This is the third issue since the rebranding of the journal as Voices for Educational Equity with a broadened mission to become more national and international in scope, with a newly established editorial board, an invitation to scholars and scholar practitioners to submit articles that will be refereed and expanded content to include book and media reviews along with our established format of scholarly articles and opinion columns. Editorial board members will review issues for final editorial approval before they are posted. The journal’s new name, Voices for Educational Equity, better reflects contemporary educational priorities, including growing societal concerns about impacts of inequity. The journal will continue to highlight scholarly research and innovative ideas and practices on emerging as well as persistent longtime issues, and to invite the perspectives of all stakeholders to promote a productive dialogue. The journal will continue in its “open access” format and be posted twice each year.

Almost since the 1960’s when schools began to get serious across the nation about implementing school desegregation in the wake of Brown v. Board of Education, educators have advocated a variety of solutions to make schools more inclusive and to raise the educational achievement of minority students. Beginning with school busing in the 1960’s, a variety of approaches have been
put in place, including widespread tutoring and mentoring in the 1990’s and *No Child Left Behind* during the Bush years. Currently, DEI (Diversity, Equity, Inclusion) is in vogue, riding a strong tailwind from the Black Lives Matter movement, growing progressivism in the Democratic party, and the focus of educators on evidence and outcomes based assessment of school success. DEI has taken on additional urgency since the 2020 murder of George Floyd, public outrage over police murders of young Black men, and the growing controversy over “critical race theory” in determining what will and will not be taught about the United States’ troubled history of slavery and racism. This issue of *Voices* addresses DEI issues, especially around culturally responsive teaching and implementation of Illinois new CRTL standards and NSF funded Noyce scholarship STEM programs, plus a look at DEI in community college programs.

Articles and columns for publication in *Voices for Educational Equity* should be submitted as Word document email attachments to Jerry Berberet, Ph.D., editor-in-chief (wgberbert@aol.com). Case studies addressing equity concerns are especially welcomed. Articles and case studies should be in the 2,500-5,000 words range and include a short author bio, an abstract of 100-200 words, a brief review of relevant research literature bearing on the article subject, a discussion of findings and results, a conclusion, and a reference bibliography. Columns are opinion pieces, ordinarily of 500-1,000 words, reflecting the views of the author. Book and media reviews should be 500-750 words in length. Authors are invited to email Jerry Berberet or call him (850-766-2656) to discuss a potential submission, request referee protocols, or simply to ask questions. Past issues of the journal can be found on our website, [http://www.center4success.com/](http://www.center4success.com/)

Detailed information regarding Call for Proposals for upcoming issues begins on page 79 of this issue. The themes for the next two issues are:

*Voices* Future Issue Call, Volume 19, Number 1, “Social Emotional Learning (SEL)” (Deadline for Submissions, October 15, 2022)

*Voices* Future Issue Call: Volume 19, Number 2, “Educator Wellness” (Proposed Submission Deadline, January 30, 2023)

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Call for Article Submissions and Future Themes
Publisher’s Column: “Diversity, Equity and Inclusion”
by Jan Fitzsimmons

Author Bio:
Jan Fitzsimmons, Ph.D., is President and Executive Director of the Center for Success in High-Need Schools Inc., a partnership of comprehensive college and university schools of education and PK-12 schools in Illinois that provides a forum for dialog and subsequent action to recruit, prepare and retain extraordinary teachers and leaders for all schools - especially those serving marginalized and low-income students. A published author, Fitzsimmons has served as a college administrator and faculty, principal and teacher and founder of several successful organizations including the Junior/ Senior Scholars and Promise Teacher Corps serving historically marginalized youth for 35 years. Fitzsimmons is also the publisher of Voices for Educational Equity. She may be reached at jan@center4success.com.

Diversity, Equity, and Inclusion (DEI), what? We have heard angry parents at school board meetings vociferously claim it is code for CRT—Critical Race Theory—and, not something they want taught to their children.

DEI and CRT are not one in the same, and in this edition of Voices, authors share their insights to a multiplicity of ideas that make up the components of and conversations around the former, Diversity, Equity and Inclusion, words that appear not only among the strategic priorities and plans of Fortune 500 companies, but also that appear in future-forward organizational mission statements around the world—including PK-12 school districts, colleges and universities—and, in strategic plans for community colleges! The pandemic dramatically affected education at all levels across the nation argues Rhinerson in his DEI lead article focusing on entrepreneurial education. This article is an unusual inclusion in Voices, as it does not focus on K-12 or Teacher or Leader Preparation, but it does take a close look at the way(s) in which the pandemic is derailing the pipeline to college especially for diverse students. Rhinerson offers several pivots that he sees as critical to welcoming both traditional and, especially, non-traditional learners. Perhaps K-12 and teacher and leader preparation programs should also take a closer look at how to welcome and engage adults who are out of work and how entrepreneurial education approaches could address the needs of a more diverse population whose post pandemic workplace has been and will continue to be “dramatically changed!” Consider Rhinerson’s words as you read the articles that follow.

While big business and colleges in general are investing in DEI officers and strategic DEI priorities, colleges of education have been immersed in this work for some time through work on culturally responsive teaching. In their article, Diaz and Williams argue that cultural competence “is
a necessity…whose primary goal is to provide equitable access to quality education…” The authors identify four areas of cultural competence they believe all educators should develop to be effective. Their article describes each of these areas and provides examples of behavior deemed to represent competence in each area. Moreover, the authors argue that to have a truly equitable education for each and all youth, all teachers must demonstrate cultural competence.

In Berberet’s article (a synopsis of Monson’s March 2, 2022, Center for Success webinar), Monson describes the 8 standards of Culturally Responsive Teacher and Leader Standards that the Illinois State Board of Education have identified and adopted for teacher preparation. Other states are developing standards, too. It is interesting to note that these standards were adopted for use in teacher and leader preparation programs with seemingly no plan to adopt them for PK-12 schools. Hmmmm! This article will provide a foundation in understanding the Culturally Responsive Teacher and Leader (CRTL—not CRT) standards as adopted by the Illinois State Board of Education.

In Chatterjee and McDaniel, the authors take pause to discuss the importance of just one of the Illinois Culturally Responsive Teacher and Leader Standards that focuses on “Self-Assessment and Relationship to Others.” This standard is critical say many because it is the foundation for all other teaching and learning not just learning in classes and clinical experiences for teacher and leader preparation. In this article, each author shares their journeys to deeply understand what it means to examine one’s experiences and see the multiplicity of experiences that each individual brings into the classroom. Doing this, they argue, allows teachers/professors not only to teach about a “Standard” in a transactional, complementary way, but also “to live the Standard” in how they interact with students to prepare teachers and leaders as well as how they conduct their classes and work with students and colleagues, all who are global citizens.

Monson takes this work to another level and describes how a community initiative utilizes the Culturally Responsive Teacher and Leader Standards to address equity in the teacher pool in efforts to increase the number of teachers who more closely match the student demographics in their community. Monson explains how Rockford University used the Culturally Responsive Teacher and Leader Standards to align mindsets, integrate course work and then create win-win initiatives to advance learning in their community. Rockford presents a reliable model that could be adapted to many campus-community partnerships, especially those who look to advance teaching and learning in diverse school communities.

