantly White class, highlighting the resulting disconnection they felt from peers with differing interests and perspectives. One student articulated, "There's a lot of stuff that African Americans don't care about that the White people on the campus do. I don't really blame Black students for not going to a pumpkin-carving fest." Beyond the challenges stemming from underrepresentation, nearly all African American interviewees shared encounters with more overt instances of discrimination, including microaggressions and stereotyping. This overarching theme is underscored by the following sample of quotes from the interviewees:

> There was no doubt in my mind that I was going to go to college. It was always a goal or a path that I had been brought up to do, even though my parents loved my -- mom, she didn't get her -- she did get a certificate, but that was -- she just got that a year or two ago. So, there was no real college background within my parents, but yet they raised us to go to college. That was their goals for me and my siblings, so it was always a path for me. It was never -- it was never something I felt forced into though. It was just where I had seen myself going. It was the next step in my life after high school (Interviewee #15).

> My brother and my sister, they both went to college -- but they didn't graduate. Like my brother went for like a semester and didn't like it. My sister, she just stopped going, I don't know why. But then my family, like my cousins and all of them, they went to college. But the thing is my family, they live out in like the suburban areas, they don't live in Milwaukee. This is my white side of the family (Interviewee #1).

> I don't know if you remember, but again, my freshman year, we had this whole blackface situation. I mean, it reached the news. I think it reached almost national news and things like that. And I think when it gets big, when it's something that could damage the reputation of [UWX], then that's when they all want to always take two steps to take things better together. But then after the hype dies down, it's just like nothing changes. I don't notice anything, criteria wise, that changes. I'm constantly questioning. Since I just I have a lot of cultural and historical classes and I always have to challenge my professors on their criteria and why they choose to showcase more history of certain civilizations than others. Because all of that contributes to the racial climate that we have today…(Interviewee #10).

Theme 3: African American Community

UWX-specific social and cultural interactions and spaces in which African American students can be comfortable and successful, including mentorship relationships, living and study communities, and student organizations.

Students also highlighted positive encounters on campus that served to mitigate this stress. Frequently, these experiences were characterized as opportunities to engage with other African American peers or mentors in environments that felt safer and more representative, forming what we refer to as the "African American community" theme. For numerous interviewees, the sight of another African American student on campus generated a profound sense of camaraderie. As one student eloquently expressed, "You just feel like this little thump in your heart, like, oh my god, there's another one of me!" Further enhancing this sense of belonging were initiatives such as first-year experiences and cohorts, diverse living communities, and institutional support services like the African American Network. Additionally, a range of African American student organizations, including the This One's for Us (TIFU)

Cultural Ensemble, Ignite-Impact (an African American religious organization), student networks like Brother to Brother and Sister to Sister Mentors, the Black and Mixed-Race Student Unions, the National Association of Black Accountants, and various sororities and fraternities, provided platforms for students to connect more readily with UWX's African American community.

Faculty and staff mentors on campus played a pivotal role for African American students, offering essential encouragement, support, and guidance, and fostering a stronger connection to university resources and academic life, thereby integrating them more fully into the university fabric. Particularly noteworthy were mentors who not only comprehended the complexities that rendered campus life challenging for African Americans but also displayed genuine empathy, treating them as individuals rather than perpetuating stereotypes or caricatures. One student recounted a teacher with whom she felt authentically herself, a novel experience on campus. "I appreciate that he allowed me to express my thoughts," she shared. "It was a very liberating experience to not have to limit myself." Another student related how his mentor possessed a profound understanding of his cultural context, making him feel that "there is a place on campus for us."

These mentors, it seemed, had the power to unlock opportunities while simultaneously reinforcing the sense of African American community on campus. When discussing the kind of mentorship that had the most positive impact, a student highlighted the importance of "staff who listen and actively try to create more spaces." They acknowledged that some mentors, unacquainted with the experiences of Black individuals, could struggle to offer meaningful support. While the broader campus community might at times appear distant to African American students, the acceptance and insight offered by such mentors proved to be a powerful motivator, instilling a renewed sense of purpose and drive. This overarching theme is underscored by the following sample of quotes from the interviewees:

> Yeah. So I was part of the learning community called Man of Excellence. So that's one of minorities, like African-Americans. So my first year, we all pretty much had like almost the same schedule. So I didn't really have to worry about being the only Black person in my class because we had like eight other Black people that had pretty much the same schedule as me. And then we pretty much worked all together in every class to make sure we was successful in it. So it really wasn't that hard (Interviewee #1).

> Well, that's another thing. I do feel like we kind of have a sense of inclusion too much. Like we love the WCC, the connection. I call that the Colored Convention Center, because

> where all the, you know, peoples of color mainly hang out, especially African Americans, and I know that's where a lot of organizations are (Interviewee #10).
>
> So, Women of Excellence is, sadly is discontinued. I don't believe it's going on anymore. But it was a group -- it was basically a minorities women's group. There was also Men of Excellence. For Women of Excellence, we basically set up our schedules together. We was in the same living arrangements. We had one -- I think we had one or two, it might have been two personal classes where we all had it together, and it was just a kind of a support system on campus to have your peers around you, your different mentors. They also were telling you about the different stuff that's happening on campus, the different stuff that may benefit you or help you or aid you and that you need. So, it was kind of like a nice room -- oh, it was a nice support system, especially coming in as a freshman (Interviewee #15).

Discussion

This study utilized qualitative research methods to examine the experiences of African American college students in a PWI located in rural southeastern Wisconsin. The study concentrated on their preparation for high school, college, and career paths. This investigation validates several factors previously identified in research that impact the educational and career trajectories of African American students in PWIs. These factors encompass one's family background, connections to the community, participation in high school transition programs, engagement with student organizations and mentors during college, and the significance of establishing a sense of belonging on the institution's campus (e.g., Griffith et al., 2019; Monjaras-Gaytan & Sánchez, 2023; Parks-Yancy, 2012). The research was conducted by student researchers, empowering them to advocate for policy changes that would benefit both themselves and their peers within their own communities. The use of student researchers proved to be beneficial as they provided a unique lens to examine and understand some of the latent factors that impact the academic and career experiences of African American students. Through this lens and the rapport established between the student researchers and interviewees, deeper insight into the systemic obstacles, bouts with institutional inequity, and other "hidden" factors at play were elucidated.

Research efforts have paved the way to uncover and dismantle systemic obstacles hindering equitable transitions of African American students from college to career. However, in the context of PWIs, earlier studies have highlighted the importance of physical and social environments, where African American students can freely express themselves without facing unjust judgment or scrutiny (e.g., Harwood et al., 2018). It is for this reason that having "safe" and/or "brave" spaces for students identifying as racial minorities and for African American students in particular is important (Boostrom, 1998; Lopez-Littleton, 2016). Often, African American student clubs, groups, or registered student organizations serve as crucial platforms for social support and validation, contributing significantly to the sense of social and academic belonging among African American students attending PWIs (e.g., Museus, 2008; Tichavakunda, 2020). Our study's participants echoed sentiments consistent with prior research findings. However, there has been an overreliance on these student organizations, and more intentional efforts should be made by educational institutions to create space for minority students at both the high school and collegiate levels.

Within the realms of high school and college education, faculty and staff mentors have emerged as pivotal sources for advice, information, and support in all contexts of the word.

The access to information and support underscores and reinforces the premise of SNT discussed earlier that undergirds this study. By the students making connections (or ties) with their peers, faculty, and staff within their institution, they were provided with access to new information (e.g., scholarship or financial aid information), support groups through student organizations, and mentors, and other pivotal resources that shape their educational (academic and career) experiences that they may not have known about otherwise. These relationships (i.e., strong and weak ties) helped students not only circumnavigate the nuances of the educational environment but, more importantly, enabled them to foster a sense of belonging that places them in an advantageous position as African American students to succeed in their terms (Griffith et al., 2019). Additionally, it equips them with insights into employment, thus enhancing their post-college career paths (Parks-Yancy, 2012). Building upon this foundation, scholars and practitioners who emphasize the cultural and social dimensions of career identity development and decision-making underscore various critical strategies to promote career growth among Black college students (Abdi, 2021; Byars-Winston et al., 2023; Parks-Yancy, 2012). These strategies encompass recognizing racial discrimination and Black resilience, nurturing strong family and campus social ties, and fostering Black self-authorship (Storlie et al., 2018). Although existing research has shown that the latter can be nurtured through college and career narratives that allow students to articulate their development journeys, minimal attention has been given to exploring the significance that African American students attribute to these narratives within PWIs. Furthermore, few studies have actively involved African American students in the research process.

Conclusion

To conclude, while acknowledging that more work remains, the research team contends that these findings suggest a series of measures that can be implemented to cultivate an environment conducive to the type of self-authorship crucial for the engagement and success of marginalized students on college campuses. It is evident through this study that the academic and career experiences of minority students, especially African American students attending PWIs, are largely influenced by the type of connections or ties they can make within the environment. Doing so affords them the space to find a community of support and, consequently, obtain a sense of belonging in an environment where they are underrepresented in many facets. Without such support, the narrative of the African American experience at PWIs seems to be a somber one of social isolation compounded by less-than-pleasant academic experiences, which can ultimately impact the career experiences of these students and discourage them from pursuing education. These types of institutional climates do not add to or benefit inclusion and defeat the purpose of bridge programs which aid students in overcoming certain educational obstacles. Therefore, it is up to institutional leadership to become more cognizant of the experiences of minority students and begin implementing changes at the meso- and macro-levels within their institutions. These institutions have a charge to deliver a quality education to ALL students and as such, should make intentional improvements to help alleviate certain obstacles minority students tend to encounter. It is imperative that this onus not be shifted to or placed upon the students - they are there to learn, and as young seedlings, they should not be forced nor expected to “survive” in an environment that lacks adequate watering or space for them to germinate into successful members of society.

Limitations

The limitation section of the article highlights two key constraints of the project: the small sample size and the single-site data collection. Specifically, only 14 students participated in the interviews, which may not fully capture the diversity of experiences among African American students in higher education. Additionally, data were collected solely from one university campus, limiting the generalizability of the results to other settings. To address these limitations, future research should aim to include a larger and more diverse sample of participants from multiple institutions and geographical regions. This would enhance the representativeness of the findings and allow for a more comprehensive understanding of the experiences of African American students in higher education.

Implications and Future Research

To guide Institutions of Higher Education (IHE) and their leadership in taking the necessary steps to promote equity in their organizations that are informed upon the experiences of African American students, strong consideration of the following recommendations should occur. The first recommendation is for IHEs to provide and strongly encourage faculty/staff to participate in training related to working with racially and culturally diverse students. This training should be provided in different modalities and attendance must be supported and encouraged by department chairs and supervisors. The second recommendation is for IHEs to consider providing a platform for intentional mentorship by faculty/staff for African American students. This could include providing meal passes for the dining halls or local coffee shops, hosting mentor/mentee matching social events on campus, and allowing faculty/staff to "claim" mentorship activities as university service towards promotion/tenure reviews. The third recommendation is for IHEs, specifically PWIs, to work diligently to attract, hire, and retain diverse faculty and staff. This recommendation would be put into action by requiring the hiring committee to take consciousness bias training, creating inclusive position descriptions, and providing professional mentorship, and implementing researched based retention strategies.

Given the exploratory nature of this study and its focus on African American student experiences, future research may benefit from understanding the experiences of other minority students to ascertain if there are any similarities or differences between their experiences and, if so, in what areas. Longitudinal studies may be conducted to track the long-term academic and career outcomes of African American students who participated in bridge programs and other preparatory initiatives. This could provide deeper insights into the effectiveness and lasting impacts of these programs. Finally, comparative studies across different types of institutions (e.g., HBCUs vs. PWIs) to understand how the cultural and social environment impacts African American students. This could help identify best practices for fostering inclusive and supportive campus climates.

Declarations

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References

Abdi Z. S. (2021). Predicting occupational consideration by interest, self-efficacy, and outcome expectations in students. *Preventive Counseling, 1*(3), 50-60.

Adams, T. L., & McBrayer, J. S. (2020). The lived experiences of first-generation college students of color integrating into the institutional culture of a predominantly white institution. *The Qualitative Report, 25*(3), 733-757.

Alvarez, A., Blume, A., Cervantes, J., & Thomas, L. (2009). Tapping the wisdom tradition: Essential elements to mentoring students of color. *Professional Psychology: Research and Practice, 40*(2), 181–188.

Basha, R. (March 2016). Students and law enforcement talk race relations at policing forum. *The Michigan Daily*. Retrieved 1 November, 2023 from https://www.michigandaily.com/news/students-and-law-enforcement-come-together-policing-forum/

Benbow, R., Toms, O., Arman, L., Chughtai, M., Pasqualone, A., Vivona, B., & Wolfgram, M. (2020). *Engaging college students of color in higher education policy studies and advocacy*. Retrieved 21 December, 2023 from https://ccwt.wisc.edu/wp-content/uploads/2022/04/ccwt_report_Engaging-college-students-of-color-in-higher-education-policy-studies-and-advocacy.pdf

Boostrom, R. (1998). "Safe space": Reflections on an educational metaphor. *Journal of Curriculum Studies, 30*(4), 397–408. https://doi.org/10.1080/002202798183549

Brass, D. J. (1984). A structural analysis of individual influence in an organization. *Administrative Science Quarterly, 29*(4), 518-539.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77-101. https://doi.org/10.1191/1478088706qp063oa

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77-101. https://doi.org/10.1191/1478088706qp063oa

Burt, R. S. (1992). *Structural holes: The social structure of competition.* Harvard University Press.

Byars-Winston, A., Rogers, J. G., Thayer-Hart, N., Black, S., Branchaw, J., & Pfund, C. (2023). A randomized controlled trial of an intervention to increase cultural diversity awareness of research mentors of undergraduate students. *Science Advances, 9*(21), 1-11.

Coleman, J. S. (1988). Social capital in the creation of human capital. *American Journal of Sociology, 94*, 95-120.

Cote, R. (2019). The evolution of social network theory: Perceived impact on developing networking relationships. *American Journal of Management, 19*(3), 19-34.

Deng, X., Fernández, Y., & Zhao, M. (2022). Social media use by first-generation college students and two forms of social capital: A revealed causal mapping approach. *Information Technology & People, 35*(1), 344-366.

Gooden, S., Evans, L., & Pang, Y. (2018). Making the invisible in nonprofit courses: A case study of African American-led nonprofits. *Journal of Public Affairs Education, 24*(4), 490-517. https://doi.org/10.1080/15236803.2018.1488485

Granovetter, M. S. (1973). The strength of weak ties. *American Journal of Sociology, 78*(6), 1360-1380.

Greer, T. M., & Chwalisz, K. (2007). Minority-related stressors and coping processes among African American college students. *Journal of College Student Development, 48*(4), 388-404.

Griffith, A. N., Hurd, N. M., & Hussain, S. B. (2019). "I didn't come to school for this": A qualitative examination of experiences with race-related stressors and coping responses among Black students attending a predominantly White institution. *Journal of Adolescent Research, 34*(2), 115-139.

Harwood, S. A., Huntt, M. B., Mendenhall, R., & Lewis, J. A. (2012). Racial microaggressions in the residence halls: Experiences of students of color at a predominantly White university. *Journal of Diversity in Higher Education, 5*(3), 159-173.

Harwood, S. A., Mendenhall, R., Lee, S. S., Riopelle, C., & Huntt, M. B. (2018). Everyday racism in integrated spaces: Mapping the experiences of students of color at a diversifying predominantly white institution. *Annals of the American Association of Geographers, 108*(5), 1245-1259.

Jama, P. M., Beylefeld, A. A., & Monnapula-Mapesela, M. (2009). Theoretical perspectives on factors affecting the academic performance of students. *South African Journal of Higher Education, 22*(5), 992-1005.

Law, K. L., Guthrie, D., Beaver, B. R., Johnson, S. M., Parys, J., & Toms, O. M. (2019). Faculty and staff perceptions of undergraduate mentoring. *Mentoring & Tutoring: Partnerships in Learning, 27*(4), 399-415. https://doi.org/10.1080/13611267.2019.1649918

Lopez-Littleton, V. (2016). Critical dialogue and discussions of race in the Public Administration classroom. *Administrative Theory & Praxis, 38*(4), 285-295.

Lopez-Littleton, V., Blessett, B., & Burr, J. (2018). Advancing social justice and racial equity in the public sector. *Journal of Public Affairs Education, 24*(4), 449-468. https://doi.org/10.1080/15236803.2018.1490546

Maldonado, V. M. (2022). *Influence of the Upward Bound Program on select low-income, first-generation college students' aspirations to enroll in postsecondary education* (Unpublished doctoral dissertation). Sam Houston State University, Huntsville, TX.

Merriam, S. B., & Tisdell, E. J. (2016). *Qualitative research: A guide to design and implementation.* John Wiley & Sons.

Mills, K. J. (2020). "It's systemic": Environmental racial microaggressions experienced by Black undergraduates at a predominantly White institution. *Journal of Diversity in Higher Education, 13*(1), 44-55.

Monjaras-Gaytan, L. Y., & Sánchez, B. (2023). Historically underrepresented college students and natural mentoring relationships: A systematic review. *Children and Youth Services Review, 149*, 1–9. https://doi.org/10.1016/j.childyouth.2023.106965

Museus, S. D. (2008). The role of ethnic student organizations in fostering African American and Asian American students' cultural adjustment and membership at predominantly White institutions. *Journal of College Student Development, 49*(6), 568-586.

Newkirk, D. (2022). *Parenting and the academic success of Black males: A qualitative study.* (Unpublished doctoral dissertation). Capella University, Minneapolis, MN.

Offidani-Bertrand, C., Velez, G., Benz, C., & Keels, M. (2022). "I wasn't expecting it": High school experiences and navigating belonging in the transition to college. *Emerging Adulthood, 10*(1), 212-224.

Parks-Yancy, R. (2012). Interactions into opportunities: Career management for low-income, first-generation African American college students. *Journal of College Student Development, 53*(4), 510-523.