How do you think about students whose primary language is not English? Do they need intervention? Do they need “to be fixed?” Or, do we see the rich language and cultural experiences each Latinx student brings to the classroom? Do we use those assets to advance literacy learning? In
this article, Pichardo and Montenegro observe and study a first-grade classroom. The authors take a critical look at the way teachers understand bilingual students and develop – in their terms - literacy “praxis.” They ask us to imagine our Latinx students as “language architects” and in doing so, Pichardo and Montenegro make seven recommendations for developing “praxis” that then addresses equity and advances learning in the literacy classroom.

While Monson describes a community partnership that works to increase the pool of diverse teachers and thus advances student learning, Kumar and Moffitt take a narrower focus and examine increasing STEM teachers in high-need schools through the support of grants from the National Science Foundation and one of its key programs, the Robert Noyce Scholarship Program. Kumar and Moffitt review the evaluations of eleven programs with 989 participants to outline the findings regarding a myriad of questions. Ultimately, the review of evaluations wants to know, “How effective has the NSF Noyce program been?” Kumar and Moffitt share a summary of the common recommendations from these evaluations, as well as some challenges that may suggest implications for policy change.

Bixby and Landando also focus our DEI thinking on NSF and the Noyce program. How effective is the NSF Noyce Program? Bixby and Landando explore this question through student teacher evaluations. In a comparative study of 44 Noyce and non-Noyce candidates at one institution, Bixby and Landando examine categories and sub-categories of final student teacher evaluations. How different might specially prepared Noyce candidates perform versus non-Noyce candidates based on the categories and sub-categories of a common student teacher final evaluation? Explore what they learned. What do their findings suggest as we consider the equity of STEM curriculum, pedagogy, and education of secondary students in high-poverty schools?

To conclude this issue, Martha Wilkins reviews An Uprising for Educational Justice ‘Black Lives Matter at School’ edited by Jones, Hagopian and Tometi. Wilkins describes this book as an anthology that “chronicles the work that has already been done and provides a playbook for getting started.” “The work” discussed through story after story is a valuing of black lives through teaching practices and policies that promote critical anti-racism experiences for youth and that are sometimes even led by youth. Wilkins “two thumbs up” review outlines a variety of foci for all readers and activists whether just beginning or fully knee-deep in the journey.

While it is not specifically taken up in this issue of the journal, “Diversity, Equity and Inclusion” are not concepts that equate to, are code for, or synonymous with Critical Race Theory. Diversity explains the changing demographic make-up of our classrooms, our nation, and our world. Equity and inclusion are concepts that refer to the ways we believe children and all people should be treated in a progressive, advanced nation that believes in the importance of a democratic society.
Equity is simply a standard for treating our children and all children fairly. As for inclusion, we want our children to feel welcome, included, and connected to their schools, their peers, and their teachers. We want teachers and leaders to acknowledge the assets and gifts children bring into our classrooms and schools, and into the world, assets that are important tools contributing to their learning. In this journal we have addressed a few DEI issues, but these are big ideas and we have just begun to scratch the surface. So, as you read, please think about these questions:

What is the place for “Diversity, Equity and Inclusion” in today’s world? Your world as a Voices reader? Are you culturally competent? How will you infuse DEI in your classroom? Courses? Life? Will you be compliant or “live” the ideas? How will you design your journey? Or, contribute to the journeys of your students? Will you take action around policies that advance learning for one and for all?

So, if DEI and CRT are not synonymous, what is CRT? Critical Race Theory is a 40-year-old theory or concept or way of thinking about why there are such deep divides among the races in America in various aspects of life, primarily in economics. It is generally part of graduate coursework in which analytical theories are used to understand systems and it is not a part of any PK-12 curriculum.

However, what is a part of PK-12 education and what we should embrace with passion is the way each child feels when they come to school and enter our classrooms. Ideally, it is along the lines of:

“I’m different and not only is that okay, it’s cool. My difference adds value to what we will do today and tomorrow. I know that because I see myself in the pictures in my classroom, in the books I read and in the way I listen to others, and they listen to me. And my friends they are different, too, and I get to learn about their lives because what has happened to them helps me to be a better person, and to understand the world a little more, so that I can make the world better for me, my family, and even for my kids and for their kids!”

It is a well-known axiom that we may not always remember what someone said, but we will remember how someone made us feel. What will it take for all children to feel good, included, connected, understood, appreciated, and admired? Embrace diversity, advance equity, and always make sure each one is at the table---be inclusive.
Diversity, Equity, and Inclusion Through Entrepreneurial Education at Community Colleges
by Bernie Rhinerson, MPA

Author Bio:
Bernie Rhinerson is an elected trustee of San Diego Community College District. Bernie is a graduate of San Diego State University and a former adjunct faculty member in the SDSU School of Public Affairs. He is a retired marketing consultant living in San Diego, CA and may be reached at brhinerson@sdc.edu.

Editor’s Note: This article appears in Voices to illustrate the widespread nature of DEI concerns in education and to feature ambitious efforts to take advantage of DEI opportunities in the community college sector of higher education. Similarly ambitious efforts at four-year colleges and universities will be necessary to diversify the preK-12 teaching force and to create a sufficiently robust pipeline to overcome the current teacher shortage crisis.

The San Diego Community College District is all in for entrepreneurial education which is a growing trend at community colleges throughout the nation. Our commitment to entrepreneurial education programs is already paying off for our diverse students as we transition out of the global pandemic and return to a more normal state at our college campuses.

This commitment is becoming even more important as we emerge from the pandemic which has dramatically impacted the enrollment of racial and ethnic minorities in higher education. According to the National Student Clearinghouse Research Center, overall college undergraduate enrollment year over year fell by 3.6 percent in fall 2020 and by 3.1 percent in fall 2021. Total undergraduate enrollment declined 6.6 percent from fall 2019 to fall 2021, representing a loss of just over a million students. For community colleges the trends are even worse. According to a March 2022 memo from the California Community Colleges Chancellors office, “Fall 2021 headcount is down approximately 7% from fall 2020 and down 20% overall compared to fall 2019, a cratering of more than 300,000 students over those two years.” Even more troubling in this data is the trend that students from racial and ethnic minorities have led this decline, exceeding 20% fewer students over the last two years attending California’s community colleges.

For community colleges to attract diverse students back to campus, students will need to be assured that they can enroll in educational programs that will give them the skills to pursue successful and lucrative careers. Entrepreneurial education programs offer students exciting opportunities to learn how to translate their dreams into a reality, how to start their own business or turn their ideas into products.

The career opportunities for students who pursue entrepreneurial education are excellent which is highlighted by data from the San Diego region. In our region, small businesses are a primary driving economic force and entrepreneurship is a viable field for students which was shown in a 2017 survey by the San Diego-Imperial Center of Excellence for Labor Market Research:
• San Diego and Imperial counties are home to more than 26,000 startups and small businesses.

• In San Diego County, 95% of business establishments employ fewer than 50 employees.

That same survey found that more than 1,800 San Diego and Imperial County community college students who exited a business and entrepreneurship program experienced a 37% increase in earnings. And a 2019 survey of independent “gig economy” workers in our region found that more than 30% wanted to receive more training on how they can market themselves, increase sales and manage finances.

The ethnic diversity of our immigrant community is another driving force for small business in our region, which is no doubt similar across the country. In 2016, there were 799,357 immigrants living in San Diego County or 24.1% of the population. According to the U.S. Immigration Policy Center at the University of California San Diego, immigrants are 23% more likely to be entrepreneurs and 32.7% of entrepreneurs in San Diego were immigrants in 2016. That same study found that immigrant entrepreneurs generated $1.4 billion in business income and that immigrants are founding 1/4th of all new businesses in San Diego County.

Entrepreneurial education is also a great way for colleges to achieve their diversity, equity, and inclusion goals by providing a high demand career pathway to a diverse student population. In 2020/21, Hispanic students represented 46% of the enrollment in California’s community colleges, with Black students at 6%. With that diverse student population, the San Diego Community College District has responded to the demand for entrepreneurial education by offering a full range of degrees and certificates in entrepreneurship and small business. Most importantly, all of our degrees include courses in soft skills such as communication that are so important for students to be successful in the workforce and the entrepreneurial environment.

An April 2020 study of job postings in the San Diego region by the Center for Excellence for Labor Market Research found that the most important 21st century employability skills in online job postings included skills in oral and written communications, collaboration, adaptability, initiative and critical thinking among others. To prepare our students with the needed communication skills on this list, our colleges offer a variety of additional courses that prepare our students in those areas. The goal of entrepreneurial education is not only to teach specific job skills but to help students gain understanding and practice with essential skills in today’s world such as teamwork, communication, adaptability, creativity, problem solving, conflict resolution, and more.

Each of San Diego’s four community colleges has programs specifically designed to support students who want to pursue an entrepreneurial career.

At Miramar College, in addition to the program course work, students are offered entrepreneurship workshops, start-up support services, intensive mentorship, law workshops, and clinics in coding,
design and branding. Miramar College is home to the REC Innovation Lab, a new business incubator that is home to more than 40 student-founded businesses. Student business founders represent the diversity of our region. In 2020 51% of REC student founders were women, 71% were racial or ethnic minorities, 18% were black, and they range in age from 15 – 72 years. By 2024, Miramar College expects to be granting more than 200 Associate Degrees in Entrepreneurship a year.

San Diego City College offers its diverse student population on-campus opportunities to actually lead businesses, including a student-run food pantry and clothing store “Fantastique,” as well as the Business Resources Center. City College offers Associate Degrees in Small Business Management Entrepreneurship and special certificates for emerging businesses like a certificate that explores the fundamental practices of managing a cannabis dispensary with training for the skills needed for this new industry, including management, legal compliance, accounting, and security.

San Diego Mesa College offers a Culinary Arts Degree or Certification that prepares students to start their own businesses. As one of only a few culinary programs in the nation that operates a classroom-driven restaurant that's open to the public, students gain first-hand experience modeling food preparation techniques, food safety, sanitation, and menu planning while working with modern equipment in newly renovated facilities. Coupling professional development and technical adeptness with a foundation in business practice, students gain the culinary management skills needed to start a lucrative business.

This Mesa College program has many stories of diverse students leaving the program to create their own successful businesses. Just one story is Mesa College Culinary Arts alum Inno Pamaran, who owns two Filipino specialty food companies, GudMudFud and Melk. Recently, Inno let his former professors know that he was struggling to grow his business because he was unable to get his special dough made in large enough quantities to keep up with demand since he was doing everything by hand. Therefore, he was not reaching his production goals due to equipment constraints. His professors contacted the Mesa College Foundation to secure a grant to allow Inno to purchase a 20-quart mixer and proof box, the two pieces of equipment he needed to move his businesses to the next level.

Our College of Continuing Education was the 2019 Entrepreneurial College of the Year, recognized by the National Association for Community College Entrepreneurship. NACCE is the nation’s leading organization focused on promoting entrepreneurship through community colleges and represents over 340 community and technical colleges that serve more than three million students. This non-credit program college offers training certificates of interest to budding entrepreneurs including the Small Business Planning Certificate which is a two-course certificate program that provides students with the principles, practices, strategies, and requirements needed to form and manage a small business.
We are at a critical time in history when colleges must provide career-oriented education and re-skilling to prepare students for the post pandemic economy. This is highlighted in a recent report by the national Association of Community College Trustees titled “Reskilling for the Pandemic Recession and Recovery.” This report stresses the importance of community colleges in workforce development and concluded that colleges can improve re-skilling programs by increasing financial aid, focusing on the unique needs of adult and out-of-work learners, and offering hybrid educational options.

As a trustee at the San Diego Community College District, I am advocating for additional funding for the expansion of entrepreneurial education in our community college system and to ensure that our entrepreneurial programs can grow to provide even more opportunity for our diverse student population by helping students find success in entrepreneurial careers.

In the post-pandemic world, the workplace will be dramatically changed and our educational programs must evolve to attract a diverse student population. Independent gig work, small businesses formation, and virtual online businesses will continue to grow after the pandemic, offering huge opportunities for diverse students who are educated and prepared with entrepreneurial skills.
Understanding the Illinois Culturally Responsive Teacher and Leader Standards:
A Synopsis of Dr. Kelly Monson’s Center for Success Professional Development
Webinar, March 2. 2022
by Jerry Berberet

Author Bios:
Dr. Kelly Monson, Ed.D., is director of graduate studies and assistant professor of education at Rockford University. She has fifteen years of experience in school administration and chairs the Center for Success task force on culturally responsive teaching and leading standards. Her doctorate is in educational leadership. She may be reached at kmonson@rockford.edu.

Dr. Jerry Berberet is editor in chief of Voices for Educational Equity. He can be reached at wbergeret@aol.com.

Introduction
The Illinois State Board of Education (ISBE) approved state culturally responsive teaching and leading standards (CRTL) in March 2021, following development by a statewide task force including teachers, professors of education, school administrators, and other stakeholders. They were designed as a guide for a developmental process beginning with self-reflection on the part of each current and future teacher and leading to a reshaping of teacher preparation and school curricula with inclusion of the background and culture of each individual student in the learning process and outcomes of equity, liberation, and justice. The standards anticipate that each educator will need to undergo a personal transformation involving examination of one’s beliefs, attitudes, and values to determine how one’s background influences one’s teaching. This self-assessment would serve as a prelude to changing one’s teaching style and methods in order to bring each student’s cultural background and identity into active collaboration with their learning. Thus, the standards recognize that each student’s personal cultural and experiential background forms the lens for learning that each student brings to the classroom, an essential framing for optimal student learning and achievement of educational equity, liberation, and justice.

In addition to this educator self-examination and partnership with students in the learning process, the standards call for partnership with parents and community designed both to create home and community support for student learning and to remove elements of oppression that may represent obstacles to learning and student development. Removal of such oppression may involve changes in school policies and structures, as well as outreach to parents and community leaders to create an optimal home and community environment. The holistic approach of the CRTL standards also calls both for redesign of teacher education programs so that they might prepare pre-service.
candidates able to transition smoothly and effectively to the realities of teaching in schools with diverse student populations and for redesign of school curricula and pedagogy to achieve student inclusion and the goals of equity, liberation, and justice.