Rozek, C. S., & Gaither, S. E. (2020). Not quite white or black: Biracial students' perceptions of threat and belonging across school contexts. *The Journal of Early Adolescence.* https://doi.org/10.1177/0272431620950476

Saldaña, J. (2015). *The coding manual for qualitative researchers.* Sage.

Storlie, C. A., Hilton, T. L., Duenyas, D., Archer, R., & Glavin, K. (2018). Career narratives of African American female college students: Insights for college counselors. *Journal of College Counseling, 21*(1), 29-42.

Strayhorn, T. L. (2011). Bridging the pipeline: Increasing underrepresented students' preparation for college through a summer bridge program. *American Behavioral Scientist, 55*(2), 142-159.

Tichavakunda, A. A. (2020). Studying Black student life on campus: Toward a theory of Black placemaking in higher education. *Urban Education, 59*(1), 96-123. https://doi.org/10.1177/0042085920971354

U.S. Department of Education, National Center for Education Statistics. (2019). *Digest of education statistics.* Retrieved 4 November, 2023 from https://nces.ed.gov/programs/coe/indicator_cpb.asp and https://nces.ed.gov/programs/digest/d19/tables/dt19_326.15.asp?current.asp

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Article

An analysis of gender differences in industry-based certification attainment rates of Texas high school graduates

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Abstract

In this statewide, multiyear study, industry-based certification attainment rates were examined by gender for Texas high school graduates. Industry-based certifications included in the study were vetted by the Texas Education Agency and reported through the Texas Academic Performance Reports for the 2019-2020, 2020-2021, and 2021-2022 school years. Inferential analyses revealed statistically significant differences in industry-based certification attainment rates for each of the three school years of data analyzed. Both boys and girls demonstrated increases in certification attainment across the years analyzed; however, the attainment rate of Texas male high school graduates increased at a faster rate than the attainment rate of Texas female high school graduates. Differences in attainment rates and associated attainment gaps between male and female graduates are presented for each of the three school years of data analyzed, as well as recommendations for future research.

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Introduction

Academic performance differences between boys and girls have been well documented in previous research (e.g., Burillo, 2012; Combs et al., 2010; Johnson, 2020). Combs et al. (2010) analyzed the extent to which gender differences were present in reading, mathematics, and both subjects of college readiness of Texas high school students. They also addressed gender differences in SAT and ACT performance for the 2005-2006 and 2006-2007 school years. The study was important in that the researchers noted that post-high school education was directly related to wage earnings and, on a broader scale, contributed to the health of the nation. Combs et al. (2010) established that girls had higher college readiness rates than boys in reading and boys had higher college readiness rates than girls in mathematics. Overall, only 31.11% of boys and girls combined were identified to be college ready in both subjects. In regard to SAT and ACT performance, Combs et al. (2010) determined that boys had higher SAT scores than girls for both years studied, but girls had slightly higher ACT scores over the same school years.

In a study conducted in Texas, the state of interest for this article, Johnson (2020) examined archival data obtained from the Texas Education Agency to determine whether differences were present in college, career, and military readiness by gender for the 2017-2018 and 2018-2019 school years. The degree to which the proportion of college, career, and military readiness differed for all students to college, career, and military readiness separately for boys and for

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girls was addressed. Statistically significant differences were not evident for the 2017-2018 school year, but statistically significant differences were present for the 2018-2019 school year. Recommendations to school leaders included efforts to implement college, career, and military readiness programs that aligned with the interests of boys and girls, with effort placed on programmatic offerings designed to close gender gaps (Johnson, 2020).

In a separate study completed by Burillo (2012), demographic trends of Texas community college students seeking to earn a form of industry certification termed Marketable Skills Achievement Awards were examined. The Marketable Skills Achievement Award certificates were based on entry-level industry skills, and the study included an analysis of certification attainment by gender from 2004 to 2010. Burillo (2012) documented that the number of female students obtaining certifications increased from 1,088 in 2004 to 1,743 in 2010, whereas the number of male students obtaining certificates increased from 1,037 in 2004 to 2,223 in 2010. Although female students had a visible increase in certification attainment, attainment rates between 2004 and 2010 were not statistically significant. In contrast, attainment rates for male students during the same time period did result in a statistically significant difference (Burillo, 2012). Also identified in the research were that attainment rates of females compared to males aligned with collegiate enrollment trends in that males were outpacing females in enrollment rates. Overall recommendations included the continuation of Marketable Skills Achievement programs in community colleges, as attainment rates for both males and females were documented to have increased over the years of data analyzed in the investigation, thus providing students with evidence of skill attainment that could be of interest to future employers (Burillo, 2012).

Career and Technical Education (CTE) programs offered in the secondary grade levels, as early as Grade 7, combine curricular knowledge with technical skills for the purpose of preparing students for entry into the workforce (Texas Education Agency, n.d.). Although not as widely addressed as gender differences in academic performance in the core content areas, research investigations have been conducted on enrollment statistics in CTE programs. Fluhr et al. (2017) explored CTE course enrollment patterns. Presented in the study was that boys were 1.28 times more likely to take gender-nontraditional courses in high school than girls. However, Fluhr et al. (2017) determined that females were overrepresented in certain fields, such as Health Sciences and Human Services (traditionally female dominated fields), whereas males comprised the majority of STEM, Manufacturing, and Construction (traditionally male dominated fields). Interestingly, in the same study, Fluhr et al. (2017) also identified that wage earnings could be better predicted by the career field chosen rather than by gender.

Leu and Arbeit (2020) also investigated demographic trends in fields of study within high school CTE programs. The data analyzed in the research were obtained from two larger national studies that included more than 20,000 high school participants. Leu and Arbeit (2020) noted that male students had a larger proportion of enrollment in CTE programs than female students. A cross-section analysis of enrollment revealed that male students were overrepresented in Agriculture, Architecture, Manufacturing, and STEM pathways, whereas female students were overrepresented in Arts, Health, Hospitality, and Human Services, findings that aligned with previous research (Fluhr et al., 2017).

In a study of North Carolina high schools, Casto and Williams III (2020) acknowledged that STEM fields had historically been represented by White males, an observation that aligned

with research completed by Fluhr et al. (2017). To evaluate this finding, Casto and Williams III (2020) compared gender enrollment statistics in STEM high schools to gender enrollment statistics in the STEM high schools' parent school district. Gender in STEM high school enrollment was generally proportional to the gender composition of the school district where the STEM high school was located. Unique observations were reported in two high schools, where the proportion of boys enrolled in the STEM high school was larger than the enrollment of girls. In contrast, one STEM high school was comprised of a majority of female students (Casto & Williams III, 2020). The findings of Casto and Williams III (2020) were similar to Fluhr et al.'s (2017) findings, in that although previous researchers may have documented that male students dominated CTE and STEM enrollment historically, evolving trends indicate that enrollment based on gender is becoming more equalized and traditional enrollment patterns are not as clearly evident.

Yoon and Strobel (2017) further addressed high school enrollment rates in STEM graduation pathways in Texas. Identified were that enrollment rates in Algebra 1, Geometry, and Biology consisted of a higher proportion of boys than girls. Because each course was required for graduation, the researchers suggested that girls had obtained the course credits while in middle school or through credit by exam. Yoon and Strobel (2017) also acknowledged that more female students were enrolled in advanced Biology courses, whereas more male students were enrolled in advanced physics, a trend that was also reflected in collegiate degree enrollment statistics. Because enrollment trends also included increasing enrollment rates by girls in advanced mathematics courses, such as AP Calculus AB and AP Statistics, it was suggested that enrollment statistics could be indicative of narrowing gender gaps in postsecondary STEM majors that have traditionally been dominated by male students. This conclusion was commensurate with the suggestions of Fluhr et al. (2017) and Casto and Williams III (2020).

Jiang (2017) examined gender differences in STEM fields and presented findings similar to Fluhr et al. (2017) and Leu and Arbeit (2020) that women obtained more than one half of the bachelor's degrees earned in biology, chemistry, and mathematics, but were substantially underrepresented in computer science, engineering, and physics. Jiang (2017) also cited the potential existence of certain norms and values that favored males as a contributing factor for lower female representation in otherwise male dominated career fields. Suggested as a contributing factor to the low representation of women in computer science, engineering, and physics was a lack of female role models within industry settings, in addition to a lack of exposure to course offerings prior to college enrollment. Jiang (2017) explained that a connection existed between states that required additional mathematics and science courses for high school graduation and increased enrollment in STEM programs at the collegiate level, a dynamic that paralleled the conclusions presented by Yoon and Strobel (2017).

Giani (2022) conducted a research investigation about industry-based certifications and concluded that the earning of such certifications had a positive relationship with wage earnings and did not deter students from postsecondary education. However, noted in the research was that industry-based certification offerings varied widely across Texas public high schools. Similar to the observation of designated courses required for high school graduation by previous researchers (i.e., Jiang, 2017; Yoon & Strobel, 2017), Giani (2022) identified that Texas included industry-based certifications in the state accountability system, thus contributing to a wide selection of offerings and ultimately leading to enhanced levels of

attainment. Decisions made at the local level were cited as the major contributing factor in obtaining industry-based certifications because the role schools play in promoting the attainment of such credentials was suggested to have a greater influence on attainment than any demographic factor (Giani, 2022). Further presented was that the acquisition of industry-based certifications by Texas high school graduates increased statewide from 2.7% in 2017 to 9.9% in 2019. Giani (2022) concluded that earning an industry-based certification contributed to as much as a 10% increase in first-year wage earnings when compared to individuals who did not earn an industry-based certification, regardless of ethnicity/race, gender, or economic status.

Researchers (e.g., Combs et al., 2010) have established that education is directly related to wage earnings, thus contributing to the economic health of the nation. Although significant differences in college, career, and military readiness have been marginal, researchers (e.g., Leu & Arbeit, 2020) have presented evidence that enrollment in CTE programs was more prevalent among male students than among female students. Cross-section analysis of CTE programs has further revealed that female students were overrepresented in programs such as Health, Hospitality, and Human Services, while male students were overrepresented in Architecture, Manufacturing, and STEM fields (Leu & Arbeit, 2020). Disparities in enrollment by gender in CTE programs align with research studies conducted on gender makeup in career settings, where male students were identified to earn degrees in science and engineering at higher rates than female students (Jiang, 2017). Because supplying skilled labor to the American workforce has a direct relationship to the economic welfare of the country, it is imperative that educational institutions make instructional decisions that promote the attainment of skills demanded by industry for all students, regardless of gender. However, after an extensive and intensive search of the existing research literature, no published studies could be located about industry-based certification attainment by gender in Texas public schools. Therefore, this research study will add to the literature on industry-based certification attainment by gender.

Statement of the Problem

The United States has continued to fall behind competing countries in postsecondary achievement despite the implementation of policies at the state and federal levels designed to increase student performance (Davis et al., 2013). Student success in academic settings is a critical component required to supply the workforce with skilled labor. Holman et al. (2017) noted that well-planned CTE programs can prepare high school students for successful careers following high school, thus meeting the needs of the individual and industry.

The skills determined by industry leaders to be in the highest demand are critical thinking, reasoning, and complex problem solving (Li, 2022, 4.1). Students who gain a deeper understanding of content develop the ability to apply critical thinking skills and knowledge to a broader context of problems (Conley, 2008). Bühler et al. (2022) identified that skills and content knowledge essential to the workforce can be developed in a technology-rich learning environment. To meet the growing needs of industry, AlMalki and Durugbo (2023) suggested that industry, government, and education work in collaboration to develop aligned learning opportunities for students. One such example of alignment between the three entities is the integration of industry-based certifications in the teaching-learning environment. Industry-based certifications are a form of microcredential offered to Texas public school students. Attainment of industry-based certifications can provide prospective employers with evidence

that students have gained specific skill sets demanded by the industry. Analysis of attainment rates is critical to making informed implementation decisions at the campus level. Potential disproportionality in attainment rates by gender is of particular interest because such information can be used to adjust course offerings, promote career fields, and make industry-based certifications available in the K-12 setting.

Purpose and Significance of the Study

The purpose of this study was to ascertain the extent to which gender differences existed in attainment rates of industry-based certifications. This analysis included a comparison of industry-based certifications earned by boys to the industry-based certifications earned by girls across multiple school years. Data sets included in the study were made available by the Texas Education Agency through the Texas Academic Performance Report and are from the 2019-2020, 2020-2021, and 2021-2022 school years. Included within the study was also a presentation of trends by gender across the same school years. Differences and trends are presented to the reader as a tool that can be used for programmatic justification and decision-making purposes.

Performance differences by gender have been of ongoing interest to researchers. Because the State of Texas implements a formal public school accountability system used to rate public school districts and each campus within the districts, components of the accountability system (e.g., STAAR results and college, career, and military readiness indicators) are available in a data format that can be used for statistical analysis. Academic performance in the core content areas (e.g., college readiness in reading and mathematics) has been of particular interest to researchers (e.g., Combs et al., 2010). However, a smaller body of research has been completed on the subcomponents of career readiness. Limited studies exclusive to industry-based certifications were located during this research. Specifically, Burillo (2012) analyzed demographic trends among community college students who earned a form of industry-based certification called Marketable Skills Achievement Awards. Additionally, in a policy update published by the University of Texas, Giani (2022) explored the fields of study associated with industry-based certification attainment across the State of Texas. However, no research studies exclusive to industry-based certification attainment by gender in Texas public schools could be located. Therefore, findings from this research investigation will add to an under studied component of the Texas Public School Accountability System.

Research Questions

The following research questions were addressed in this study: (a) What is the difference between high school boys and high school girls in the Texas Education Agency approved industry-based certification attainment rates of Texas high school graduates?; and (b) What trend is present in the Texas Education Agency approved industry-based certification attainment rates for high school boys and high school girls? The first research question was answered for the 2019-2020, 2020-2021, and 2021-2022 school years included in the study, whereas the second research question included all three years.

Method

Research Design

This study was a quantitative analysis of differences that existed in industry-based certification attainment by gender. The research design was a causal-comparative, non-experimental analysis (Johnson & Christensen, 2020) of the relationship between industry-based certification attainment by boys and girls. However, because historical data were analyzed, specific cause-effect relationships could not be determined, and generalizations could not be made (Johnson & Christensen, 2020). The independent variable in this study was the gender of the high school graduates, and the dependent variables were industry-based certifications earned. The data analyzed in this study were archival data made available by the Texas Education Agency.

Participants and Instrumentation

Students who graduated from comprehensive Texas public high schools during the 2018-2019, 2019-2020, and 2020-2021 school years and who earned an industry-based certification recognized by the Texas Education Agency were the participants in this study. Data made publicly available through the Texas Academic Performance Reports for the 2019-2020, 2020-2021, and 2021-2022 school years served as the basis for statistical analyses. The Texas Education Agency (2022) includes industry-based certifications in the Texas Academic Performance Report one year after they are earned, representing a one-year lag in publication (e.g., industry-based certifications publicized in the 2021-2022 Texas Academic Performance Report were from the 2020-2021 graduating class).

Industry-based certification attainment rates for male high school graduates and female high school graduates were the specific variables that were analyzed. Attainment rates have been reported in the Texas Academic Performance Report and were calculated by dividing the number of graduates who earned an approved industry-based certification in a specific school year by the number of annual graduates for that same school year (Texas Education Agency, 2022).

Data Analysis

The underlying assumptions of dependent samples *t*-tests were checked prior to conducting inferential statistical analyses. It is noted that not all assumptions were met; however, Field (2018) maintains that the parametric dependent samples *t*-test is inherently robust to accommodate violations of the underlying assumptions. As such, the parametric dependent samples *t*-test was the statistical procedure chosen to analyze differences in industry-based certification attainment rates by gender.

To ascertain whether statistically significant differences in industry-based certification attainment rates were present by gender, data from the 2018-2019, 2019-2020, and 2020-2021 school years were analyzed. Industry-based certification attainment rates are reported in connection with student demographic characteristics; therefore, they are reported separately for boys and for girls. Accordingly, differences in industry-based certification attainment rates will be presented in the pairing of male Texas high school graduates and female Texas high school graduates.

Results

Results for Industry-Based Certification Attainment Rates by Gender

Regarding the 2018-2019 school year for the comparison of male and female Texas high school graduates, the difference was statistically significant, $t(1799) = 5.86$, $p < .001$. The effect size was less than small, Cohen's $d = 0.14$ (Cohen, 1988). Industry-based certification attainment rates were statistically significantly higher for male Texas high school graduates, 1.68% higher than they were for female Texas high school graduates.

Statistical analyses for the 2019-2020 school year revealed a statistically significant difference in industry-based certification attainment rates between male Texas high school graduates and female Texas high school graduates, $t(1822) = 9.09$, $p < .001$. The effect size was small, Cohen's $d = 0.21$ (Cohen, 1988). Male Texas high school graduates had a statistically significantly higher industry-based certification attainment rate, 2.92% higher, than female Texas high school graduates.

In reference to the 2020-2021 school year, a statistically significant difference was present for industry-based certification attainment rates between male Texas high school graduates and female Texas high school graduates, $t(1845) = 8.86$, $p < .001$, Cohen's $d = 0.21$, a small effect size (Cohen, 1988). Male Texas high school graduates had a statistically significantly higher industry-based certification attainment rate, 3.32% higher, than female Texas high school graduates. Descriptive statistics for industry-based certification attainment rates for male and female Texas high school graduates for the three school years are presented in Table 1.

Table 1. Descriptive statistics for Texas high school graduates who earned an industry-based certification

School Year and Comparison	*n* of schools	*M*%	*SD*%
2018-2019			
Male	1,800	9.46	15.38
Female	1,800	7.78	13.43
2019-2020			
Male	1,823	12.85	18.18
Female	1,823	9.93	15.60
2020-2021			
Male	1,846	19.71	23.07
Female	1,846	16.39	21.16

Note. The *n* in the table above denotes the number of high schools included in the study.