In their holistic framing the Illinois CRTL standards represent a thoughtful and realistic approach to solving generations of student under-achievement, especially for students on the margins. In spite of the ideological divisions rampant in American society today, most thoughtful persons recognize the central role their own background and culture plays as the framework they bring to their learning and personal growth and development, and how their most effective and memorable teachers were able to tap into their personal identity and learning style to facilitate their achievement as a student. The new Illinois CRTL standards build upon this realistic foundation to optimize both student and educator success, while advancing the role of education in addressing deeply rooted and persistent issues of inequity, inclusion, and justice in the larger society.

**Illinois CRTL Standards**

ISBE established eight CRTL standards with commentary to explain and guide implementation of each. They call on educators to become *intentional* in all aspects of standard implementation:

1. Self-Awareness and Relationships with others
2. Systems of Oppression
3. Students as Individuals
4. Students as Co-Creators
5. Leveraging Student Awareness
6. Family and Community Collaboration
7. Content in all Curricula
8. Student Representation in the Learning Environment

**Self-Awareness and Relationships with others**

This standard establishes that the process begins with self-assessment regarding personal background, attitudes, and values and their effect on one’s teaching, as well as how one connects with and communicates with others. It calls for an asset-based mindset regarding one’s students and an understanding of how identity shapes attitudes—one’s own and one’s students. It requires a commitment to know one’s students better and to bring this knowledge into one’s teaching—the incorporation of student backgrounds and cultures into one’s teaching and student learning.

**Systems of Oppression**

This standard asks educators to identify environmental and institutional factors that may hinder student learning. It requires understanding of how student experiences shape their learning, especially how systems of school discipline and punishment negatively affect students of color, e.g.,
systems of discipline are often established on “white norms” different than the discipline and punishment norms familiar to students of color. This standard calls for educators to look for inequities that may negatively affect student learning and to seek restorative practices that will help to correct such inequities. Addressing systems of oppression and supporting equitable and just outcomes is a continuing challenge and process for educators and their schools.

*Students as Individuals*

Implementation of this standard requires educators to create safe environments supportive of students’ “authentic selves,” where their cultures, language, and modes of thinking and communication are valued. This standard calls for instruction to be based on who students are as individuals and the learning styles they bring to the classroom. It asks educators to solicit from students information on their personal backgrounds, ancestry, and experiences that shape their cultural identity and to base their understanding of student identity on what their students tell them.

*Students as Co-Creators*

This standard asks educators to become intentional in working with their students so as to become co-creators with their students in changing the school environment and designing student learning. Imperative in this implementation is the need for educators to be good listeners in bringing what students say about themselves into the learning process—assessing and responding to student needs, developing culturally responsive lessons, incorporating content from student cultural backgrounds, honoring student communication and learning styles, and nurturing student leadership. Co-creation is a continuous process.

*Leveraging Student Awareness*

This standard focuses on the process of empowering students to develop their own “voice” and to become self-advocates in partnering with educators in creating an inclusive learning community. It acknowledges directly that students as co-creators become leaders in creating a richly textured and diverse school culture and community culture that benefits all and contributes to a more just, equitable, and inclusive American society.

*Family and Community Collaboration*

This standard asks educators to extend what earlier standards call for within the school to partnering with parents and the larger community. It advocates that educators extend their cultural understanding by seeking from parents and the larger community cultural knowledge and expressions of self-identity as a first step in deepening parent and community relationships. A key part of this standard is the importance of educators supporting learning at home and engaging with parents in a collaborative way in this dimension of student learning. This standard underscores Hammond’s definition (2015) of culture as the critical way the brain makes sense of the world. In her webinar
remarks Kelly Monson expanded on this foundational concept by defining the “Iceberg concept of culture,” as the metaphor that 9/10 of culture is below the surface, suggesting how shallow our understanding of culture actually is and how we barely scratch the surface in understanding a culture different than our own. She emphasized that empathy is critical in gaining trust and credence in efforts to understand and respect a different culture.

**Content Selections in All Curricula**
In developing curricular content educators must be especially conscious of all eight CRTL standards to assure that the intentionality the standards call for is represented in the how and what of teaching. Educators should articulate how marginalized students are represented in the curriculum, how technology is used to achieve digital literacy, and how the curriculum encourages “asset thinking” regarding traditionally marginalized communities. The curriculum should be assessed for cultural biases and discussions should be promoted at the intersection of cultures and communities to raise consciousness of the characteristics, contributions, needs, and differences among each.

**Student Representation in the Learning Environment**
This standard is a reminder of a common theme through all eight standards — a call for inclusion of all cultures and communities in the learning environment schools serve. Not only should students see themselves represented in course materials, but the curriculum should reflect student diversity. Course content should create a “ripple effect” reflecting the impact of representing diverse student cultures continuously throughout the curriculum.

**Rockford University Education Pathway Program**
Monson completed her webinar with a description of Rockford University’s Education Pathway, a comprehensive cross-cultural teacher education cohort program in partnership with Rockford Public Schools that culminates with a master’s degree in urban education and placement of graduates as teachers in the Rockford Public Schools. A “grow our own” pathway to diversify the largely white teaching force for Rockford’s significantly diverse student population, the Rockford University Urban Education Master’s Degree program, emphasizes values of responsiveness, advocacy, integrity, scholarship, and equity as a programmatic model implementing the Illinois CRTL standards. As a culmination of this program, cohort members complete a rigorous action research project addressing implementation of the CRTL standards in their teaching. All Rockford University pre-service and graduate education students also take a cross-cultural education course to help prepare them for realities of teaching in schools where implementation of the standards may not have occurred at all or have only just begun.

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Center for Success “CRTL Resources” Website
Monson also mentioned that the Center for Success task force on culturally responsive teaching and leading has worked with the Center to develop a CRTL resources website to assist educators with curricular materials and other resources helpful in implementing the CRTL standards in teacher education programs and in school settings.

Reference
Beginning with Ourselves: Pivoting for Deep Understanding and Implementation of the Culturally Responsive Teaching and Leading Standards
by Ava Belisle-Chatterjee and Gloria McDaniel-Hall

Authors’ Bios:
Ava Belisle-Chatterjee, Ph.D., is currently an associate professor in the humanities, history, and social sciences department at Columbia College Chicago. For many years, she served in various capacities in Columbia’s former Education Department, including as the department’s founding chairperson. Prior to her work in higher education, she was a bilingual teacher at the elementary school level for the Chicago Public Schools. Dr. Belisle-Chatterjee has co-authored textbooks for teaching Spanish, as well as co-authored components for making standards-based mathematics accessible to English language learners in a leading math textbook series. She can be reached at achatterjee@colum.edu.

Gloria McDaniel-Hall, Ed.D. currently serves as an assistant professor in the Educational Leadership Department at National Louis University in Chicago. She has been an elementary school teacher, principal, and director during her 38-year tenure as an educator. She is passionate about the fact that education is the human rights issue of our time. She has devoted her life to equity for all members of the school community. Dr. McDaniel-Hall is also an author who specializes in children’s books devoted to social-emotional learning topics. She can be reached at gmcdanielhall@nl.edu.

Abstract
Implementation of new, mandated standards can be met with different reactions, including fear of the unknown and the uncomfortable. In this paper, the authors take on the challenge of addressing the unknown and the uncomfortable within themselves, as they consider what it truly means to incorporate the State of Illinois’ Culturally Responsive Teaching and Leading (CRTL) Standards. Dr. Shawn Ginwright’s Four Pivots are offered as a framework for doing this difficult work. The paper ends with a call to action for more such reflective work to be done as part of the efforts in higher education to make the CRTL Standards an integral part of the preparation of teachers and leaders.

Keywords: Culturally Responsive Teaching and Leading Standards, CRTL Standards, Pivot, Ginwright

“I’ve come to realize that as a society, we don’t really do a good job at preparing, teaching, or training people how to be vulnerable, cultivate empathy, practice self-reflection - all the stuff that makes us human” (Ginwright (p. 3).
Introduction

We are two professors at different universities, who teach in very different programs, who have varied backgrounds and experiences - but both with a passion for not only taking our work to the next level, but also for ensuring that this work has a positive, far-reaching impact on those whom we instruct and who will be future teachers, leaders, and citizens of our country. Everyone needs to engage in this work in order for true change to be realized. Therefore, we, as women of color, are in agreement that we need to engage in this work as deeply as everyone else does. We are convinced that the Culturally Responsive Teaching and Leading (CRTL) Standards (ISBE, 2021) enacted by the state of Illinois are a very important step in the right direction. We have each spent the past academic year learning to interpret and actualize these eight standards in various ways. We moved through the list of them in the ways we typically move through change. We got the list, read some books, listened to some podcasts, etc. We even joined a writing collective so that we could take the time to do some additional writing on the topic of culturally responsive teaching and leading. Through our work in our collective, we realized that Standard a. was “still calling our names.”

Background

Standard a. calls for us to examine ways to become more self-aware and to examine our relationships to others. Further, the language outlined in Standard a. proposes that by doing these things, we will become reflective and gain a deeper understanding of ourselves and the ways in which we impact others. By doing this, Standard a. purports that this work will result in more “cohesive and productive student development as it relates to academic and social-emotional development for all students.” We would assert that when we really engage in the work required to begin our focus on this standard, we will also become better people and engage with everyone differently, not only our students. Therefore, we decided to back up and more deeply examine the actions needed to prepare ourselves for the work required in Standard a. and the ten sub-standards it includes.

We will start by giving a bit of background on the work we have done, and we will then propose what we feel could be the next steps that need to take place within all of us in order for the true impact of these standards and particularly Standard a. to be realized. Our proposed next steps are in direct correlation with the most recent work of Shawn Ginwright (2022). He advances the idea that there are four “pivots” that need to be taken in order to ensure that we are doing deep, reflective transformational work vs. the transactional ways in which we typically approach new endeavors. He describes a pivot as “a small change in direction from a single point where we are” (p. 16). Ginwright advocates that we do not need to completely change direction, or our ways of being, but that we make small changes in our orientation (pivots) by continually growing in terms of becoming more aware of ourselves and how we interact in the world.
Ginwright further suggests that before beginning this work, we all need to “heal” from the myths that sometimes guide our thinking and embrace alternate truths that can guide our work and our lives. Engaging in this healing work will lead to a fundamental shift in our values and ways of thinking, connecting, acting and working together. Doing this deeper work challenges us to do the work on ourselves that is necessary to more effectively and equitably work with and for others.

*Gloria’s Journey*

During the past year, I have been a member of a group of professors from various departments within my university who are committed to equity and social justice work. We volunteered to be part of this group charged with delivering information about the CRTL Standards to our college of education in order to satisfy the requirements of the state and meet the deadlines for compliance. We needed to produce the plans that outline for the state how we will ensure that teachers and leaders know these standards and that they are prepared to make them a reality in their buildings.

When we began the work, I was struck by the depth of the standards and all of the sub-standards. I initially had the impression that just to get through Standard a. required that we become reflective and examine ourselves and our relationships to others. That felt like a huge undertaking. However, in addition, the sub-standards suggested that we do things like: understand and value the fact that we all have multiple levels of our lived experiences, that we engage in self-reflection, that we explore OUR OWN intersecting identities, critique our institutions, and even assess how biases affect our teaching. In my opinion, just the work we needed to do on this standard alone could have taken the entire year. In fact, it felt like the work required to address this standard alone might be never-ending.

We used the resources the state provided (which are outstanding), but it still always felt as if we were only touching the surface. We proceeded to “unpack” Standards a. through h. in a similar fashion. By the end of the year, we had *covered* them all. We made changes to our syllabi and updated some of our assignments. We even developed innovative ways of learning more about our students. It still felt as if I had not done the deep, inner work that was needed. I shared my thoughts with my committee and we decided that during the coming year, we would dig in deeper and more intentionally. We just needed a resource to guide us. Then I heard the Unlocking Us podcast episode, hosted by Dr. Brené Brown, who was interviewing Dr. Ginwright, and I became convinced that by using the strategies and questions that Ginwright proposes in his text, we could make huge strides.
**Ava’s Journey**

In the fall of 2020, I transitioned to a new role in my tertiary teaching career: going from many years of teaching small cohorts of teacher licensure candidates to teaching large classes of liberal arts core courses to college-wide undergraduates. Within this new context of teaching students with whom I would not have the luxury of interacting over multiple semesters to create and sustain connections, I quickly came to realize the need for establishing communities in which all students would feel that they were in a safe space in which their voices were welcomed and valued. Thinking about concrete ways to create such safe spaces was challenging, and my efforts were far from systematic nor particularly reflective. Fortuitously, in the spring of 2021, the Culturally Responsive Teaching and Leading (CRTL) Standards were released, and I saw a way to more systematically and reflectively plan for increasing the likelihood that students, especially those who might feel marginalized, would feel that it was safe to voice their ideas. Now teaching within a liberal arts core context, I also wondered how I could make a convincing case to faculty, whose role was not to prepare future teachers and leaders for P-12 settings, of the value and feasibility of incorporating the CRTL Standards into their own course work.

With two audiences in mind—the voice within my head that questioned my own incorporation of the CRTL Standards into my coursework and the potential voice of non-educator preparation faculty—I began my reflective journey with questioning about my own practices, using the indicators of the CRTL Standards as guides. Initially, this was a lonely journey, as I did not have the luxury of unpacking the Standards with others at my home institution. I was, therefore, very motivated to become a member of a Center for Success task force, made up of faculty from several different Illinois universities, that had taken on that unpacking work. The voice in my head kept bringing me back to Standard a. of the CRTL Standards again and again, however, so it was very validating to hear similar thoughts from a faculty member at another university. This paper is essentially the result of our ongoing conversations about our journey to “pivot” our practices, using Ginwright’s framework as one of our tools of inquiry and experimentation. Our hope is that we will have others join in the conversation, as we learn and unlearn in order to make necessary changes.

**Convergence of Our Journeys**

In our discussions about our separate work to unpack and meaningfully integrate the CRTL Standards into our teaching, we both found that the unpacking of CRTL Standard a. was the most personally significant, if not jarring, because of the personal nature of the work implied. Standard a. requires us to “gain a deeper understanding of ourselves” and to consider how our actions “impact others.” To do so means that we have to unflinchingly look inward. It was this look inward that led to our thinking about the framework offered by Ginwright’s (2022) Four Pivots model. In sharing our thinking with you, we will present each of the “Pivots,” offering our connections to the Standard a. work with which we are involved and also make suggestions for next steps based.
on this framework. Finally, we will end with a Call to Action in which we suggest next steps for anyone who is moved by this work and seeks to transition to the next level.