Discussion

This statewide, multiyear research study included analyses of industry-based certification attainment rates between male and female Texas high school graduates. The data analyzed in the study were collected by the Texas Education Agency and made publicly available through the 2019-2020, 2020-2021, and 2021-2022 Texas Academic Performance Reports. The independent variable for each analysis was gender, and the dependent variable was industry-based certifications earned. Individuals included in the study were graduates of comprehensive Texas public high schools who earned an industry-based certification during the 2018-2019, 2019-2020, or 2020-2021 school years.

For each of the three school years studied, male graduates had higher industry-based certification attainment rates than female students. In 2018-2019, the attainment rate for male Texas high school graduates was 9.46%, whereas the attainment rate for female Texas high school graduates was 7.78%. Although the difference in attainment rates for this school year was only 1.68%, the difference was statistically significant. Statistically significant differences were also present for the 2019-2020 and 2020-2021 school years. In 2019-2020, male graduates had a 12.85% industry-based certification attainment rate, whereas the rate for female graduates was 9.93%. For the 2020-2021 school year, male Texas high school graduates had a 19.71% industry-based certification attainment rate, while the attainment rate for female Texas high school graduates was 16.39%.

As previously noted, male Texas high school graduates had higher industry-based certification attainment rates than female graduates across the three school years of data analyzed. Of particular interest, as presented in Figure 1, was that the margin of difference in attainment rates between male and female graduates became larger across the years studied. The gap in attainment rates was 1.68% in 2018-2019 (with male students having the higher rate of attainment) and increased to a 3.32% difference in 2020-2021. With respect to each of the three school years of data analyzed, it is also important to note that industry-based certification attainment rates increased for both boys and girls. This trend is also presented in Figure 1.

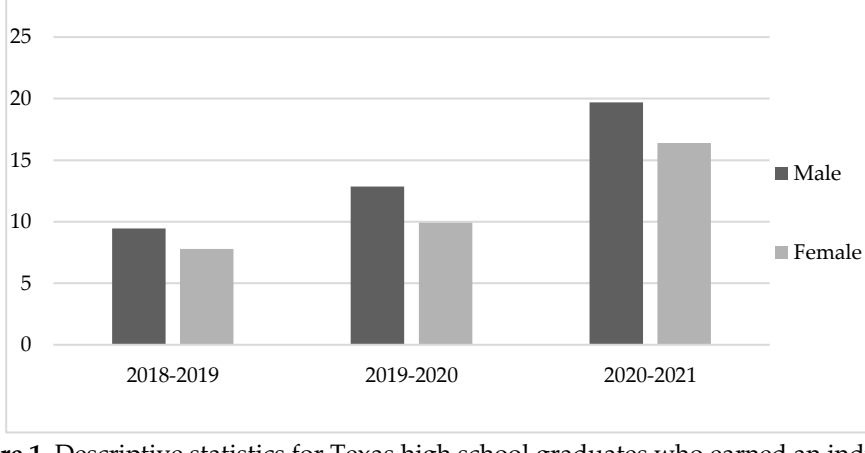

Figure 1. Descriptive statistics for Texas high school graduates who earned an industry-based certification

Results from the current study reflect that male Texas high school graduates earned industry-based certifications at a higher rate than female Texas high school graduates across the 2018-2019, 2019-2020, and 2020-2021 school years. This finding is congruent with research conducted by Burillo (2012), where boys had a higher rate of attainment of Marketable Skills Achievement Award certificates than girls. The results of the current study also align with observations presented by previous researchers (e.g., Casto & Williams III, 2020; Fluhr et al., 2017; Leu & Arbeit, 2020), where boys had higher enrollment rates in CTE and STEM related courses than girls. A final point of alignment is observed in the increase in industry-based certification attainment by both male and female graduates across the three years of data analyzed. This observation is commensurate with that of Giani (2022), who determined that industry-based certification attainment increased for all Texas high school graduates from 2017 to 2019.

Implications for Policy and for Practice

Multiple implications for policy and practice arise from the current research study. With respect to policy, foremost, Texas high school officials in the public K-12 setting must ensure robust course offerings are in place that provide students the opportunity to earn industry-based certifications. These courses must be sequenced as specified by the Texas Education Agency so that students gain the requisite knowledge to be well prepared for assessments associated with industry-based certification attainment. Similarly, campus and district program managers must monitor student enrollment within CTE programs to identify the gender ratio present in associated courses. Attention must be distributed to programs that are characterized by enrollment statistics that favor one gender over another – particularly programs comprised of a majority of boys. In such situations, program directors should implement educational opportunities designed to inform members of the opposite gender of the benefits of program enrollment, including the employment opportunities associated with gaining industry-based certifications.

From the financial aspect, campus and district administrators should monitor enrollment and completion statistics to ensure funds are maximized by supporting the continuation of programs that combine substantial enrollment with substantial program completion. Further, program directors must maintain awareness of evolving career fields and associated programmatic offerings to ensure students are competitively prepared to interview for entry-level career opportunities. Finally, legislative officials must ensure instructional mechanisms and funding systems are available that provide campus and district level staff the opportunity to offer robust career preparation programs.

The findings from this study were that participation in industry-based programs is dominated by male high school students. With jobs no longer being necessarily gender based and opportunities to earn an equitable income should exist for all, industry-based programs must be offered equally to male and female students. School leadership must be attuned to the current gender disparities and ensure all industry-based programs being offered are equitably and appropriately set up for female and male students. An additional role of school leadership is to ensure the counseling department shares industry-based certification opportunities equally to both genders. Our role as school leaders is to provide the most appropriate education to all students of both genders by providing coursework options that help them meet their high school goals as well as their post high-school goals.

Recommendations for Future Research

Multiple research opportunities exist as an extension of the current research investigation. As presented in previous research (e.g., Casto & Williams III, 2020; Fluhr et al., 2017; Leu & Arbeit, 2020), boys enroll in Career and Technical Education and STEM related courses at higher rates than female students. Therefore, the identification of Career and Technical Education and STEM programs offered in Texas public high schools, with specific analysis of the gender composition of students enrolled in those programs, would provide valuable insight for programmatic decision making. A second potential for research would be the analysis of the metrics met by girls who graduated with the Texas Education Agency designation of College, Career, or Military Ready. A final research area would be to extend the current analysis beyond three school years. A larger sample of school years would provide an opportunity to further analyze trends in industry-based certification attainment. Although statistically

significant differences were revealed in this article with respect to industry-based certification attainment rates between male and female Texas high school graduates, the margin of difference was relatively small – however, the gap in attainment rate grew across the three school years studied. Analysis of additional school years will reveal if this trend continues or if gaps in attainment begin to close, similar to the dynamics presented by Casto and Williams III (2020) and Fluhr et al. (2017).

Conclusion

This statewide, multiyear study included analyses of industry-based certification attainment rates between male Texas high school graduates and female Texas high school graduates for the 2018-2019, 2019-2020, and 2020-2021 school years. Statistically significant differences were present in attainment rates for each of the three years of data analyzed, with male students earning certifications at a higher rate than female students. The number of industry-based certifications increased annually from 2018-2019 through 2020-2021. Male Texas high school graduates had a 10.25% increase in certification attainment across the three-year time period, whereas female students had an 8.61% increase. Attainment rate differences were relatively small; however, because male Texas high school graduates earned certifications at a higher rate than female graduates, the gap in attainment widened from 1.68% in 2018-2019 to 3.32% in 2020-2021.

Declarations

Acknowledgments: Not applicable.

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References

AlMalki, H. A., & Durugbo, C. M. (2023). Evaluating critical institutional factors of Industry 4.0 for education reform. *Technological Forecasting & Social Change, 188*(2023), 1-13. https://doi.org/10.1016/j.techfore.2023.122327

Bühler, M. M., Jelinek, T., & Nübel, K. (2022). Training and preparing tomorrow's workforce for the fourth industrial revolution. *Education Sciences, 12*(782), 1-28. https://doi.org/10.3390/educsci12110782

Burillo, M. (2012). *Marketable skills achievement awards certificate completer trends by ethnicity and gender at Texas community colleges* (Unpublished doctoral dissertation). Sam Houston State University, Huntsville, TX.

Casto, A. R. & Williams III, J. A. (2020). Seeking proportionality in the North Carolina STEM pipeline. *The High School Journal, 103*(2), 77-98. https://www.jstor.org/stable/26986615

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Lawrence Erbaum.

Combs, J. P., Slate, J. R., Moore, G. W., Bustamante, R. M., Onwuegbuzie, A. J., & Edmonson, S. L. (2010). Gender differences in college preparedness: A statewide study. *Urban Review, 42*, 441-457. https://doi.org/10.1007/s11256-009-0138-x

Conley, D. T. (2008). Rethinking college-readiness. *New England Journal of Higher Education, 22*(5), 24-26. https://files.eric.ed.gov/fulltext/EJ794245.pdf

Davis, C. M., Slate, J. R., Moore, G. W., & Barnes, W. (2013). College readiness and Black student performance: Disaffirmed equity. *The Online Journal of New Horizons in Education, 3*(4), 23-44.

Field, A. (2018). *Discovering statistics using SPSS* (5th ed.). Sage.

Fluhr, S. A., Choi, N., Herd, A., Woo, H., & Alagaraja, M. (2017). Gender, career and technical education (CTE) nontraditional coursetaking, and wage gap. *The High School Journal, 100*(3), 166-182. https://www.jstor.org/stable/90024210

Giani, M. (2022). Certified skills: Who earns industry-based certifications in high school, and how do they shape students' postsecondary education and employment outcomes? *The University of Texas at Austin: Texas Education*, 1-7. Retrieved 19 January, 2024 from https://texaserc.utexas.edu/wp-content/uploads/2022/04/141-UTA148-Brief-Certifications-4.6.22-REV.pdf

Holman, A. G., Kupczynski, L., Mundy, M-A., & Williams, R. H. (2017). CTE students' perceptions of preparedness for post-secondary opportunities. *The CTE Journal, 5*(2), 8-23.

Jiang, L. (2017). Why are some STEM fields more gender balanced than others? *Psychological Bulletin, 143*(1), 1-35. http://dx.doi.org/10.1037/bul0000052

Johnson, R. B., & Christensen, L. (2020). *Educational research: Quantitative, qualitative, and mixed methods approaches* (7th ed.). Sage.

Johnson, T. (2020). *Comparison of proportion of Texas campus college, career, and military readiness of all students to the proportion of Texas campus college, career, and military readiness by ethnicity/race, gender, and economic status: A Texas statewide study* (Unpublished doctoral dissertation). Sam Houston State University, Huntsville, TX.

Leu, K. B., & Arbeit, C. A. (2020). Differences in high school CTE coursetaking by gender and race/ethnicity. *Career and Technical Education Research, 45*(1), 33-61. https://doi.org/10.5328/cter45.1.33

Li, L. (2022). Reskilling and upskilling the future-ready workforce for industry 4.0 and beyond. *Information Systems Frontier: A Journal of Research and Innovation,* 1-16. https://doi.org/10.1007/s10796-022-10308-y

Texas Education Agency. (2022). *2021-22 Texas academic performance report (TAPR) glossary*. Retrieved 3 February, 2024 from https://rptsvr1.tea.texas.gov/perfreport/tapr/2022/glossary.pdf

Texas Education Agency. (n.d.). *Career and technical education.* https://tea.texas.gov/academics/college-career-and-military-prep/career-and-technical-education

Yoon, S. Y., & Strobel, J. (2017). Trends in Texas high school student enrollment in mathematics, science, and CTE-STEM courses. *Journal of STEM Education, 4*(9), 1-23. https://doi.org/10.1186/s40594-017-0063-6

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Article

Preparing early educators for the current context of social emotional learning: A content analysis of course descriptions

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Abstract

Despite the well-established need for teacher preparation in child guidance and social emotional learning, studies have found a lack of robust course offerings in these areas. Further, the United States context for children's social emotional development is changing due to the global pandemic, racial unrest, and increased gun violence. The National Association for the Education of Young Children (NAEYC) has put forth updated teacher competencies to address the changing context as well as new research on early learning. However, little is known about how teacher education programs have implemented the updated guidelines around teacher competencies. For this journal article, we systematically examined 314 early childhood education programs of study from U.S. universities. We share a content analysis of 237 course descriptions from courses dedicated to children's social emotional learning. We found 26% of programs require no course on social emotional learning. We also identifed the four most and three least represented competencies around social emotional learning. Our content analysis reveals that behaviorist theory is predominant in the design of courses and sociocultural influences are under-represented. We provide implications for regularly updating course descriptions to address the needs of children and families in the ever-changing context of education.

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Guidance; management; early childhood; teacher preparation; coursework

Introduction

Gaining social and emotional skills is a main goal of early childhood. However, teachers in the United States report being under-prepared to support children exhibiting difficult behaviors (U.S. Department of Education, 2018). School discipline practices continue to disproportionately punish children of Color and children with disabilities (U.S. Department of Education, 2016), and rates of childhood anxiety and depression are increasing (Lebrun-Harris, et al., 2022). Further, the context of children's social and emotional learning is changing due to a global pandemic, increased gun violence in U.S. schools, and growing racial unrest. To keep up with the changing context of education and research in the field of children's social emotional learning, the National Association for the Education of Young Children published updated teacher competency guidelines in 2020. These ongoing factors warrant an evaluation of what theories and skills preservice teachers are being taught in their undergraduate early childhood education programs. Our search of the literature on child guidance and management course offerings found only two national studies of U.S. education programs,

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and each of these were surveys of program directors about what topics are taught and how often (Buettner et al., 2016; Flower et al., 2017). These two studies identified a lack of robust course offerings in child guidance and management. We seek to fill a gap in the literature with a systematic examination of the programs of study of U.S. institutes of higher education that offer bachelor's degrees in early childhood education and a content analysis of 237 course descriptions from courses dedicated to children's social emotional learning. Our purpose is to better understand how state universities in the U.S. conceptualize child guidance and management and present that conceptualization to the public and pre-service teachers.

The Importance of Social Emotional Learning in the Early Years

One of the main goals of early childhood (birth to age eight) is the attainment of social and emotional skills associated with self-regulation, emotional knowledge, and prosocial interactions (Friedman et al., 2021). Children's strong social emotional skills are positively associated with social and academic success in school (Denham & Brown, 2010). These social and emotional skills are developed through interactions with others in social settings including early childhood classrooms (Rakap et al., 2018). Early childhood educators have been found to have profound influence on the social emotional learning (SEL) of young children through explicit teaching of social and emotional skills (Ashdown & Bernard, 2012; Schonert-Reichl, 2017), the enactment of formal social curricula (Brownell & Parks, 2022; Hunter & Hemmeter, 2009; Soroko, 2016), and informal day-to-day interactions (DeVries & Van, 2012). Teachers who receive training on developing positive child-teacher relationships, supporting children's SEL, and navigating children's disruptive behaviors have been found to establish stronger relationships with their students (Haslip, 2018) and lead classrooms with lower levels of peer-to-peer and child-teacher conflict (Morris et al., 2013). Indeed, the 2010 and 2020 editions of the National Association for the Education of Young Children (NAEYC)'s *Professional Standards and Competencies for Early Childhood Educators* list "Understanding positive relationships and supportive interactions as the foundation of [educators'] work with young children" as key competency 4a.

Teacher Preparation to Support Social Emotional Learning

Despite the well-researched need for teacher preparation in child guidance and SEL, early childhood teacher education programs have been found to be inadequate in preparing teachers in these areas. In their survey of 175 university early childhood education program directors, Buettner et al. (2016) found the promotion of children's social and emotional development is often discussed in only one or several course sessions rather than having a full course dedicated to the topic. Similarly, in a survey of 72 undergraduate education program directors in one Southwest state, Flower et al. (2017) found only 62% of programs included "courses or experiences with a classroom or behavior management focus" (p.166). The lack of robust teacher preparation in the area of student SEL and guidance correlates with lack of skills and understanding among teachers. According to the U.S. Department of Education (2018), only 55.1% of early career public school teachers reported being well-prepared to handle a range of classroom management or discipline situations (p. 29, Appendix A).

Further, there are variations in the ways teacher preparation programs conceptualize courses on SEL and the social environment of early education settings, with some courses being framed as classroom or behavior management and others as child guidance (Thomas, 2019).

These variations reflect theoretical assumptions about the ways children learn social, emotional, and moral concepts and skills (DeVries & Zan, 2012; Gartrell, 1997). For decades, the National Association for the Education of Young Children has advocated for constructivist and sociocultural approaches to socio-moral and emotional education for young children in rejection of behaviorist approaches (Bredekamp, 1987; Carr & Boat, 2019; Gartrell, 1997). Constructivist and sociocultural approaches understand the learner as a co-creator of knowledge who learns through social interactions and is profoundly influenced by the cultural context (DeVries & Zan, 2012; Gartrell, 1997). In contrast, behaviorist approaches to child discipline conceptualize the learner as motivated by social and material rewards and learning from the direct teaching of concepts and skills (Duncan et al., 2000; Horner et al., 2009). More recently, there have been movements to integrate humanist and behaviorist approaches to teaching social skills, especially in regard to meeting the needs of developmentally- and ability-diverse classrooms (Carr & Boat, 2019; Shepley & Grisham-Brown, 2019).

The Sociocultural Context of Children's Social and Emotional Learning

While pre-service teachers report being under-prepared to support children's healthy SEL and navigate disruptive behaviors, the sociocultural context of children's social and emotional learning has become more difficult for children, families, and teachers to navigate. Children and families have experienced the stressors of a global pandemic (Barlett & Thompson, 2020), increased gun violence in schools (Delaney, 2017), and racial unrest (Chang et al., 2020). These sociocultural factors contribute to increased diagnoses of anxiety and depression among young children and their family members (Lebrun-Harris, et al., 2022).

Further, school discipline practices continue to contribute to unequal outcomes for young children of Color and those who have been identified as differently abled (US Department of Education, 2016). Beginning in preschool, Black boys and girls are suspended and expelled at a higher rate than white children and are more likely to be disciplined through law enforcement (Department of Education, 2016). Indigenous, Latinx, and multiracial boys as well as children with disabilities are disproportionately suspended in K-12 public schools (Department of Education, 2016). Recognizing the need for early education settings to better serve children with disabilities and racially minoritized children, Lim and Able-Boone (2005) recommend infusing teacher cultural responsiveness competencies in all teacher preparation courses. Likewise, NAEYC, the national accrediting body for early childhood higher education, recently updated its publications to recognize the impact of sociocultural factors on children's development and the responsibility of teacher education programs to support teachers in addressing unequal discipline outcomes for young children (NAEYC, 2020a, 2020b).