Analyses and Discussion

Pivot #1: Awareness: From Lens to Mirror

“If our mirrors could talk to us, we’d learn a lot about who we are” (Ginwright, p. 25).

We think of the following metaphor as we consider lenses and mirrors. Those of us with glasses and contacts know what it feels like when our prescription is wrong or our “lenses” aren’t clear. It is hard to do the things we need to do because we can’t see things clearly. We can even feel off-balance. Correct lenses, with the proper prescription, help us to see things clearly. They help us see everything and everybody more precisely. However, before we leave home, we typically use the mirror privately. We do this to see how we will show up, to see if anything is out of place, to see if we need to adjust our makeup. We use the mirror privately so that we can make the adjustments needed before venturing out to allow others to “see” us. We want to make sure we “show up” looking right.

We all have lenses. Our lenses shape the ways in which we view the world. The lens is created by the sum of our experiences. We need these lenses. They help us make sense of the occurrences within our view. For example, we have lenses that we use to spot racism when we encounter it. We know various ways in which it shows up in our world. Sometimes, it is overt (differentials in pay, the need to stay in our “lane”, etc.) and at other times it is covert micro/macro-aggressions, not getting the position, etc.), but using our lenses in our attempts to understand these occurrences is important. Our lenses help us to navigate the realms in which we operate. At times, our lenses are survival tools and we use them to analyze situations we face as we interact in various spaces. However, for the most part we just analyze, but we don’t reflect. Ginwright notes that the world in which we live tends to reward us for how well we use our lenses to analyze events around us.

The questions for us are: What does it mean to do mirror work? How do we begin this mirror work? What steps can we take to begin the process of self-reflection and projection? We do not feel equipped with the skills we feel are necessary for this vital part of the process. What we do know is that there is no quick fix. Ruby Sales, appearing on a podcast episode with Krista Tippett (2020), notes that “[t]he real ability to see ourselves involves hindsight, foresight and insight.”
Imagine a society in which we all use hindsight—the sum total of the lessons we have learned from key events in our lives; foresight—the power to reimagine, dream about and create the changes we seek in the world; and insight—the mixing of those two which would be used to form new, more equitable ways of being. Using these three ways of seeing—hindsight, foresight and insight—forms the basis of the “mirror” work. The question again is how and where do we begin?

To help us become better at perspective-taking, in his book and Podcast interview about the same with Brené Brown, Ginwright provides us with questions and suggested activities on which to reflect:

- What are unresolved issues from my childhood that I need to address?
- What needs to be healed in me?
- What are some things that I am insecure about and why?
- What do I fear?
- How do my fears show up in my interactions with others?
- What is the conversation I’ve been avoiding having with someone? Why have I avoided it?
- Ask for feedback from those with whom you feel safe. Ask questions like: If there was one thing I needed to work on, what would you say it is?
- Create a mirror group. This group would be a small accountability group that is composed of people you trust who can support each other on this journey. Then really do the hard work needed with this group.

These suggestions show that mirror work is not a pivot that can be done entirely on our own, however. Additionally, the work does not end. We need to continually grow and reflect. To sustain such efforts means we need to have connections of trust with others.

**Pivot #2: Connection: From Transactional to Transformative**

“Belonging is a mutual exchange of care, compassion, and courage that binds people together in a way that says you matter” (Ginwright, p. 94).

Originally, we were intrigued by this pivot because we thought that Ginwright was referring to the way in which we treat adaptive challenges as technical problems, thereby using quick “fixes” to solve complex people-centered issues. However, this pivot is about more than task completion. It is centered on the ways in which we forge meaningful relationships, relationships that are transformative vs. simply transactional.
Transactional relationships are defined as those anchored in tasks and roles. We engage in transactional relationships every day, e.g., when we go into a store and take the items we would like to purchase to the register, when we go into the library and check out resources, etc.

We typically go about our work focusing on accomplishing tasks with an emphasis on being efficient. For the most part, we receive an assignment and go about getting it done. Although this type of functioning is vital to society, it is not the means by which transformational relationships are fostered. Pivot #2 is all about the ways in which we need to think differently in terms of really learning about ourselves and others more deeply, establishing the conditions necessary for people to feel like they belong and that we care.

As professors, we have always sought to be efficient. For the most part, we would get our materials in on time, provide the necessary information to students about the assignments necessary for the term, provide feedback based on our self-developed rubrics, etc. Of course, we would get to know students’ names, their majors, a bit about the schools in which they work, or the dissertation topic they had chosen. We do feel like we had mutually beneficial relationships with our students. However, the new us, the pivoting/reflecting us, now realizes that those things we did were not enough.

The relationships we previously had with our students were transactional for the most part. We played our roles and they played theirs. We provided the structural things needed for classes to run efficiently. Our interactions were transactional but for the most part they were not transformational. Responding to the needs of our students as they navigated the pandemic within their own families and/or in their schools solidified the fact that we needed to do more. We needed to intentionally create opportunities for students to connect with us and with each other.

In the text, Ginwright (p. 127) suggests a few small moves which can make a huge difference in terms of our work on this pivot, including:

- Taking the time to do emotional check-ins with the groups with which we are working instead of jumping right into our agenda items.
- Really listening to how people are feeling and showing that we care in our responses.
- Sharing our personal journeys—not just our professional work—but sharing some things that are more personal and that show our vulnerability.
- Living the premise that the practice of caring is an act of courage.

Ginwright argues that engaging in such practices is the only way that we can push forward as a society.
Pivot #3: Vision: From Problem Solving to Possibility

“The truth is that sometimes we are not aware about how our perspective can shine light onto some things and obscure others” (Ginwright, p. 153).

Standard a. opens with the statement, “Culturally Responsive Teachers and Leaders are reflective and gain a deeper understanding of themselves and how they impact others…” However, to gain such understanding requires that we first “become aware of the possibility that our perspective is limited” (Ginwright, p. 153). This is not only difficult but essential work if we are to “[u]nderstand and value the notion that multiple lived experiences exist, that there is often not one ‘correct’ way of doing or understanding something, and that what is seen as ‘correct’ is most often based on our lived experiences” (CRTL Standard a.1). The work of the CRTL Standards, therefore, has to start with the work of recognizing our blinders and becoming “more aware of those that obstruct and obscure how we see the world and act within it” (Ginwright, p. 153). To begin this hard work, Ginwright suggests that “we have to learn to become an observer, the witness to all and other perspectives and viewpoints, without judgment but with curiosity. …to recognize that there is always a bird’s-eye view of things that allows us to see the whole picture” (ibid.).

Ginwright (p. 155) poses very useful questions for our consideration about perspective taking, including:

- How much of our lives do we spend unaware of our perspectives?
- How often do we step back to see that our viewpoint is limited, not wrong or right, but simply obstructed?
- Do we have a birds-eye view of the issue we seek to change?

It is important to note, however, that the recommendation is for us to work on two levels because “[p]erspective is about seeing closeup and far away at the same time. Being close up gives us the nuance and a deeper understanding… Yet we also need a bird’s-eye view to understand… root and systemic causes… [N]either is right or wrong, good or bad, just incomplete” (Ginwright, p. 165).

The indicators of Standard a. bear out how important it is for us to become aware of our perspectives and to do the work of being close up yet far above. Indicator 1 of Standard a. notes the impact that lived experiences have on our thinking. Ginwright helps us to appreciate the value of knowing the lived experiences and personal stories of others, because doing so allows us to “gain deeper understanding, a clearer vantage point, when there is a personal connection” (Ginwright, p. 156). Prioritizing knowing about our students’ lived experiences and their personal stories could contribute to our efforts to “affirm the validity of students’ backgrounds and identities” (CRTL Standard a 1). Such validation would allow for a flow to “using this knowledge to build instruction that leverages prior knowledge and skills (CRTL Standard a. 2). Furthermore, by including “rep
resentative, familiar content in the curriculum to legitimize students’ backgrounds, while also exposing them to new ideas and worldviews different from their own” (CRTL Standard a. 3), students would also be learning to question their own assumptions and to consider the perspectives of others.

To help us become better at perspective-taking, Ginwright (p. 166) provides us with some more questions on which to reflect:

- Am I responding to an event?
- What are the patterns and trends I see with (a particular) issue?
- What are the underlying structures and relationships that support these patterns?
- What assumptions do I hold about this issue?

Further, to develop our capacity for perspective-taking, Ginwright urges us to take the perspective of a “third position,” which pushes us to “…become the observer of our own assumptions” (p. 167). He notes that perspective “is an awareness of our and other viewpoints, and it means that we bear witness to other potential interpretations without judgment…that we become the observer, the watcher of our own and others’ potential interpretations” (ibid.). We need to pivot to “interrogate our mental models, question our assumptions, and ponder our meaning making about events we see in the world” and, furthermore, to confront “the deeply held mental model of who is human, who belongs, who deserves” (ibid.). The last statement seems to go to the heart of why we would want to engage in the difficult work of increasing our capacity for perspective-taking, as well as to why we would want to facilitate our students’ building of such capacities.

Ginwright suggests that to build our capacities for perspective-taking, we look first at the language we use to describe and address obstacles and struggles. He recommends that rather than resisting, we reimagine, rather than defending, we dream, rather than disrupting, we discover, rather than demanding, we create, rather than fighting, we design, rather than struggling, we play, rather than confronting, we invent, rather than destroying, we visualize, and rather than deconstructing, we build. (p. 176). This pivot to positive thinking and use of positive language may well be useful for making the case for the desired impact of the CRTL Standards in the lives of both teachers and students and, ultimately, the greater society. As Ginwright advises, “our job is to lean into the practice of possibilities and strive for the future we want to create” (p. 178).

**Pivot #4: Presence: From Hustle to Flow**

“We all have an addiction to being overwhelmed with things to do… an addiction to frenzy” (Ginwright, p. 205).
If we are to become reflective and gain a deeper understanding of ourselves and of how we impact others, as Standard a. urges, we need to acknowledge that there has to be a time investment. Where do we find the time, however? As Ginwright points out, “Our addiction to frenzy is based on an insatiable need that fills our lives with tasks and things to do, which never allows us to slow down enough to focus on what really matters” (p. 205). If we are convinced that understanding and implementation of the CRTL Standards really matter, then we need to find ways to pivot away from frenzy to flow. Ginwright defines flow as “an awareness that is free of judgment, doubt, fear, and confusion and is guided by a sense of effortless certainty” (p. 212). Judgment, doubt, fear, and confusion are certainly reactions that may accompany our efforts to understand and implement the CRTL Standards. And, getting to the point of flow requires that the kind of mirror work described in Pivot #1. As we hold up that mirror, Ginwright urges us to take a hard look at the kinds of activities in which we typically engage and to deliberately structure opportunities, no matter how small, to reduce our frenzied activities. Perhaps, the most important piece of advice Ginwright has for our work with the CRTL Standards is that we should learn to “sit with’ ideas, focus on the process, and think through solutions. Great ideas come when you are in a flow, not frenzy” (p. 215).

The charge is to cultivate more flow in our lives, which may mean that we have to slow down. Ginwright offers the radical idea of resting, noting that this advice flies in the face of messages within our dominant culture that tell us that “work, not leisure, nor rest, should occupy most of our time” (p. 219). In fact, rest is often associated with weakness or to be used for the purposes of recharging ourselves for better work performance. However, if we are to ponder the changes that the CRTL Standards are recommending, it is essential that we slow down to thoughtfully “ask questions about who we are, where we are going, and how we are going to get there” (p. 233).

This advice to slow down is especially useful if we consider that some of the changes implied by the CRTL Standards may cause discomfort. Ginwright describes a context of wilderness, in which “/\wilderness is a perspective that we hold about things that we view as unknown, untamed, and uncontrollable” (p. 232). If we don’t take the time to ponder the aspects of the Standards that will require us to move out of our comfort zones, then the work of social transformation implied by the Standards may not be accomplished. Ginwright leaves us with the following questions:

- So how will you choose to be still in the wild?
- What will you do to step out of the traffic of life and center down?
**Call to Action** Given the ongoing work required to “pivot” to deep understanding and impactful implementation of the CRTL Standards, we are ending with a call to action, rather than with a conclusion. Our hope is that others will want to join our conversation about ways in which we can use Ginwright’s four pivots to extend and deepen our plans for making the CRTL Standards an integral part of our efforts to prepare future teachers and leaders. We envision activities such as ongoing exchanges of ideas using a blog (https://ava1242.wixsite.com/website) and virtual discussions using the ideas from Ginwright’s Four Pivots website: (https://www.steppingintotruth.com/e/shawn-ginwright/). We hope to see you along the way on this journey.

**References**


Implementation of the Illinois Culturally Responsive Teaching and Leading Standards
by Kelly Monson

Author Bio:
Kelly Monson, Ed.D., is the director of graduate programs and assistant professor of education at Rockford University. Kelly has over 15 years of educational leadership experience serving in multiple capacities, most recently as an assistant superintendent and principal. Kelly holds a doctorate degree in educational administration and master’s degrees in educational leadership and special education, and earned endorsements in the superintendent, general administration, and LBS1 special education. Kelly's academic studies and research interests focus on culturally responsive teaching and leading. She may be reached at kmonson@rockford.edu.

Introduction
Rockford University is a small private university situated in a mid-size city in northern Illinois that resides within Rockford Public Schools, an urban-emergent school district serving over 26,000 students. As the culturally responsive teaching and leading standards (CRTL) were adopted by the Illinois State Board of Education in March of 2021, Rockford University was already in partnership with Rockford Public Schools to create a more diverse pipeline of educators and to redesign the teacher preparation program to support future and current educators to lead and teach in an urban setting with culturally responsive praxis. For this reason, the faculty within Rockford University’s education department were early adopters of the CRTL standards, and as a result are now one of the first higher education institutes to have their CRTL aligned program redesign approved by the Illinois State Board of Education. We recognize that this is a challenging task and hope that our process can be utilized as a model framework for other institutions to integrate these standards into teacher preparation programs across the state of Illinois.