NAEYC Professional Standards and Competencies

The National Association for the Education of Young Children (NAEYC) is a professional membership and advocacy organization that has national and international impact on early childhood education. One essential function of NAEYC is to put forth position statements that address common concerns in the field. Three statements that have immense impact on early childhood teacher preparation in the United States are: Developmentally Appropriate Practice, Code of Ethical Conduct, and Professional Standards and Competencies. NAEYC put forth its initial position statement on developmentally appropriate practice in 1987 in response

to concern that inappropriate teaching practices and behavioral expectations for young children were prevalent in rapidly expanding preschool and kindergarten programs (NAEYC, n.d.). The early childhood education field has continued to expand with increased use of group care for infants and toddlers (Aboud & Prado, 2018) and the expansion of public preschool programs (Barnett & Friedman-Krauss, 2019). NAEYC has responded to these changes and the growing body of research on early childhood education by consistently updating statements on developmentally appropriate practice as well as developing other position statements including the Professional Standards and Competencies for Early Childhood Educators (PSCECE). The PSCECE are designed to serve as a core document for the field that can be used by states to develop their own standards and align professional and policy structures (NAEYC, 2010; 2020). NAEYC first published a set of professional competencies in 2010 and updated them to the current PSCECE in 2020.

The 2020 PSCECE recognize the impact of context on child development and learning, including the effects of structural inequities on young children and their families, and require that early childhood educators gain an understanding of these processes (NAEYC, 2020). Regarding child guidance and discipline practices, the 2020 competencies require that "[e]arly childhood educators reflect on their own values and potential biases" (NAEYC, 2020, p. 14) and

> work […] with colleagues and families to use positive and supportive guidance strategies for all children to help them navigate multiple home and school cultural codes, norms, and expectations and to prevent suspensions, expulsions, and other disciplinary measures that disproportionately affect young children of color. (p. 19)

In this study, we utilized the 2020 NAEYC PSCECE to identify the most up-to-date nationally recognized teacher competencies for child guidance and teaching of social and emotional skills.

Method

To better understand how early childhood teacher education programs conceptualize and publicize courses designed to prepare teachers to support children's SEL and facilitate the social environment of the classroom, we collected and analyzed programs of study and course descriptions from a national search of early childhood education programs. Informed by the 2020 NAEYC PSCECE and the 2010 NAEYC Standards for Initial & Advanced Early Childhood Professional Preparation Programs, we conducted qualitative content analysis (Stemler, 2000) of 237 course descriptions. The following research question guided our study: *Which competencies and skills are included in course descriptions, and which are omitted?*

Data Collection

Data collection consisted of two stages and took place from September 2019 to May 2020. The first stage was identifying early childhood education licensure programs. We identified a list of universities with early childhood education programs across the United States using the NAEYC Early Childhood Higher Education Directory (NAEYC, 2019). We limited our search to public institutions of higher education that provide bachelor's degrees in early childhood education that lead to licensure as such programs meet state guidelines and are representative of national and regional ideologies around early childhood education. We identified 314 higher education institutions that met the selection criteria.

The second stage of data collection was locating programs of study and collecting course descriptions from publicly available resources. We looked for methods courses that prepare teachers to address the social and emotional demands of early childhood educational spaces. Key words included: guidance, management, social, emotional, and behavior. If we did not find a course title that included one of these keywords, we scanned course titles and descriptions within the program of study to find relevant courses. Examples of qualifying course titles include Social/Emotional Learning and Development and Human Behavior and Relations in the Classroom. We identified 239 course titles that fit the selection criteria. Upon identifying relevant courses, we gathered 237 course descriptions from program web pages and course catalogues. We were unable to locate two course descriptions. Data were compiled into a central database and cross-checked for accuracy among researchers weekly.

Data Analysis

Data collection and analysis took place from September 2019 to December 2022. During that period, NAEYC published the 2020 Professional Standards and Competencies for Early Childhood Educators (PSCECE), a revised version of the 2010 NAEYC Standards for Initial and Advanced Early Childhood Professional Preparation Programs. The publication of the 2020 PSCECE led us to update our codebook (see Table 1.)

Table 1. Excerpt of codebook for content analysis of course descriptions

Code	Source of code	Relevant quote from NAEYC document	Clarifying definition	Example phrases from course descriptions
Relationships with Peers	2010 and 2020 NAEYC PSCECE	"children's close relationships with adults and peers" (NAEYC, 2010, p. 21) "build positive relationships with each child and between children" (NAEYC, 2020, p. 17)	Teacher support of student-to-student relationships including cooperation, friendship, and empathy	"conflict resolution" "pro-social"
Addressing Challenging Behaviors	2010 and 2020 NAEYC PSCECE	"addressing children's challenging behaviors" (NAEYC, 2010, p. 35) "anticipating individual children's difficult experiences and offering comfort and guidance during those experiences" (NAEYC, 2020, p. 19)	Teacher attending to difficult student behaviors after they have occurred.	"reactive" "behavior change techniques"
Emotional Understanding	2010 and 2020 NAEYC PSCECE	"emotional understanding" (NAEYC, 2010, pp. 12, 35) "emotional skills. . . to manage or regulate their expressions of emotion and, over time, to cope with frustration, develop resilience, learn to take on challenges, and manage impulses effectively" (NAEYC, 2020, p. 17)	Student skills around naming and understanding the emotions of self and others	"enhance children's social/emotional learning" "emotional literacy"

We found most codes were supported by both documents. However, we recognized a reduction in reliance on child development theory and an increased emphasis on creating physical and social environments. The most notable change from the 2010 to 2020 educator preparation documents was a recognition of the influence of culture and societal context,

including structural inequities, on child learning and development. In addition to deductive coding based on the 2020 PSCECE and NAEYC's (2010) Standards and Competencies document, we engaged in inductive coding with new codes emerging from the data set (Elliot, 2018). Table 1 is an excerpt from our codebook illustrating how we generated codes and their definitions. We began by identifying relevant quotes from the NAEYC (2010, 2020) PSCECEs, then we co-wrote clarifying definitions for our study and listed examples we found as we coded course descriptions.

Findings

We begin our findings by sharing an overview of the presence of courses on SEL and Social Environments in 314 programs of study at U.S. public universities with bachelor's degrees in early childhood education. We looked carefully at each program of study to identify courses that focus on children's SEL or the social aspect of the early learning environment and sorted programs of study into those that required zero, one, or two qualifying courses. After summarizing findings around the inclusion of courses on SEL in programs of study, we present the findings of our content analysis of 237 course descriptions. We identified the four teacher competencies that are most often represented in course descriptions and the three that are least represented. We situate each of these seven competencies in the field of early childhood education and share examples of how they appear in course descriptions.

Course Requirements in Programs of Study

Our survey of 314 early childhood education undergraduate programs found most programs required one course on SEL and/or the social environment of the early education setting, but 26% of programs required no such course. (See Table 2.)

Table 2. Program requirement of courses on SEL and Social Environments

Categories	*n*	%
Programs that require 0 courses	83	26.4
Programs that require 1 course	225	71.6
Programs that require 2 courses	6	1.9
	Total number of programs: 314	

These findings provide updated data based on a large sampling of public university programs of study. We are encouraged to find that nearly 74% of programs require at least one course on SEL and/or the social learning environment, as this is a slightly higher percentage than was found in similar studies by Flower et al. (2017) and Buettner et al. (2016). However, we are concerned by the many programs that require no such course. In the following sections, we look more closely at the content of the courses as outlined in publicly available course descriptions.

Most Prevalent Competencies

The following skills were most often included in course descriptions: 1) Understanding and Using Theory, 2) Addressing Challenging Behaviors, 3) Promoting Peer Relationships, and 4) Promoting Supportive Teacher/Student Relationships (see Table 3). In the following

paragraphs, we define each of these skills and their importance, then describe the ways the skill was presented in course descriptions. Two skills, promoting peer relationships and promoting positive teacher/student relationships, had significant overlap, so we presented them together.

Table 3. Count and percentage of 4 most prevalent codes

Codes	*n*	%
Understanding and using theory	118	49.7
Addressing challenging behaviors	82	34.5
Promoting peer relationships	73	30.8
Promoting supportive teacher-student relationships	73	30.8

Understanding and Using Theory

The field of early childhood education places importance on applying developmental and learning theories to care and education as evidenced by NAEYC's long-standing emphasis on developmentally appropriate practice (NAEYC, 2020a). The latest versions of NAEYC's position statements on developmentally appropriate practice and teacher competencies demonstrate new attention to sociocultural theories of development and learning. Standard 1 of the PSCECE is titled *Child Development and Learning in Context* and asserts that competent early childhood educators make decisions that are both "grounded in an understanding of the developmental period of early childhood from birth through age 8" (NAEYC, 2020b, p. 11) and an "understand[ing] that children learn and develop within relationships and within multiple contexts, including families, cultures, languages, communities, and society" (p. 11).

Understanding and Using Theory was the most frequently used code in our codebook with nearly fifty percent of course descriptions including theoretical grounding. The theory was typically mentioned in general terms with phrases such as "based upon educational theory and current related philosophies," "integrates research from various disciplines," and "knowledge of different approaches." Specific theories mentioned in the PSCECE include: Family theory, motivational theories, and theories about types and stages of play. In addition to general statements about theoretical grounding and mention of a specific theory, we found statements that reflected two often contradictory over-arching theories: developmentally appropriate practice and behaviorist theory. The developmentally appropriate practice was mentioned explicitly in 21 course descriptions. Examples of phrases coded *Understanding and Using Theory* with explicit mention of developmentally appropriate practice include "an in-depth study of developmentally appropriate guidance theories" and "using principles of developmentally appropriate child guidance and classroom management." The phrase *behaviorist theory* was rarely used explicitly, but the application of behaviorist theory was stated or implied in 26 course descriptions with phrases including "techniques of applied behavior management," "basic principles of applied behavior analysis and modification," and "Perspectives of psychoanalysis, individual psychology, behaviorism, and cognitive psychology." Some course descriptions included both behaviorist theory and theories that take development and context into account. Examples include: "Using behaviorist and constructivist frameworks" and "A detailed investigation of behavioral and humanistic approaches."

Addressing Challenging Behaviors

Nearly 35% of course descriptions included statements we coded *Addressing Children's Challenging Behaviors.* We derived this code from the 2010 PSCECE which stated, "A flexible, research-based repertoire of teaching/learning approaches to promote young children's development. . . [includes] Addressing children's challenging behaviors" (NAEYC, 2010, p. 35). The 2020 PSCECE do not include the phrase *challenging behaviors.* However, approaches to positive child guidance are described under Standard 4: Developmentally, Culturally, and Linguistically Appropriate Teaching Practices, where the following can be found, "Providing social and emotional support and positive guidance" (NAEYC, 2020, p. 19). Subskills of this competency that directly relate to addressing children's challenging behaviors are (NAEYC, 2020b, p. 19):

- "Learning the calming strategies that work best for individual children"
- "Anticipating children's difficult experiences"
- "Seeking help from colleagues, as needed"
- "Directing and redirecting behavior"
- "Scaffolding peer conflict resolution"

Based on these subskills, one might summarize the approach to addressing children's challenging behaviors depicted in the 2020 PSCECE as individualized, relationship-based, and scaffolded. However, this approach was not often represented in course descriptions. Most course descriptions mentioned challenging behaviors in general terms such as "handling challenging student behaviors" and "respond to difficult persistent behaviors." Of the 82 phrases we coded *Addressing Challenging Behaviors*, 31 contained at least one of the following phrases related to behaviorist approaches to child discipline: *functional behavior analysis/assessment, positive behavior support, applied behavior assessment, modifying behavior*, and *behavior intervention*.

Promoting Positive School Relationships

Both the 2010 and 2020 editions of the PSCECE recognize "caring, supportive relationships and interactions as the foundation for work with young children" in key competency 4a (2020, p. 10). Both editions also include competencies around supporting children's relationships with peers in recognition that positive peer relationships support healthy social and emotional development. Educator competencies that promote positive relationships with peers include, "creating a caring community of learners" (NAEYC, 2020b, p. 17) and "scaffolding peer conflict resolution" (NAEYC, 2020, p. 19). Thus, our code book included two distinct codes for promoting positive school relationships: *Promoting Peer Relationships and Promoting Supportive Teacher/Student Relationships.* When coding, we found that often course descriptions discussed classroom relationships in general terms such as "positive social environment" and "a caring and respectful classroom community" instead of making a distinction between teacher/child and peer relationships. When such general terms were used, we coded them using both codes. Thus, there was much, but not complete, overlap between the two codes resulting in the same frequency count, 73 out of 237, for each code.

Promoting Supportive Teacher/Student Relationships. Research indicates close teacher/student relationships in early education are associated with social emotional skill development and student academic success (Hamre & Pianta, 2001; Marks et al., 2023; Pianta & Stuhlman, 2019). Further, Black and Latino boys have been found to be less likely to have close relationships with teachers (Goldberg & Iruka, 2023). Despite its importance, only three course descriptions directly addressed the teacher/student relationships in particular. These three course descriptions used the following phrases: "emphasis on adult-child interaction," "build rapport with children and their families," and "emphasis on […] teacher-student relationships."

Promoting Student Relationships with Peers. Positive peer relationships and the ability to work collaboratively with peers can increase students' enjoyment of school and their learning (Gowing, 2019; Wentzel, 2017). When children have peer friendships at school, they have more opportunities to practice social skills (Riley et al., 2007). Phrases that were specific to peer relationships, as opposed to teacher/child relationships included "social interactions," "socially appropriate behavior," and "collaborative learning." Peer conflict resolution came up as a distinct skill to support peer relationships in the PSCECE and in course descriptions. Peer conflicts are a natural context for learning social and emotional skills as well as creative problem solving (Chen et al., 2021; DeVries & Zan, 2012). Further, in their literature review on reducing school gun violence, Price and Khubchandani (2019) recommend an increased focus on peer conflict resolution in schools. Teachers can scaffold children's successful negotiation of conflict in a manner that supports prosocial skill development (DeVries & Zan, 2012; Vestal & Jones, 2004), and research demonstrates teacher training on peer conflict resolution leads to increased social skills in children (Blunk et al., 2017; Vestal & Jones, 2004). When looking specifically for the teacher competency of scaffolding peer conflict resolution, we found that 15 course descriptions included supporting peer conflict resolution with statements like "promote conflict resolution" and "developing […] social-problem competencies in young children."

Least Prevalent Competencies

Noting which topics and competencies are least prevalent in course descriptions can be just as revealing as pointing out which are most prevalent. In this section, we present the three least prevalent competencies. The following skills were present in less than 5% of course descriptions: 1) *Supporting Children's Emotional Knowledge*, 2) *Promoting Children's Sense of Security*, and 3) *Considering Bias and Its Impact on Guidance and Discipline*. (See Table 4.) In the following paragraphs, we describe the importance of each skill and the nature of their representation in course descriptions.

Table 4. Count and percentage of 3 least prevalent codes

Codes	*n*	%
Supporting children's emotional knowledge	11	4.6
Promoting children's sense of security	4	1.7
Considering bias and its impact on guidance and discipline	1	0.4

Supporting Children's Emotion Knowledge

Distinct from emotion regulation, emotion knowledge is the ability to accurately interpret the emotions of self and others and recognize situations that may elicit strong emotions (Denham et al, 2012). Emotion knowledge is associated with academic achievement (Nix et al., 2013; Ursache et al., 2020) and social competence (Gal-Szabo et al., 2019, Trentacosta & Fine, 2010). One way children attain emotion knowledge at school is through focused interactions with teachers often guided by social/emotional curricula (Garner et al., 2019; Morris et al., 2013). The 2010 NAEYC Standards for Initial and Advanced Early Childhood Professional Preparation Programs list "emotional understanding" as one of the skills early educators must promote through a "well-planned, intentionally implemented, culturally relevant curriculum" (p. 12). While the 2020 PSCECE do not include the phrase emotional understanding, it does refer to *emotional skills* (NAEYC, 2020, p. 17).

We coded eight phrases in eight distinct course descriptions *Supporting Children's Emotional Knowledge*. Five of these phrases were written in general terms such as, "enhance children's social/emotional learning" and "addressing the social/emotional competence of typically and atypically developing children." Three phrases specifically addressed emotion knowledge: "emotional understanding," "emotional literacy," and "emotional intelligence."

Promoting Children's Sense of Security

The 2020 PSCECE list, "Promoting children's physical and psychological health, safety, and sense of security" (NAEYC, 2020, p. 13) as an educator competency under standard 1.d. When children feel psychologically and physically safe, they can engage in higher order thinking and learning (Maslow, 1970). Psychological safety includes feeling assured that one's emotions, ideas, and actions will be validated (Wanless, 2016) and a sense of being well-known and accepted, "free from social identity or stereotype threats that exacerbate stress and undermine performance" (Darling-Hammond & Cook-Harvey, 2018). When children feel psychologically safe, they are more likely to exercise agency and take intellectual risks (Wanless, 2016).

In the current context of education in the United States, physical and psychological safety at school is of urgent importance. Along with the real threat of illness for children and their families, the COVID-19 global pandemic led to many potentially frightening changes for young children, such as masking and social distancing measures (Bartlett & Thompson, 2020). Likewise, even young children must contend with school intruder drills, safety lockdowns, and the real threat of school shootings (Delaney, 2017).

In light of the importance of psychological and physical safety and the current context of education, teachers' skill at promoting children's sense of security is especially important. Despite this, we found only four of the 237 course descriptions we analyzed explicitly addressed promoting children's sense of security. These four phrases were: "create safe environments," "child stress reduction," "building caring and trusting classroom communities," and "fostering the sense of belonging."

Considering Bias and Its Impact on Guidance and Discipline

Abundant research demonstrates the nefarious consequences of structural inequities (Annamma & Handy, 2019; Noguera, 2003) and teacher bias (Boonstra, 2021; Bryan, 2017; Gilliam et al., 2016; Sabol et al., 2022) on student discipline outcomes for minoritized students. The 2020 PSCECE mandate that "[e]arly childhood educators reflect on their own values and potential biases" (NAEYC, 2020b, p. 14) and "prevent suspensions, expulsions, and other disciplinary measures that disproportionately affect young children of color" (p. 19). However, only one course description in the data set of 237 addressed the issue of teacher bias and its effect on child discipline. We found the following statement in the course description for a course titled *Human Relations*, "Focuses on . . .the dehumanizing impact of biases and negative stereotypes; and the human relations approach to teaching."

While only one course description explicitly addressed the problem of teacher bias in child discipline, many course descriptions addressed meeting the needs of diverse students in general terms. Our codebook included two distinct codes regarding serving minoritized children and families. The 2010 guide to the standards includes a section on Diversity, Inclusion, and Equity in which NAEYC defines diversity in terms of cultural, linguistic, and socioeconomic diversity and developmental diversity (NAEYC, 2010). From this, we developed the codes: *Meeting the needs of children who are* 1) *Culturally Diverse* and 2) *Developmentally Diverse*. We coded 42 phrases *Meeting the Needs of Children who are Culturally Diverse* and 60 phrases *Developmentally Diverse*. There is significant overlap between these two codes; we coded phrases that address diversity in a general manner using both codes. Phrases coded as pertaining to both cultural and developmental diversity often represented the notion of inclusive classrooms or inclusion of all children. Examples include: "Prepares teachers to work in multicultural general and special education settings with children of all ages from various backgrounds," "teacher candidates will understand the many dimensions of student diversity," and "understanding the developmental, cultural, and group dynamics underlying children's actions." While these phrases address the needs of diverse students in general, they are unlikely to translate to the specific skill of examining one's own bias and its potential effects on child guidance and discipline practices.

Discussion

Our survey of 314 state university programs of study found nearly 26% of programs in early childhood education require no course in children's social emotional learning or the social context of the classroom. Our content analysis of 237 course descriptions found: behaviorist theory and behaviorist approaches to addressing challenging behaviors are prevalent in course descriptions, classroom relationships are emphasized in general terms, children's emotional knowledge and sense of security are under-represented, and teacher bias is rarely addressed. Here we discuss these findings as they relate to each other.

Prevalence of Behaviorist Theory in Course Descriptions

Behaviorist theory was often evident in course descriptions. The 2022 PSECE emphasizes sociocultural influences on children's development and learning, including the harmful effects of racialized oppression at the system level. Behaviorist theory tends to ignore cultural influences and focus instead on clear communication of behavioral expectations and systems of rewards and punishments (Thomas, 2019; Horner et al., 2009). A major critique of

behaviorist approaches to learning in early childhood is that such approaches emphasize heteronomous rather than autonomous morality and teacher control rather than child agency (DeVries & Zan, 2012). Behaviorist approaches to child discipline practices have been found to be especially harmful to children of Color due to disregard of sociocultural influences on teachers' perceptions of and responses to problematic social behaviors (Thomas, 2019), over-punishment of children of Color (Bal & Trainor, 2016; Reno et al., 2017), and the sorting nature of reward and punishment systems (Brownell & Parks, 2022). It is important to note many in the field of early childhood special education assert the utility of behaviorist theory (Duncan et al., 2000; Shepley & Grisham-Brown, 2019), contending children's behavior may sometimes be "so detrimental to [themselves] and to the other children that additional measures [such as schedules of reinforcement] must be used to achieve quick results and restore a sense of psychological safety in the classroom community" (Duncan et al., 2000, p. 195). It is common to adopt intervention using Applied Behavior Analysis (ABA) to work with children with Autism. However, such behaviorist-based practices have recently been challenged in their effectiveness in comparison to developmental and naturalistic developmental behavioral intervention [NDBI] approaches (Sandbank et al., 2020). Grisham-Brown et al. (2017) advocate for a blended practice that utilizes developmentally appropriate approaches as well as behaviorist strategies so that teaching and discipline practices are individualized and engaging. As we consider the merits of incorporating behaviorist approaches in early childhood special education, we would like to point out that not only have children of Color been found to be disproportionately negatively impacted by behaviorist approaches, but they have also been over- and mis-represented in special education (Zhang et al., 2014).

Lack of Sociocultural Theory in Course Descriptions

The field of early childhood education in the United States was founded on social constructivist theory and, after decades of research, has more recently embraced sociocultural theories of child development and learning (NAEYC, 2020a). Sociocultural theory recognizes the profound influence of culture on development and asserts learning occurs through interactions with individuals and cultural artifacts in a cultural context (Vygotsky, 1978). With more in-depth inclusion of sociocultural theory in its resources on developmentally appropriate practice (NAEYC, 2020a) and teacher competencies (NAEYC, 2020b), NAEYC has also recognized the harmful impact of systemic inequities and individual biases on child learning and development. Theoretical grounding in sociocultural theory was not robustly represented across course descriptions.

In both social constructivist theory and sociocultural theory, healthy relationships are understood as foundational to student learning. While we found classroom relationships were often mentioned in course descriptions, they were typically represented in general terms such as "positive social environment." These general terms did not fully recognize "caring, supportive relationships and interactions as the foundation for work with young children" (NAEYC, 2020, p. 10). Teacher-child relationships and peer conflict resolution, in particular, were not often found in course descriptions. Strategies for supporting teacher/child and peer relationships are not always intuitive, and teacher candidates do not often have direct experience with such strategies from their own schooling (Carnoy & Tarlau, 2019). Relatedly, supporting children's emotion knowledge was not well-represented in course descriptions. Emotion knowledge and ability to express emotions effectively is known to support teacher-

child relationships (Denham, 2023), peer friendships (Petrides et al., 2006), and academic interactions (Alzahrani et al., 2019).

Finally, from a sociocultural standpoint, teacher preparation courses should reflect the needs of the current cultural and sociopolitical context. Our findings suggest course descriptions rarely reflect the unique challenges of SEL in today's context. As described above, the current context of education is affected by increased gun violence in schools, the Covid 19 pandemic, political unrest, and the disproportionate application of harsh discipline practices according to race and ability. A call to action published in the Journal of Teacher Education (Carter Andrews et al., 2018) identifies three gap areas in teacher preparation programs when considering the current context of education. The first two gap areas are directly related to our findings: 1) supporting student physical and psychological safety and 2) preparing teachers to discuss difficult topics including systemic oppression (Carter Andrews et al., 2018). Relatedly, in their review of the literature on reducing gun violence in schools, Price and Khubchandani (2019) recommend schools expand social educational interventions such as peer conflict resolution, peer mediation, and reduction of bullying. We understand students' sense of security, supported social interventions, and teachers' ability to counter systemic oppression to be intimately linked. Teachers cannot effectively carry out a social curriculum that supports all students' SEL if they do not possess a deep understanding of systemic oppression and their own relationships to oppressive systems (Thomas, 2019; Bryan, 2017; Mentor & Sealey-Ruiz, 2021). We also recognize the work will take significant change as teacher education has been found to be race evasive in terms of curriculum and pedagogy (Chang-Bacon, 2022; Jupp et al., 2019), and the current sociopolitical context includes social and legislative pressures to limit discussions of systemic oppression in schools (Gabriel & Goldstein, 2021) and universities (Myskow, 2022).

Limitations

Data for this study were limited to publicly available programs of study and course descriptions. By their nature, course descriptions only provide a general overview of the content of a course. They are often created by university curriculum teams, state departments of education, or individual instructors for use in course catalogs. Course descriptions are the public means by which courses are described to students, faculty who teach the course, those making decisions about transfer credits, and other stakeholders. While it is not uncommon for instructors to adapt the content of a course based on their own expertise and current research (Fuentes et al., 2021), instructors are understood to be beholden to course descriptions. Course descriptions are often used as a data source for understanding trends in course content across many programs (see Aasheim et al., 2015; Jones & Warhuus, 2018; Strekalova-Hughes & Ismail, 2019).

Implications

Course descriptions inform the public and the education community of the rationale for courses, key content, and skills to be learned by students who take the course. We recommend teacher preparation programs make their programs of study and course descriptions accessible to the public to better communicate the aims of the field. We recommend teacher preparation curriculum designers and state departments of education regularly undertake a re-examination of course descriptions and objectives in accordance with new teacher

competency guidelines, the latest research, and sociocultural factors affecting children and families.

Based on our content analysis, we have several implications regarding course content for child guidance, management, and discipline courses. First, we encourage instructors to support an adequate understanding of behaviorist, social constructivist, and sociocultural theories of learning so teacher candidates are prepared to evaluate social curricula and make theory-driven decisions in their child guidance practices. We recommend explicit teaching about the nature of classroom relationships and particular strategies to support healthy teacher/student and peer relationships. Grounded in NAEYC competencies and early childhood research, we assert emotion knowledge, i.e., children's ability to name their own emotions and the emotions of others, is essential content. Due to increasing rates of childhood anxiety and increased school gun violence, we recommend teaching preservice teachers strategies to promote children's psychological and physical safety. Finally, we recommend courses on children's SEL and school discipline practices, naming systemic oppression and implicit bias as factors that lead to disproportionate discipline outcomes and providing strategies to mitigate those forces.

Conclusion

The context of early childhood education is changing. Young children and their families have experienced a global pandemic (Barlett & Thompson, 2020), are more likely to be diagnosed with anxiety and depression (Lebrun-Harris, et al., 2022), and are more likely to be affected by gun violence in schools (Delaney, 2017). The United States has experienced another racial reckoning (Chang, 2020), and school discipline disparities according to race and ability persist (United States Department of Education, 2016). National teacher competency guidelines have been updated to reflect this changing context and the latest research. The PSCECE (NAEYC, 2020) mandate greater emphasis on the ways socio-political contexts affect child development and learning, including the effects of structural inequities on young children and their families. The 2020 PSCECE also assert the need for early educators to examine their own bias in order to improve social emotional health and learning for minoritized children. Our study finds programs of study and course descriptions for courses on SEL, positive guidance strategies, and the social context of early education settings need to be updated. We hope our study might offer helpful implications for updating course descriptions for courses that support teacher competency in SEL and the social context of early education spaces.

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References

Aasheim, C. L., Williams, S., Rutner, P., & Gardiner, A. (2015). Data analytics vs. data science: A study of similarities and differences in undergraduate programs based on course descriptions. *Journal of Information Systems Education*, *26*(2), 103.

Aboud, F. E., & Prado, E. L. (2018). Measuring the implementation of early childhood development programs. *Annals of the New York Academy of Sciences*, *1419*(1), 249-263.

Alzahrani, M., Alharbi, M., & Alodwani, A. (2019). The effect of social-emotional competence on children academic achievement and behavioral development. *International Education Studies*, *12*(12), 141-149. https://doi.org/10.5539/ies.v12n12p141

Annamma, S.A., & Handy, T. (2019). DisCrit solidarity as curriculum studies and transformative praxis. *Curriculum Inquiry*, *49*(4), 442-463. https://doi.org/10.1080/03626784.2019.1665456

Ashdown, D. M., & Bernard, M. E. (2012). Can explicit instruction in social and emotional learning skills benefit the social-emotional development, well-being, and academic achievement of young children? *Early Childhood Education Journal*, *39*(6), 397-405.

Bal, A., & Trainor, A. A. (2016). Culturally responsive experimental intervention studies: The development of a rubric for paradigm expansion. *Review of Educational Research, 86*(2), 319-359. http://doi.org/10.3102/0034654315585004

Barnett, W. S., & Friedman-Krauss, A. H. (2019). Early childhood education programs in the public schools. In *Handbook of Research on the Education of Young Children* (pp. 361-373). Routledge.

Bartlett, J. D., Griffin, J., & Thomson, D. (2020). Resources for supporting children's emotional well-being during the COVID-19 pandemic. *Child Trends*, *12*(1), 1-8. https://aisa.or.ke/wp-content/uploads/resources/health-and-wellbeing/wellbeing-resources/resources-for-supporting-childrens-emotional-well-being-during-the-covid-19-pandemic-290320.pdf

Blunk, E. M., Russell, E. M., & Armga, C. J. (2017). The role of teachers in peer conflict: implications for teacher reflections. *Teacher Development*, *21*(5), 597-608. https://doi.org/10.1080/13664530.2016.1273847

Boonstra, K. E. (2021). Constructing "Behavior Problems": Race, disability, and everyday discipline practices in the figured world of kindergarten. *Anthropology & Education Quarterly*, *52*(4), 373–390. https://doi.org/10.1111/aeq.12374

Bredekamp, S. (Ed.). (1987). *Developmentally appropriate practice in early childhood programs serving children from birth through age 8* (1st ed.). National Association for the Education of Young Children.

Brownell, C. J. & Parks, A. N. (2022). When the clips are down: How young children negotiate a classroom management system. *Anthropology and Education Quarterly, 53*(1), 5-26. https://doi.org/10.1111/aeq.12400

Bryan, N. (2017). White teachers' role in sustaining the school-to-prison pipeline: Recommendations for teacher education. *The Urban Review, 49*(2), 326-345. https://doi.org/10.1007/s11256-017-0403-3

Buettner, C. K., Hur, E.H., Jeon, L., & Andrews, D.W. (2016). What are we teaching the teachers? Child development curricula in US higher education. *Child & Youth Care Forum, 45*(1), 155-175. http://doi.org/10.1007/s10566-015-9323-0

Carnoy, M., Tarlau, R., & Torres, C (2019). Paulo Freire's continued relevance for U.S. education. In *The Wiley Handbook of Paulo Freire* (pp. 221–237). John Wiley & Sons, Inc. https://doi.org/10.1002/9781119236788.ch12

Carr, V., & Boat, M. (2019). " You say praise, I say encouragement"--Negotiating positive behavior support in a constructivist preschool. *Athens Journal of Education, 6*(3), 171-187. https://doi.org/10.30958/aje.6-3-1

Carter Andrews, D. J., Richmond, G., Warren, C. A., Petchauer, E., & Floden, R. (2018). A call to action for teacher preparation programs: Supporting critical conversations and democratic action in safe learning environments. *Journal of Teacher Education, 69*(3), 205-208. https://doi.org/10.1177/0022487118766510

Chang, A., Martin, R., & Marrapodi, E. (2020, August 16). Summer of racial reckoning [Radio broadcast]. NPR. https://www.npr.org/2020/08/16/902179773/summer-of-racial-reckoning-the-match-lit

Chang-Bacon, C. K. (2022). "We sort of dance around the race thing": Race-evasiveness in teacher education. *Journal of Teacher Education, 73*(1), 8-22. https://doi.org/10.1177/00224871211023042

Chen, D.W., Fein, G.G., KIllen, M., & Tam, H. (2021). Peer conflicts of preschool children: Issues, resolution, incidence, and age-related patterns. *Early Education and Development, 12*(4), pp. 523-544. https://doi.org/10.1207/s15566935eed1204_3

Darling-Hammond, L., & Cook-Harvey, C. M. (2018). Educating the whole child: Improving school climate to support student success. In *Learning Policy Institute*. Learning Policy Institute. https://files.eric.ed.gov/fulltext/ED606462.pdf

Delaney, K. K. (2017). Playing at violence: Lock-down drills, 'bad guys' and the construction of 'acceptable' play in early childhood, *Early Child Development and Care, 187*(5), 785-787. http://dx.doi.org/10.1080/03004430.2016.1219853

Denham, S. A. (2023). *The Development of Emotional Competence in Young Children*. Guilford Publications.

Denham, S. A., & Brown. C. (2010). "Plays nice with others": Social-emotional learning and academic success. *Early Education and Development, 21*(5), 652-680. https://doi.org/10.1080/10409289.2010.497450

Denham, S. A., Basset, H.H., & Zinsser, K. (2012). Early childhood teachers as socializers of young children's emotional competence. *Early Childhood Education Journal, 40*(3), 137-143. https://doi.org/10.1007/s10643-012-0504-2

Devries, R. & Zan, B. (2012). *Moral classrooms, moral children: Creating a constructivist atmosphere in early* education (2nd ed.). Teachers College Press.

Duncan, T. K., Kemple, K.M., & Smith, T.M. (2000). Reinforcement in developmentally appropriate early childhood classrooms. *Childhood Education*, *76*(4), 194-203. http://dx.doi.org/10.1080/00094056.2000.10521162

Elliott, V. (2018). Thinking about the coding process in qualitative data analysis. *The Qualitative Report*, *23*(11), 2850-2861.

Flower, A., McKenna, J. W., & Haring, C. D. (2017). Behavior and classroom management: Are teacher preparation programs really preparing our teachers? *Preventing School Failure: Alternative Education for Children and Youth*, *61*(2), 163-169. http://dx.doi.org/10.1080/1045988X.2016.1231109

Freire, P. (1985). *The politics of education: Culture, power, and liberation*. Greenwood Publishing Group.

Friedman, S., Masterson, M. L., Wright, B. L, Bredekamp, S., & Willer, B. A. (2021). *Developmentally appropriate practice in early childhood programs serving children from birth through age 8* (4th ed.). National Association for the Education of Young Children.

Fuentes, M. A., Zelaya, D. G., & Madsen, J. W. (2021). Rethinking the course syllabus: Considerations for promoting equity, diversity, and inclusion. *Teaching of Psychology*, *48*(1), 69-79. https://doi.org/10.1177/0098628320959979

Gabriel, T., & Goldstein, D. (2021, August 18). *Disputing racism's reach, republicans rattle American schools*. The New York Times. https://www.nytimes.com/2021/06/01/us/politics/critical-race-theory.html

Gal-Szabo, D. E., Spinrad, T. L., Eisenberg, N., & Sulik, M. J. (2019). The relations of children's emotion knowledge to their observed social play and reticent/uninvolved behavior in preschool: Moderation by effortful control. *Social Development*, *28*(1), 57-73. https://doi.org/10.1111/sode.12321

Garner, P. W., Bolt, E., & Roth, A. N. (2019). Emotion-focused curricula models and expressions of and talk about emotions between teachers and young children. *Journal of Research in Childhood Education*, *33*(2), 180-193. https://doi.org/10.1080/02568543.2019.1577772

Gartrell, D. (1997). Beyond discipline to guidance. *Young Children*, *52*(6), 34–42.

Goldberg, M. J., & Iruka, I. U. (2023). The role of teacher–child relationship quality in Black and Latino boys' positive development. *Early Childhood Education Journal*, *51*(2), 301-315. https://link.springer.com/article/10.1007/s10643-021-01300-3

Gowing, A. (2019). Peer-peer relationships: A key factor in enhancing school connectedness and belonging. *Educational and Child Psychology*, *36*(2), 64-77.

Grisham-Brown, J., Hemmeter, M. L., & Pretti-Frontczak, K. (2017). *Blended practices for teaching young children in inclusive settings* (2nd ed.). Paul H. Brookes Publishing Company.

Hamre, B. K., & Pianta, R. C. (2001). Early teacher-child relationships and the trajectory of children's school outcomes through eighth grade. *Child Development*, *72*(2), 625–638. https://doi.org/10.1111/1467-8624.00301

Haslip, M. J., & Gullo, D. F. (2018). The changing landscape of early childhood education: Implications for policy and practice. *Early Childhood Education Journal*, *46*(3), 249-264. https://doi.org/10.1007/s10643-017-0865-7

Horner, R. H., Sugai, G., Smolkowski, K., Eber, L., Nakasato, J., Todd, A. W., & Esperanza, J. (2009). A randomized, wait-list controlled effectiveness trial assessing school-wide positive behavior support in elementary schools. *Journal of Positive Behavior Interventions, 11*(3), 133–144. http://doi.org/10.1177/1098300709332067

Hunter, A., & Hemmeter, M. L. (2009). Addressing challenging behavior in infants and toddlers (Module 1, Handout 1.4). The Center on the Social and Emotional Foundations for Early Learning.

Jones, S., & Warhuus, J. P. (2018). "This class is not for you": An investigation of gendered subject construction in entrepreneurship course descriptions. *Journal of Small Business and Enterprise Development*, *25*(2), 182-200. https://doi.org/10.1108/JSBED-07-2017-0220

Jupp, J. C., Leckie, A., Cabrera, N. L., & Utt, J. (2019). Race-evasive White teacher identity studies 1990–2015: What can we learn from 25 years of research? *Teachers College Record*, *121*(1), 1-58. http://doi.org/https://doi.org/10.1177/016146811912100103

Lebrun-Harris, L. A., Ghandour, R. M., Kogan, M. D., & Warren, M. D. (2022). Five-year trends in US children's health and well-being, 2016-2020. *JAMA pediatrics*, *176*(7), e220056-e220056. https://doi.org/:10.1001/jamapediatrics.2022.0056

Lim, C. I., & Able-Boone, H. (2005). Diversity competencies within early childhood teacher preparation: Innovative practices and future directions. *Journal of Early Childhood Teacher Education, 26*(3), 225-238. https://doi.org/10.1080/10901020500369803

Marks, L. C., Hund, A. M., Finan, L. J., Kannass, K. N., & Hesson-McInnis, M. S. (2023). Understanding academic readiness for kindergarten: The interactive role of emotion knowledge and teacher–child closeness. *Journal of Experimental Child Psychology*, *227*, 401-428. https://doi.org/10.1016/j.jecp.2022.105585

Maslow A. H. (1970). *Motivation and personality* (2nd ed.). Harper & Row.

Mentor, M., & Sealey-Ruiz, Y. (2021). Doing the deep work of antiracist pedagogy: Toward self-excavation for equitable classroom teaching. *Language Arts*, *99*(1), 19-24.

Morris, P., Millenky, M., Raver, C. C., & Jones, S. M. (2013). Does a preschool social and emotional learning intervention pay off for classroom instruction and children's behavior and academic skills? Evidence from the foundations of learning project. *Early Education & Development*, *24*(7), 1020-1042. https://doi.org/10.1080/10409289.2013.825186

Myskow, W. (2022, June 8). *Legislation to limit critical race theory at colleges has reached fever pitch*. The Chronicle of Higher Education. https://www.chronicle.com/article/legislation-to-limit-critical-race-theory-at-colleges-has-reached-fever-pitch

National Association for the Education of Young Children (2020a). Developmentally appropriate practice [Position statement]. https://www.naeyc.org/sites/default/files/globally-shared/downloads/PDFs/resources/position-statements/dap-statement_0.pdf

National Association for the Education of Young Children. (2010). *NAEYC standards for initial & advanced early childhood professional preparation programs*. https://www.naeyc.org/sites/default/files/globally-shared/downloads/PDFs/accreditation/higher-ed/naeyc-higher-ed-accreditation-standards.pdf

National Association for the Education of Young Children. (2020b). Professional standards and competencies for early childhood educators [Position statement]. https://www.naeyc.org/resources/position-statements/professional-standards-competencies

National Association for the Education of Young Children. (n.d.). *Appendix A: history and context*. https://www.naeyc.org/resources/position-statements/dap/history-context

National Association for the Education of Young Children. (n.d.). *About NAEYC*. http://www.naeyc.org/content/about-naeyc

Nix, R. L., Bierman, K. L., Domitrovich, C. E., & Gill, S. (2013). Promoting children's social-emotional skills in preschool can enhance academic and behavioral functioning in kindergarten: Findings from Head Start REDI. *Early Education & Development*, *24*(7), 1000-1019. https://doi.org/10.1080/10409289.2013.825565

Noguera, P. (2003). Schools, prisons, and social implications of punishment: Rethinking disciplinary practices. *Theory into Practice*, *42*(4), 341-350. https://www.tandfonline.com/doi/abs/10.1207/s15430421tip4204_12

Petrides, K. V., Sangareau, Y., Furnham, A., & Frederickson, N. (2006). Trait emotional intelligence and children's peer relations at school. *Social Development*, *15*(3), 537-547. https://doi.org/10.1111/j.1467-9507.2006.00355.x

Pianta, R. C., & Stuhlman, M. W. (2019). Teacher-child relationships and children's success in the first years of school. *School Psychology Review*, *33*(3), 444-458. https://doi.org/10.1080/02796015.2004.12086261

Price, J. H., & Khubchandani, J. (2019). School firearm violence prevention practices and policies: Functional or folly? *Violence and Gender*, *6*(3), 154-167. https://doi.org/10.1089/vio.2018.0044

Rakap, S., Balikci, S., Kalkan, S., & Aydin, B. (2018). Preschool teachers' use of strategies to support social-emotional competence in young children. *International Journal of Early Childhood Special Education*, *10*(1), 11-25. https://doi.org/10.20489/intjecse.454103

Reno, G. D., Friend, J., Caruthers, L., & Smith, D. (2017). Who's getting targeted for behavioral interventions? Exploring the connections between school culture, positive behavior support, and elementary student achievement. *Journal of Negro Education*, *86*(4), 423-438. https://www.jstor.org/stable/10.7709/jnegroeducation.86.4.0423

Riley, D., San Juan, R., Klinkner, J., & Ramminger, A. (2007). *Social & emotional development: Connecting science and practice in early childhood settings*. Redleaf Press.

Sabol, T. J., Kessler, C. L., Rogers, L. O., Petitclerc, A., Silver, J., Briggs-Gowan, M., & Wakschlag, L. S. (2022). A window into racial and socioeconomic status disparities in preschool disciplinary action using developmental methodology. *Annals of the New York Academy of Sciences*, *1508*(1), 123-136.

Sandbank, Bottema-Beutel, K., Crowley, S., Cassidy, M., Dunham, K., Feldman, J. I., Crank, J., Albarran, S. A., Raj, S., Mahbub, P., & Woynaroski, T. G. (2020). Project AIM: Autism intervention meta-analysis for studies of young children. *Psychological Bulletin*, *146*(1), 1–29. https://doi.org/10.1037/bul0000215

Schonert-Reichl, K. A. (2017). Social and emotional learning and teachers. *The Future of Children*, *27*(1), 137–155. https://doi.org/10.1353/foc.2017.0007

Shepley, C., & Grisham-Brown, J. (2019). Applied behavior analysis in early childhood education: An overview of policies, research, blended practices, and the curriculum framework. *Behavior Analysis in Practice*, *12*(1), 235-246. https://doi.org/10.1007/s40617-018-0236-x

Soroko, A. (2016). No child left alone. *The ClassDojo app. Our Schools/Our Selves*, *25*(3), 63-74.

Stemler, S. (2000). An overview of content analysis. *Practical assessment, research, and evaluation*, *7*(1), 17.

Strekalova-Hughes, E., & Ismail, S. (2019). Toward creativity justice: interrogating the promise of 'universal' creativity in early childhood teacher preparation. *Perspectives and Provocations*, *8*(3), 1-40.

Thomas, R. (2019). Identifying your skin is too dark as a put-down: Enacting whiteness as hidden curriculum through a bullying prevention programme. *Curriculum Inquiry*, *49*(5), 573-592.

Trentacosta, C. J., & Fine, S. E. (2010). Emotion knowledge, social competence, and behavior problems in childhood and adolescence: A meta-analytic review. *Social Development*, *19*(1), 1–29. https://doi.org/10.1111/j.1467-9507.2009.00543.x

United States Department of Education Office of Civil Rights. (2016) *2013-2014 Civil rights data collection: A first look.* https://ocrdata.ed.gov/assets/downloads/2013-14-first-look.pdf

United States Department of Education. (2018). *Preparation and support for teachers in public school: Reflections on the first year of teaching*. https://nces.ed.gov/pubs2018/2018143.pdf

Ursache, A., Kiely Gouley, K., Dawson-McClure, S., Barajas-Gonzalez, R. G., Calzada, E. J., Goldfeld, K. S., & Brotman, L. M. (2020). Early emotion knowledge and later academic achievement among children of color in historically disinvested neighborhoods. *Child development*, *91*(6), e1249-e1266. https://doi.org/10.1111/cdev.13432

Vestal, A., & Jones, N. A. (2004). Peace building and conflict resolution in preschool children. *Journal of Research in Childhood Education*, *19*(2), 131-142. https://doi.org/10.1080/02568540409595060

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

Wanless S. B. (2016). The role of psychological safety in human development. *Research in Human Development*, *13*(1), 6–14. https://doi.org/10.1080/15427609.2016.1141283

Wentzel, K. R. (2017). Peer relationships, motivation, and academic performance at school. In A. J. Elliot, C. S. Dweck, & D. S. Yeager (Eds.), *Handbook of competence and motivation: Theory and application* (pp. 586–603). The Guilford Press.

Zhang, D., Katsiyannis, A., Ju, S., & Roberts, E. (2014). Minority representation in special education: 5-year trends. *Journal of Child and Family Studies*, *23*(1), 118-127. https://doi.org/10.1007/s10826-012-9698-6

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Examining Algebra I performance differences among at-risk Texas Hispanic high school boys: A multiyear investigation

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Abstract

This investigation examined the Algebra I End-of-Course exam performance of Hispanic boys who were at-risk and those who were not at-risk during the 2016-2017, 2017-2018, and 2018-2019 school years. Data for all students in Texas who took the Algebra I End-of-Course exam during these years were obtained from the Texas Education Agency. The analysis focused exclusively on Hispanic boys. Utilizing secondary data, a causal-comparative or ex post facto study was conducted. The inferential statistical procedures revealed statistically significant differences in performance for at-risk Hispanic boys across all three school years. In each of these years, a significantly lower percentage of at-risk Hispanic boys met the three grade-level standards (Approaches Grade Level, Meets Grade Level, and Masters Grade Level) compared to their not-at-risk peers. On average, at-risk Hispanic boys answered about 13 fewer items correctly than those who were not at-risk. These findings indicate that current instructional practices are not adequately meeting the needs of at-risk Hispanic boys. Policymakers and educational leaders are advised to review current programs and implement necessary changes to better support these students.

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Algebra I end-of-course exam; approaches grade level standard; meets grade level standard; masters grade level; Hispanic boys

Introduction

Academic achievement in schools throughout the United States can be predicted by income, race/ethnicity, gender ratio, and other student demographic variables (De Clercq et al., 2021). Student demographic variables are important to note because state assessment scores, college entrance exams, dropout rates, and other important academic indicators have used the aforementioned demographic factors to identify which student groups are more likely to be successful (De Clercq et al., 2021; Uline & Cline, 2005). In particular, and the focus of this article, Hispanic students experience barriers that increase their chances of falling into a widened achievement gap (Davis-Kean & Jager, 2014).

The Hispanic population in the United States has been more than 50% of the overall population growth in the last 10 years (U.S. Census Bureau, 2017). The growth of the Hispanic population has resulted in the doubling of Hispanic student enrollments in public schools in the past two decades. To address opportunity and achievement gaps documented for students of color, the No Child Left Behind Act of 2002 and the more-recent Every Student Succeeds Act of 2015 were passed by the federal government. Attention was specifically directed toward student

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demographic subgroups through the passing of the No Child Left Behind Act by quantifying achievement levels for each group (Lubienski & Crockett, 2007). Unfortunately, efforts initiated by the No Child Left Behind Act did not result in closing achievement gaps for Hispanic students. Hispanic students continue to perform substantially lower in core academic areas years after the passing of the legislation (Kotok, 2017). Succeeding the No Child Left Behind Act was the Every Student Succeeds Act in 2015. Each state was required in this act to submit data about the performance of public school students annually. According to the National Center for Education Statistics (2022a), however, achievement gaps for Hispanic students still have not improved.

With respect to gender, Hispanic boys in the United States are not closing the achievement gaps. Results from the 2019 administration of the National Assessment of Educational Progress, given every two years in Grades 4, 8, and 12, for Hispanic boys have decreased incrementally since 2013. Raw scores for Hispanic students were at the highest achievement level in 2013 since the assessment began in 1990, with Hispanic students having an average raw score of 285. This score, however, is below the cut score of the Proficient level. Since 2013, Hispanic students have performed lower (i.e., 282 in 2015, 283 in 2017, and 282 in 2019) than the high point raw score of 285. The performance of Hispanic boys on this assessment has decreased in the last four assessments (National Center for Education Statistics, 2022b). As such, the achievement gap in mathematics has widened for Hispanic boys.

With respect to the state of interest for this article, Texas, disparities in academic success for Hispanic students compared to White students have been documented beginning at the early elementary grade levels. In one such study, Rojas-Lebouef (2010) examined 16 years of data on Hispanic student performance on two Texas state-mandated Grade 5 mathematics assessments. In the time period examined, 1993-2009, the average mathematics passing percentage of Hispanic students was 82.44% compared to an average passing rate of 90.2% for White students. Rojas-Lebouef (2010) documented that achievement gaps were present in each of the 16 years of her investigation. As of 2010, Hispanic students had not narrowed the achievement gap as intended by the passing of the No Child Left Behind Act in 2002.

In reference to Grade 8 mathematics performance on the Texas state-mandated exam, Craft (2011) analyzed statewide data for seven consecutive school years (i.e., 2003-2004 through 2009-2010). Craft (2011) established that Hispanic students performed lower than state expectations in all seven years. Of note was that the mathematics achievement gap widened from Grade 5 to Grade 8. The average passing rate of Hispanic students in Grade 8 was 66.3%, compared to an average passing rate of 81.11% for White students (Craft, 2011). These studies add to the research literature that the achievement gap for Hispanic students increases by grade level compared to White students. The reason that this statistic is important is because Grade 8 is the year that is predictive of future college readiness as demonstrated in high school (Fuller et al., 2010).

With respect to the previous Texas state-mandated assessment in mathematics, Alford-Stephens (2016) analyzed the degree to which differences were present in mathematics achievement for the 2004-2005 through the 2011-2012 school years by student ethnicity/race. Results from her multiyear investigation are relevant to this article because the Texas state-mandated mathematics assessment was aligned to the Algebra I End-of-Course exam, as they are both state exit graduation requirements for mathematics. In her multiyear investigation,

Alford-Stephens (2016) established the presence of statistically significant mathematics achievement gaps by student ethnicity/race. Hispanic boys were statistically significantly outperformed by both Asian and White boys. The gaps that Alford-Stephens (2016) documented remained consistent across the eight years of data that she analyzed.

With respect to the current Texas state-mandated assessments, the Texas Academic Performance Report indicated that 33% of Hispanic students did not meet any of the three grade level performance standards (i.e., Approaches Grade Level, Meets Grade Level, and Masters Grade Level) on the Algebra I End-of-Course exam in the 2020-2021 school year. In the spring of 2021, 67% of Hispanic students met the Approaches Grade Level standard; 33% of Hispanic students met the Meets Grade Level standard; and only 16% of Hispanic students met the Masters Grade Level standard (Texas Education Agency, 2021). These results were in comparison to the 73% of all students who met the Approaches Grade Level standard; 41% of all students who met the Meets Grade Level standard; and 23% of students who met the Masters Grade Level standard. Regarding student gender and Algebra I End-of-Course exams, the Texas Education Agency reported in the spring of 2019 that 80% of boys met the Approaches Grade Level standard; 56% of boys met the Meets Grade Level standard; and 35% of boys met the Masters Grade Level standard.

Achievement gaps exist for Hispanic students based on their at-risk status. The Texas Education Agency defines a student at-risk if that student meets one or more of the 13 categories that make that student more likely to drop out of school. The 13 categories of the at-risk label for students in Texas are present on the Texas Education Agency Website. The at-risk categories that are directly related to academic performance are: (a) unsatisfactory performance on readiness assessments in Grades 1, 2, or 3, (b) failed credit in two or more subjects in Grades 7-12, (c) not advanced to the next grade level for one or more school years, and (d) unsatisfactory performance in same content assessment instruments for two or more consecutive school years (Texas Education Agency, 2022). Students who were labeled at-risk scored below the state average on the Algebra I End-of-Course exam. The Texas Education Agency reported in the spring of 2019 that 73% of students who were at-risk met the Approaches Grade Level standard; 43% of students who were at-risk met the Meets Grade Level standard; and 20% of students who were at-risk met the Masters Grade Level standard.

Achievement gaps, opportunity gaps, and higher at-risk status for Hispanic boys than other subgroups are well documented by researchers (Kent et al., 2017; Kim et al., 2015). After an intensive review of the existing research literature, no published articles could be located regarding Algebra I End-of-Course exam performance for Hispanic students who were labeled at-risk. Findings from this multiyear empirical analysis will help fill the existing gap in the research literature.

Statement of the Problem

Closing the achievement gap has been a priority in the United States for decades. The No Child Left Behind Act, followed by the Every Student Succeeds Act, was legislation designed to ensure equity in academics for all students. According to the U.S. Census Bureau (2017), the Hispanic population has substantially increased since 1990. Texas and many other states that border Mexico have had the largest Hispanic population influx (U.S. Census Bureau, 2017). The Hispanic student population increase has mirrored the growth of the United States population in regard to the rate of increase (Texas Education Agency, 2019). The increase in

population has created more challenges for school districts to close the achievement gap for Hispanic students. Several researchers (e.g., Anderson et al., 2007; David & Marchant, 2015; Rojas-LeBouef & Slate, 2012) have documented the existence of achievement gaps for Hispanic students. Addressed in this investigation will be the performance of Hispanic boys by their at-risk status on the Texas state-mandated Algebra I End-of-Course exam.

Purpose and Significance of the Study

The purpose of this article was to determine the degree to which the at-risk status of Hispanic boys was related to their performance on the Texas state-mandated Algebra I End-of-Course exam. Specifically examined was the degree to which the at-risk status of Hispanic boys was related to their performance on three grade level standards (i.e., Approaches Grade Level, Meets Grade Level, and Masters Grade Level) and raw score. Results of the Algebra I End-of-Course exam for Hispanic boys for three consecutive school years (i.e., 2016-2017, 2017-2018, 2018-2019) were analyzed. Following analysis of data from each school year, the extent to which trends were present was addressed.

The results of this study will be added to the existing research literature available on the achievement gap for Hispanic students. Specifically, this study was conducted to add to the existing literature available on the extent to which differences might be present in the Algebra I End-of-Course exam performance between Hispanic boys who were labeled at-risk and Hispanic boys who were not labeled at-risk. Findings from this investigation will provide a potential baseline for analysis of data before the 2020 Pandemic.

Research Questions

The following overarching research question was addressed in this study: What is the effect of the at-risk status of Hispanic boys on their Algebra I End-of-Course exam performance? Sub-questions under this overarching research question were: (a) What is the effect of the at-risk status of Hispanic boys on their Algebra I End-of-Course Approaches Grade Level performance; (b) What is the effect of the at-risk status of Hispanic boys on their Algebra I End-of-Course Meets Grade Level performance?; (c) What is the effect of the at-risk status of Hispanic boys on their Algebra I End -of-Course Masters Grade Level performance?; (d) What is the effect of the at-risk status of Hispanic boys on their Algebra I End-of-Course exam raw score?; and (e) What trend is present in the performance of Hispanic boys on the Algebra I End-of-Course grade level standards over a three year period? The first four questions were addressed separately for three school years: 2016-2017, 2017-2018, and 2018-2019, and the fifth research question involved all three school years.

Method

Research Design

A causal-comparative research design (Johnson & Christensen, 2020) was present in this multi-year analysis. In this study, the independent variable was the at-risk status of Hispanic boys in the State of Texas. Dependent variables were the performance of Hispanic boys on the Algebra I End-of-Course exam: (a) Approaches Grade Level standard, (b) Meets Grade Level standard, (c) Masters Grade Level standard, and (d) raw score for the 2016-2017, 2017-2018,

and 2018-2019 school years. In a causal-comparative research design, pre-existing data are analyzed. These data were obtained from the Texas Education Agency Public Education Information Management System (PEIMS Data Standards, 2018).

Participants and Instrumentation

Participants in this study were Hispanic boys in Texas who took the Algebra I End-of-Course exam in the 2016-2017, 2017-2018, and 2018-2019 school years. The data that were analyzed herein had been previously obtained from the Texas Education Agency Public Education Information Management System database for the Algebra I End-of-Course exam that was administered during the 2016-2017, 2017-2018, and 2018-2019 school years. A Public Information Request was previously submitted to and was fulfilled by the Texas Education Agency to obtain the data. The datasets requested and obtained were for (a) ethnicity/race, (b) gender, (c) Grade Level, (d) Algebra I End-of-Course Performance Level Standards, (e) raw score, and (d) at-risk indicator. Upon receipt, the data were then imported into the Statistical Package for Social Sciences software program (SPSS) for analysis (Field, 2009).

Performance on the STAAR Phase-in standards was examined by at-risk status. Assessed by the Algebra I End-of-Course exam, there are three categories for performance. In the Approaches Grade Level Category: Performance in this category indicates that students are likely to succeed in the next grade or course (Texas Education Agency, 2019). In the Meets Grade Level Category: Performance in this category indicates students have a high probability of academic success in the next grade or course (Texas Education Agency, 2019). Students may still need some type of short-term and targeted academic intervention. Performance in the Masters Grade Level Category indicates that students are expected to succeed in the next grade or course. Students who perform at this level need very little to no academic intervention (Texas Education Agency, 2019). Students in this category demonstrate the ability to think critically and apply the assessed knowledge and skills in varied contexts, both familiar and unfamiliar (Texas Education Agency, 2022). Raw score performance demonstrates the number of items answered correctly, as the items represent specific content objectives (Texas Education Agency, 2022).

Data Analysis

To ascertain whether differences were present in the Algebra I End-of-Course exam performance (i.e., Did Not Meet, Met) at the Approaches Grade Level standard, Meets Grade Level standard, Masters Grade Level standards, and raw score between Hispanic boys who were not labeled at-risk and Hispanic boys who were labeled at-risk, Pearson chi-square analyses were conducted. Pearson chi-square procedures are the most appropriate statistical procedure to use when the independent variable and dependent variables are dichotomous. Accordingly, chi-squares are the statistical procedure of choice when both variables are categorical (Slate, 2023). Prior to calculating Pearson chi-square procedures, its underlying assumptions were checked. Given the large sample size and data independence, these assumptions were met.

Results

Approaches Grade Level Results

With respect to the first research question about the Algebra I End-of-Course Approaches Grade Level standard for the 2016-2017 school year, the result was statistically significant, $\chi^2(1) = 9{,}992.62$, $p < .001$. The effect size for this finding, Cramer's V, was moderate, .36 (Cohen, 1988). As revealed in Table 1, a statistically significantly higher percentage of Hispanic boys who were at-risk failed to meet the Approaches Grade Level standard than Hispanic boys who were not at-risk. Almost six times the percentage of Hispanic boys who were at-risk did not meet this grade level standard than Hispanic boys who were not at-risk.

Table 1. Frequencies and percentages of the Algebra I end-of-course approach grade level standard of Hispanic boys by their at-risk status

School Year and At-Risk Status	Did Not Meet *n* and %age of Total	Met *n* and %age of Total
2016-2017		
At-Risk	(*n* = 25,031) 45.1%	(*n* = 30,523) 54.9%
Not At-Risk	(*n* = 1,786) 7.8%	(*n* = 21,091) 92.2%
2017-2018		
At-Risk	(*n* = 26,573) 41.5%	(*n* =37,400) 58.5%
Not At-Risk	(*n* = 2,097) 9.0%	(*n* = 21,205) 91.0%
2018-2019		
At-Risk	(*n* = 23,190) 39.1%	(*n* = 36,177) 60.9%
Not At-Risk	(*n* = 2,427) 12%	(*n* = 17,749) 88%

Regarding the Approaches Grade Level standard for the 2017-2018 school year, a statistically significant difference was yielded, $\chi^2(1) = 8{,}198.14$, $p < .001$. The effect size for this finding, Cramer's V, was moderate, .31 (Cohen, 1988). A statistically significantly higher percentage of Hispanic boys who were at-risk failed to meet the Approaches Grade Level standard than Hispanic boys who were not at-risk. Similar to the previous school year, the percentage of Hispanic boys who were at-risk and who did not meet the grade level standard was almost four and one half times more than the percentage of Hispanic boys who were not at-risk and who did not meet this grade level standard. Table 1 contains the descriptive statistics for this analysis.

Concerning the Approaches Grade Level standard for the 2018-2019 school year, a statistically significant difference was revealed, $\chi^2(1) = 5{,}040.14$, $p < .0, 01$, Cramer's V of .25, a small effect size (Cohen, 1988). A statistically significantly higher percentage of Hispanic boys who were at-risk failed to meet the Approaches Grade Level standard than Hispanic boys who were not at-risk. The percentage of Hispanic boys who were at-risk and who did not meet this grade level standard was more than three times the percentage of Hispanic boys who were not at-risk and who did not meet this standard. Delineated in Table 1 are the descriptive statistics for this school year.

Meets Grade Level Results

With respect to the second research question about the Algebra I End-of-Course Meets Grade Level standard for the 2016-2017 school year, the result was statistically significant, $\chi^2(1) = 16{,}115.79$, $p < .001$. The effect size for this finding, Cramer's V, was moderate, .45 (Cohen, 1988). As delineated in Table 2, a statistically significantly higher percentage of Hispanic boys who were at-risk, over 48 percentage points higher, failed to meet this grade level standard. The percentage of Hispanic boys who were at-risk and who did not meet this grade level standard was almost three times the percentage of Hispanic boys who were not at-risk and who did not meet this standard.

Table 2. Frequencies and percentages of the Algebra I end-of-course meet grade level standard of Hispanic boys by their at-risk status

School Year and At-Risk Status	Did Not Meet *n* and %age of Total	Met *n* and %age of Total
2016-2017		
At-Risk	(*n* = 41,930) 75.5%	(*n* = 13,624) 24.5%
Not At-Risk	(*n* = 6,155) 26.9%	(*n* = 16,722) 73.1%
2017-2018		
At-Risk	(*n* = 46,891) 73.3%	(*n* = 17,082) 26.7%
Not At-Risk	(*n* = 5,977) 25.7%	(*n* = 17,325) 74.3%
2018-2019		
At-Risk	(*n* = 39,737) 66.9%	(*n* = 19,630) 33.1%
Not At-Risk	(*n* = 5,082) 25.2%	(*n* = 15,094) 74.8%

Regarding the Meets Grade Level standard for the 2017-2018 school year, a statistically significant difference was yielded, $\chi^2(1) = 16{,}237.85$, $p < .001$. The effect size for this finding, Cramer's V, was moderate, .43 (Cohen, 1988). A statistically significantly higher percentage of Hispanic boys who were at-risk failed to meet the Meets Grade Level standard than Hispanic boys who were not at-risk. The percentage of Hispanic boys who were at-risk and who did not meet this grade level standard was almost three times the percentage of Hispanic boys who were not at-risk and who did not meet this standard. Table 2 contains the descriptive statistics for this analysis.

Concerning the Meets Grade Level standard for the 2018-2019 school year, a statistically significant difference was revealed, $\chi^2(1) = 10{,}668.98$, $p < .001$, Cramer's V of .37, a moderate effect size (Cohen, 1988). A statistically significantly higher percentage of Hispanic boys who were at-risk failed to meet the Meets Grade Level standard than Hispanic boys who were not at-risk. The percentage of Hispanic boys who were at-risk and who did not meet this grade level standard was more than two and one half times the percentage of Hispanic boys who were not at-risk and who did not meet this standard. Table 2 contains the descriptive statistics for this school year.

Masters Grade Level Results

With respect to the third research question about the Algebra I End-of-Course Masters Grade Level standard for the 2016-2017 school year, the result was statistically significant, $\chi^2(1) = 15{,}035.84$, $p < .001$. The effect size for this finding, Cramer's V, was moderate, .44 (Cohen, 1988). As revealed in Table 3, a statistically significantly higher percentage of Hispanic boys who were at-risk, 36 percentage points higher, failed to meet this grade level standard than Hispanic boys who were not at-risk. The percentage of Hispanic boys who were at-risk and who did not meet this grade level standard was more than seven times lower than Hispanic students who were not at-risk and who did not meet this standard.

Table 3. Frequencies and percentages of the algebra I end-of-course masters grade level standard of Hispanic boys by their at-risk status

School Year and At-Risk Status	Did Not Meet *n* and %age of Total	Met *n* and %age of Total
2016-2017		
At-Risk	(*n* = 52,026) 93.6%	(*n* = 3,528) 6.4%
Not At-Risk	(*n* = 13,171) 57.6%	(*n* = 9,706) 42.4%
2017-2018		
At-Risk	(*n* = 57,605) 90.0%	(*n* = 6,368) 10.0%
Not At-Risk	(*n* = 11,855) 50.9%	(*n* = 11,447) 49.1%
2018-2019		
At-Risk	(*n* = 50,961) 85.8%	(*n* = 8,406) 14.2%
Not At-Risk	(*n* = 9,469) 46.9%	(*n* = 10,707) 53.1%

Regarding the Masters Grade Level standard for the 2017-2018 school year, a statistically significant difference was yielded, $\chi^2(1) = 16{,}131.47$, $p < .001$. The effect size for this finding, Cramer's V, was moderate, .43 (Cohen, 1988). A statistically significantly higher percentage of Hispanic boys who were at-risk failed to meet the Masters Grade Level standard than Hispanic boys who were not at-risk. The percentage of Hispanic boys who were at-risk and who did not meet this grade level standard was almost five times higher than the percentage of Hispanic boys who were not at-risk and who did not meet this standard. Table 3 contains the descriptive statistics for this analysis.

Concerning the Masters Grade Level standard for the 2018-2019 school year, a statistically significant difference was revealed, $\chi^2(1) = 12{,}487.98$, $p < .001$, Cramer's V of .40, a moderate effect size (Cohen, 1988). A statistically significantly higher percentage of Hispanic boys who were at-risk failed to meet the Masters Grade Level standard than Hispanic boys who were not at-risk. The percentage of Hispanic boys who were at-risk and who did not meet this grade level standard was almost four times higher than the percentage of Hispanic boys who were not at-risk and who did not meet this standard. Delineated in Table 4 are the descriptive statistics for this school year.

Raw Score Comparisons

For the fourth research question regarding raw score performance on the Algebra I End-of-Course exam for the 2016-2017 school year, the parametric independent samples *t*-test revealed a statistically significant difference, $t(78{,}429) = 163.82$, $p < .001$. This difference represented a large effect size (Cohen's *d*) of 1.30 (Cohen, 1988). Hispanic boys who were at-risk answered more than 14 items correctly, on average, than were answered by Hispanic boys who were not at-risk. Descriptive statistics for this analysis are delineated in Table 4.

Table 4. Descriptive statistics for the Algebra I end-of-course raw score performance of Hispanic boys by their at-risk status

School Year and At-Risk Status	*n*	*M*	*SD*
2016-2018			
At-Risk	55,554	23.51	11.58
Not At-Risk	22,877	37.93	10.25
2017-2018			
At-Risk	63,973	24.08	12.21
Not At-Risk	23,302	37.65	12.34
2018-2019			
At-Risk	59,367	25.30	13.17
Not At-Risk	20,176	37.37	14.07

Regarding raw score performance on the Algebra I End-of-Course exam for the 2017-2018 school year, the parametric independent samples *t* yielded a statistically significant difference, $t(87{,}273) = 144.88$, $p < .001$. This difference represented a large effect size (Cohen's *d*) of 1.12 (Cohen, 1988). Hispanic boys who were at-risk answered more than 13 items less correctly, on average, than were answered by Hispanic boys who were not at-risk. Table 4 contains the descriptive statistics for this analysis. Concerning raw score performance on the Algebra I End-of-Course exam for the 2018-2019 school year, the parametric independent samples *t*-test revealed a statistically significant difference, $t(79{,}541) = 110.56$, $p < .001$. This difference represented a large effect size (Cohen's *d*) of 0.92 (Cohen, 1988). Hispanic boys who were at-risk answered more than 12 items less correctly, on average, than were answered by Hispanic boys who were not at-risk. Table 4 delineates the descriptive statistics for this school year.

Discussion

In this multiyear investigation, data on the Algebra I End-of-Course exam performance were compared between Hispanic boys who were at-risk and Hispanic boys who were not at-risk. End-of-Course exam performance was comprised of three grade level standards (i.e., Approaches Grade Level, Meets Grade Level, and Masters Grade Level) and one raw score. Data were obtained for the three school years prior to the COVID-19 pandemic. Inferential statistical procedures yielded statistically significant differences in all three school years for Hispanic boys who were at-risk. In all three school years, Hispanic boys who were at-risk failed to meet all three grade level standards at statistically significantly lower rates than Hispanic boys who were not at-risk. Figure 1 shows the average percentages for the Approaches Grade Level Standard for all three school years.

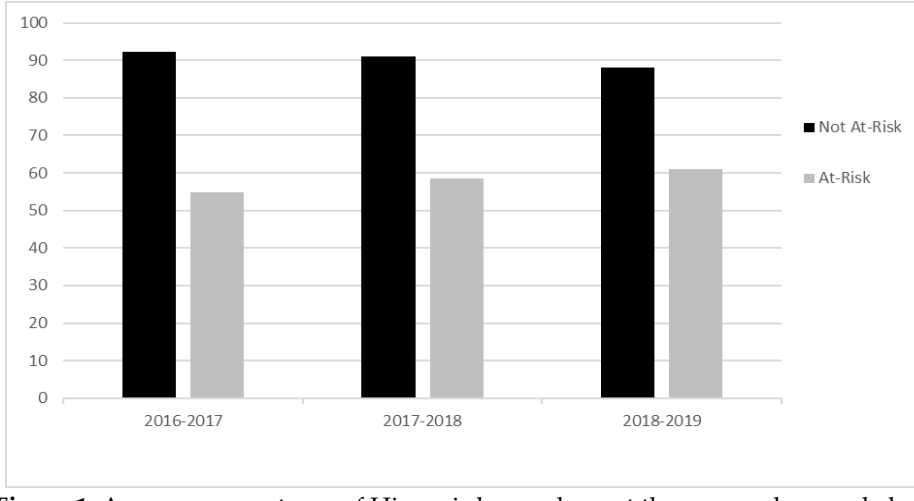

Figure 1. Average percentages of Hispanic boys who met the approaches grade level standard by their at-risk status

Results showed higher percentages of at-risk Hispanic boys failed to meet all three grade level standards in all three school years. For performance on the Approaches Grade Level Standard in the 2016-2017 school year, Hispanic boys who were at-risk failed to meet the standard at a rate of more than 45% compared to less than 8% of Hispanic boys who were not at-risk who failed to meet the standard. In the 2017-2018 school year, Hispanic boys who were at-risk failed to meet the Approaches Grade Level standard at a rate of almost 42% compared to 9% for Hispanic boys who were not at-risk. For the 2018-2019 school year, Hispanic boys who were at-risk failed to meet the standard at a rate of over 39% compared to 12% for Hispanic boys who were not at-risk. he percentages of Hispanic boys who met this standard increased each year, while the percentages of not-at-risk Hispanic boys who met the standard decreased. For the three years investigated, the achievement gap in Algebra I narrowed for the Approaches Grade Level Standard. Figure 2 depicts the average percentages for the three school years.

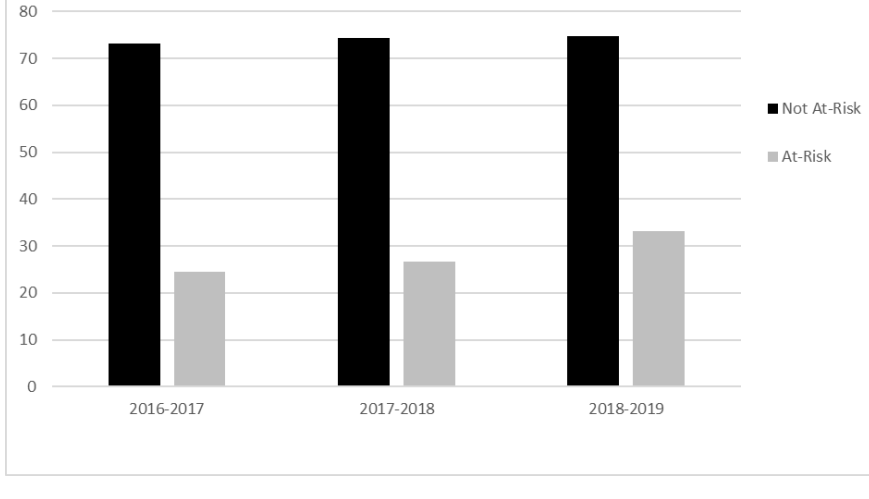

Figure 2. Average percentages of Hispanic boys who met the meets grade level standard by their at-risk status

Results of the Meets Grade Level Standard performance on the Algebra I exam for all three school years were similar to the results of the Approaches Grade Level Standard. In the 2016-2017 school year, Hispanic boys who were at-risk failed to meet the Meets Grade Level Standard at a rate of over 75% compared to a rate of about 27% for Hispanic boys who were not at-risk. Hispanic boys who were at-risk failed to meet the Meets Grade Level Standard at a rate of over 73% compared to almost 26% for Hispanic boys who were not at-risk in the 2017-2018 school year. In the 2018-2019 school year, Hispanic boys who were at-risk failed to meet the standard in Meets Grade Level Standard at a rate of almost 67% compared to a rate of over 25% for Hispanic boys who were not at-risk. For these three years, the percentages of Hispanic boys who were at-risk and who did not meet this standard decreased. The incremental decrease was more for Hispanic boys who were at-risk, narrowing the Algebra I achievement gap between Hispanic boys who were at-risk and Hispanic boys who were not at-risk during this time frame. Depicted in Figure 3 are the average percentages for Hispanic boys for all three years on the Masters Grade Level Standard.

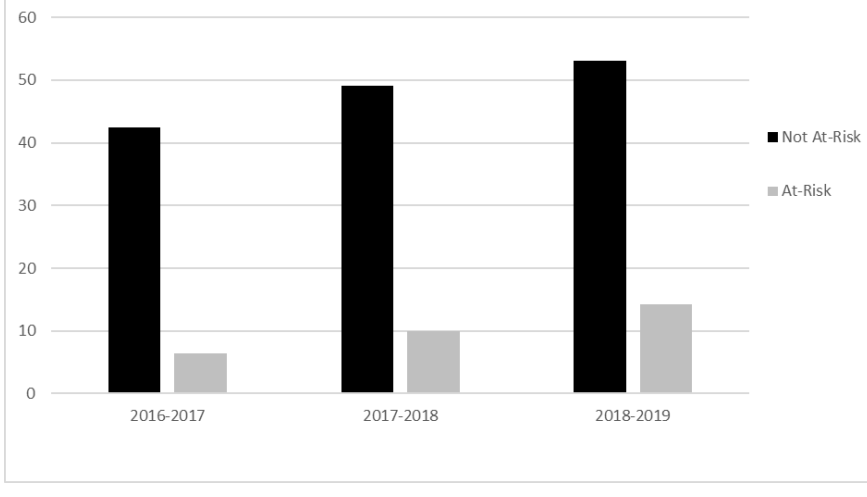

Figure 3. Average percentages of Hispanic boys who met the masters grade level standard by their at-risk status

In regard to the Masters Grade Level Standard performance on the Algebra I End-of-Course exam in all three years, the rate of failure to meet the standard decreased. In the 2016-2017 school year, Hispanic boys who were at-risk failed to meet the Masters Grade Level Standard at a rate of almost 94% compared to a rate of almost 58% for Hispanic boys who were not at-risk. In the following year, Hispanic boys who were at-risk failed to meet the standard at a rate of 90%, and Hispanic boys who were not at-risk failed to meet the standard at a rate of almost 51%. In the 2018-2019 school year, Hispanic boys who were at-risk failed to meet the Masters Grade Level Standard at almost 86% compared to almost 47% for Hispanic boys who were not at-risk. The incremental decrease in the rate of failure to meet the Masters Grade Level Standard was less for Hispanic boys who were at-risk. From 2016-2017 to the 2018-2019 school years, the achievement gap between Hispanic boys who were at-risk and Hispanic boys who were not at-risk increased. The average raw score comparisons for all three years are shown in Figure 4.

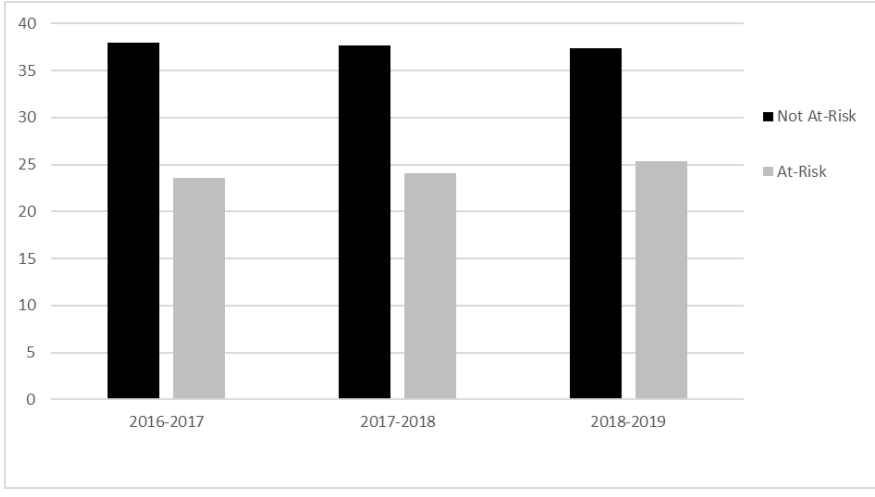

Figure 4. Average Algebra I end-of-course exam raw scores of Hispanic boys by their at-risk status

In raw score comparisons on the Algebra I End-of-Course exam for all three school years examined, Hispanic boys who were at-risk answered, on average, about 13 items less correctly than Hispanic boys who were not at-risk. In the 2016-2017 school year, Hispanic boys who were at-risk answered an average of more than 14 items less correctly than Hispanic boys who were not at-risk. Hispanic boys who were at-risk answered over 13 items less correctly, on average, than Hispanic boys who were not at-risk in the 2017-2018 school year. In the 2018-2019 school year, Hispanic boys who were at-risk answered over 12 items less correctly, on average, than Hispanic boys who were not at-risk. The average number of items answered correctly for Hispanic boys who were at-risk increased incrementally each year.

Discussion

In this multiyear, statewide investigation, the Algebra I End-of-Course exam performance of Hispanic boys was compared by their at-risk status. Higher percentages of Hispanic boys who were at-risk failed to meet all three grade level standards than Hispanic boys who were not at-risk for all three school years. These findings are congruent with the existing research literature. Achievement gaps in mathematics education were established at the national level for Hispanic students from 2017 to 2019 (National Center for Education Statistics, 2022b). Furthermore, the National Center for Education Statistics (2022b) established that the achievement gap was growing during those three school years.

Regarding Texas, 16 consecutive school years (i.e., 1993-2009) of mathematics achievement gaps in Grade 5 were established for Hispanic students by Rojas-Lebouef (2010). In Grade 8 mathematics, Craft (2011) determined that Hispanic students performed lower than state expectations on state-mandated exams for seven consecutive school years (i.e., 2003-2004 through 2009-2010). Alford-Stephens (2016) established achievement gaps in mathematics for Hispanic boys compared to their White and Asian peers. Researchers have documented achievement gaps and higher at-risk status for Hispanic boys and other subgroups (Kent et al., 2017; Kim et al., 2015). These achievement gaps for Hispanic boys were documented after the No Child Left Behind Act and its replacement, the Every Student Succeeds Act.

Implications for Policy and for Practice

Implications for policy and practice can be supported by the findings of this investigation. Policymakers could use the findings in this investigation to implement further safeguards for Hispanic students as the largest and fastest growing population in the state. Algebra I in Texas high schools represents the mathematics foundation for high school students and is an ideal place to identify and address gaps in mastering objectives. Mathematics instruction can be refined in high schools to benefit individual learners based on achievement gaps determined in this study.

School and district administrators can use the findings in this study to identify achievement gaps on their campus by disaggregating the data by race/ethnicity, gender, and at-risk status. The greatest transformations of learning occur in the classroom and leaders need to have the data to support instructors to identify and differentiate students who contribute to the achievement gap due to falling behind in objective mastery. Algebra I achievement gaps identified in this study can be used as a model for high schools to identify trends in student performance in the three grade level standards. High schools have a variety of gaps in each grade level, and focus should be prioritized based on the highest need.

Recommendations for Future Research

The achievement gap and related trends established in this investigation are concerns for Texas school administrators. Future research is necessary to identify the existence of additional achievement gaps. First, future researchers should analyze data from Algebra I End-of-Course exam performance in school years following the COVID-19 Pandemic. Identified in this study were achievement gaps in the last three full school years before schools adjusted their instructional policies due to the COVID-19 Pandemic. Data from this study can be used as a baseline for future research studies in this regard. Second, researchers are encouraged to analyze End-of-Course exam data in one or more of the additional four subjects tested in Texas. Biology, English I, English II, and United States History are all measured for state accountability. Researchers could identify potential achievement gaps in those subjects. Third, future researchers are encouraged to analyze mathematics data from other states to identify possible achievement gaps in other states or at the national level. Finally, future researchers should consider examining additional student subgroups. Presented in this study were data from Hispanic boys and Hispanic boys who were at-risk. Additional studies should examine White, Black, and Asian student performance by gender. Furthermore, analysis of performance data for students in poverty, students who are in special education programs, and Emergent Bilingual students is encouraged.

Conclusion

In this multiyear investigation, the Algebra I End-of-Course exam performance was compared for Hispanic boys by their at-risk status. Data were obtained from the Texas Education Agency for all students who took this exam in the aforementioned school years. Then, only data on Hispanic boys were analyzed. Specifically examined were the percentages of Hispanic boys who met the Approaches Grade Level Standard, Meets Grade Level Standard, Masters Grade Level Standard, and raw score in three consecutive school years (i.e. 2016-2017, 2017-2018, and 2018-2019). Across all three school years, higher percentages of Hispanic boys who were at-risk failed to meet any of the three grade level standards than Hispanic boys who were not at-

risk. Clearly, their instructional needs in mathematics were not being met. Given that these findings are based on the three school years prior to the Covid-19 pandemic, further research studies are warranted to determine the degree to which additional academic losses may have occurred.

Declarations

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References

Alford-Stephens, T. (2016). *Differences in mathematics skills of Texas high school boys as a function of ethnicity/race and economic status: A multiyear statewide study* (Unpublished doctoral dissertation). Sam Houston State University, Huntsville, TX.

Anderson, S., Medrich, E., & Fowler, D. (2007). Which achievement gap?. *Phi Delta Kappan, 88*(7), 547-550. https://doi.org/10.1177/003172170708800716

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Lawrence Erlbaum.

Craft, K. F. (2011) *Academic performance differences among Texas Grade 8 students who are White, Hispanic, or Limited English Proficient* (Unpublished doctoral dissertation). Sam Houston State University, Huntsville, TX.

David, K., & Marchant, G. (2015). Achievement gaps in the United States: Race, poverty, and interactions over ten years. *The International Journal of Assessment and Evaluation, 22*(4), 1-15. https://doi.org/10.18848/23277920/cgp/v22i04/48378

Davis-Kean, P., & Jager, J. (2014). Trajectories of achievement within Race/Ethnicity: "Catching Up" in achievement across time. *Journal of Educational Research, 107*(3), 197-208. https://doi.org/10.1080/00220671.2013.807493

De Clercq, M., Galand, B., Hospel, V., & Frenay, M. (2021). Bridging contextual and individual factors of academic achievement: A multi-level analysis of diversity in the transition to higher education. *Frontline Learning Research*, *9*(2), 96-120. https://doi.org/10.14786/flr.v9i2.671

Field, A. (2009). *Discovering statistics using SPSS* (3rd ed.). Sage.

Fuller, E., Springel, M., & Fuller, G. (2010). *Supporting college readiness: Preparing middle school students for high school success in Texas*. Texas Business and Education Coalition.

Johnson, R. B., & Christensen, L. (2020). *Educational research: Quantitative, qualitative, and mixed methods approaches* (7th ed.). Sage.

Kent, J., Jones, D., Mundy, M. A., & Isaacson, C. (2017). Exploring contributing factors leading to the decision to drop out of school by Hispanic males. *Research in Higher Education Journal*, *32*, 1-19.

Kim, S., Chang, M., Singh, K., & Allen, K. R. (2015). Patterns and factors of high school dropout risks of racial and linguistic groups. *Journal of Education for Students Placed at Risk*, *20*(4), 336-351. https://doi.org/10.1080/10824669.2015.1047019

Kotok, S. (2017). Unfulfilled potential: High-achieving minority students and the high school achievement gap in math. *The High School Journal*, *100*(3), 183-202.

Lubienski, S. T., & Crockett, M. (2007). NAEP mathematics achievement and race/ ethnicity. In P. Kloosterman, & F. Lester (Eds.), *Results from the ninth mathematics assessment of NAEP* (pp. 227-260). NCTM.

National Center for Education Statistics. (2022a). *Racial/Ethnic enrollment in public schools*. Retrieved 9 December, 2023 from https://nces.ed.gov/programs/coe/indicator/cge/racial-ethnic-enrollment

National Center for Education Statistics. (2022b). *Annual reports and information staff: Mathematics performance.* Retrieved 9 December, 2023 from https://nces.ed.gov/programs/coe/indicator/cnc/mathematics-performance

PEIMS Data Standards. (2018). *Public Education Information Management System Overview.* Retrieved 20 November, 2023 from https://tea.texas.gov/Reports_and_Data/Data_Submission/PEIMS/PEIMS_-_Overview/

Rojas-LeBouef, A. M. (2010). *Differences in the reading and math achievement among students who are Hispanic, Limited English Proficient, or White: A multi-year study* (Unpublished doctoral dissertation). Sam Houston State University, Huntsville, TX.

Rojas-LeBouef, A., & Slate, J. R. (2012). The achievement gap between White and non-White students. *International Journal of Educational Leadership Preparation, 7*(1), 1-61.

Slate, J. R. (2023). *Communicating your statistical findings in a formal and scholarly way: A guide for graduate students, faculty, and educational leaders.* ICPEL Publications. International Council of Professors of Educational Leadership. Retrieved 14 November, 2023 from https://www.lulu.com/shop/john-slate/communicating-your-statistical-findings-in-a-formal-and-scholarly-way-a-guide-for-graduate-students-faculty-and-educational/paperback/product-vprd8v.html

Texas Education Agency. (2019). *STAAR End-of-Course (EOC) assessments interpretive guide*. Retrieved 4 December, 2023 from https://tea.texas.gov/sites/default/files/2018_STAAR_Interpretive_Guide_EOC_final_tagged.pdf

Texas Education Agency. (2021). *Texas academic performance report*. Retrieved 4 December, 2023 from https://rptsvr1.tea.texas.gov/cgi/sas/broker?_service=marykay&_program=perfrept.perfmast.sas&_debug=0&ccyy=2021&lev=S&prgopt=reports%2Ftapr%2Fpaper_tapr.sas

Texas Education Agency. (2022). *Texas Student Data System: Texas Education Data Standards.* Retrieved 17 December, 2023 from https://texasstudentdatasystem.org/TSDS/TEDS/TEDS_Latest_Release

U.S. Census Bureau. (2017). *Number of Hispanic students more than double in 20 years: Big increase in college enrollment.* Retrieved 14 November, 2023 from https://www.census.gov/library/stories/2017/10/hispanic-enrollment.html

Uline, C. L., & Johnson, J. F. (2005). Closing achievement gaps: What will it take? *Theory Into Practice, 44*(1), 1-3. https://doi.org/10.1207/s15430421tip4401_1

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