Phases of the Rockford University CRTL Curricular Redesign Process
In order to redesign our coursework for both preservice and inservice teachers to learn and adopt a culturally responsive praxis, we recognized the importance that our professors cultivate a shared understanding and mindset shift first to effectively and collaboratively engage in this work. The first phase in our CRTL redesign process was to retire our Rockford University teacher education professional dispositions and develop new Rockford University guiding principles to establish the foundation for this redesign by identifying principles and performance indicators for practitioners in the field of education. We approached this first phase with a small task force that included four professors in the Rockford University education department, using a structured facilitation process led by Dr. Kelly Monson, a full-time faculty member who was also attending workshops and leading a task force with the Center for Success to unpack the CRTL standards. We began this process by revisiting the Rockford University education department dispositions adopted decades earlier by the faculty. We intentionally decided to develop Guiding Principles, rather than Dispositions, to emphasize that these performance indicators can be learned. We envisioned that embedded in

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the coursework and advising responsibilities, students would have the opportunity to set goals and receive generative feedback to demonstrate evidence of progress on their readiness to teach diverse students. We believe this is a more equitable and evidence-based process than the former practice of evaluating assumed innate skills that are present or not in dispositions. Over several months our task force “cross-walked” the CRTL standards with evidence-based, culturally responsive pedagogies and practices enacted in today’s diverse classrooms. The result of the first phase and the collaboration of the task force was five guiding principles that include operationalized definitions, performance indicators, and a plan for progress monitoring growth with students to ensure they learn the principles through coursework and are mentored and coached by their faculty advisor throughout their program of study (Table 1.1).

Table 1.1 - Rockford University Education Department Guiding Principles

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The second phase of Rockford University’s CRTL alignment program redesign was to engage the faculty and staff in the education department with the adopted CRTL standards through workshops, and to collaborate with them on where the CRTL standards and guiding principles would be introduced, applied and assessed in the coursework, and where strategic mentoring and coaching would be included through field experiences and conversations with faculty advisors. It was decided that EDUC 300/500 and EDEC 300/500, Introduction to Teaching and Learning would serve as the introduction to the CRTL standards and Guiding Principles, since it is the first education course in the plan of study for all undergraduate students and graduate students enrolled in the
Master of Teaching (MAT) education major and minor programs. This course now includes lessons and coaching materials, and opportunities for students to unpack the CRTL standards and engage in reflective plus/delta and goal setting activities for the guiding principles.

The third phase of the redesign was to create a course for students to engage in intentional and deep learning related to culture and cultural diversity in the United States. This course, EDSL 371/571 Cross Cultural Education, is now required for all undergraduate and graduate students who major or minor in education at Rockford University. This course description states: The role of culture in the American educational system and how various ethnolinguistic groups contribute to the cultural dynamics of the classroom. Participants examine behavioral expectations and learning styles of students of different cultural backgrounds, how teacher expectations can affect the perceptual judgments of individual students, and how multicultural education practices enable students of all backgrounds to succeed in a multicultural world. The student learning outcomes for the course are aligned to the CRTL standards. Throughout the course students have opportunities to learn, discuss and apply the standards. The learning outcomes are assessed through assignments such as the development of a personal “cultural autobiography” paper and in-class presentation.

Next, the Rockford University education department faculty collaborated on Project Framework, led by the chair of the department, Dr. Gina Braun. The goal of project framework was to integrate the CRTL standards into each education course through aligning outcomes, activities, and assessments into each of the courses in all of the programs to ensure both integration and coherence of the CRTL standards throughout each student's program of study. In this fourth phase of the redesign, we identified the alignment that already existed in our coursework to the CRTL standards. We recognized the importance of starting with and highlighting where we were currently aligned before making changes to integrate the standards in all courses. We then utilized a process that identified the current themes that aligned to both the CRTL standards and guiding principles and conducted a gap analysis to focus our redesign work so that all of the standards were introduced, learned and assessed thoroughly and coherently throughout each program. Project framework organized and documented where each CRTL standard and guiding principle is integrated in each course and the anchor assessment aligned to these standards (Table 1.2).
The fifth phase of our redesign is the ongoing faculty and staff development and assessment of our CRTL integration. Our priority area for the redesign reported to ISBE is to ensure continuous analysis of implementation fidelity. Our priority focus is, (1) Provide continuous training to ensure fidelity of CRTL alignment integration, and (2) Ensure continuous integration of the CRTL standards in each course within the Rockford University education department. Our action steps include providing initial and annual training for all full and part time faculty, staff, adjunct faculty, and students to unpack, learn, and review the CRTL standards, implementation requirements, and anchor assessments for each course. This will include training on the Rockford University Guiding Principles which are aligned to the CRTL standards.

**Reflections on the Rockford University CRTL Curricular Redesign Process**

The process of integrating the Culturally Responsive Teaching and Leading Standards (CRTL) through our program redesign was and is a collaborative and ongoing process. We learned that creating through lines of CRTL themes across the program was key to coherence and deep understanding of a culturally responsive teaching and leading praxis for preservice and inservice educators. We started with where we were and designed around existing themes and student learning outcomes that were already aligned to the CRTL standards. We also utilized a process that started with a small task force and thoughtfully extended to training and collaborative work with our entire department, resulting in a guiding framework for full integration. We engaged in activities that allowed us to cultivate a shared mindset while redesigning our coursework that we believe is critical in the ongoing work of becoming culturally responsive faculty and staff members.
We recognize that this is an ongoing task that requires discipline, focus, and collaboration with the faculty and staff within each department that is redesigning programs. We are aware that there are political and social hurdles that can surface within each community as this critical work is being accomplished. Rockford University did not do this work in isolation. We are excited to partner with the Center for Success to share ideas with colleagues so that we can do this work collaboratively. Our task force meets monthly during the school year and created this Google site purposed to be a repository of the vision, glossary, lesson activities, resources and references collected for each of the eight CRTL standards - Culturally Responsive Teaching and Leading Standards. We believe the CRTL standards are a highly effective and useful tool in the work of transforming teacher preparation programs and can be leveraged to guide the critical work of day one readiness for future educators to be culturally responsive teachers and teacher leaders.

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Rockford University Education Pathway
https://www.rps205.com/parents/academics/ru-pathway
Culturally Responsive Practices in our Teacher Education Programs
by Karen Blaha

Author Bio:
Dr. Karen Blaha, Ed.D., is an Assistant Professor of Education at the University of St. Francis. Her research examines topics such as culturally responsive instructional practices that support diverse learners and supporting teacher leadership in Illinois. She has facilitated the presentations Instructional Practices that Support Educational Equity Within Virtual and Online Learning Environments and Instructional Practices that Support an Equitable Learning Environment for Diverse Learners in Higher Education for the National Equity Summit, and will present Supporting Linguistically Diverse Students with Collaborative Instructional Activities at the 2022 WIDA Annual Conference. She may be reached at kblaha@stfrancis.edu.

Introduction
In March, 2021, Illinois adopted the Culturally Responsive Teaching and Leading Standards, with the goal to embed the standards within education programs and support preservice teachers’ culturally responsive teaching skills. Culturally responsive teaching refers to a student-centered approach that “empowers students intellectually, socially, emotionally, and politically by using cultural referents to impart knowledge, skills, and attitudes” (Ladson-Billings 2014, p.20). According to the Illinois State Board of Education these standards are designed to help future educators “engage in self-reflection, to get to know their students' families, to connect the curriculum to students' lives, and to support student leadership” (Illinois State Board of Education, 2021).

While Illinois, along with many other states, have made progress in preparing our future educators to meet the needs of diverse learners (Bissonnette, 2016; Paris & Alim, 2014), with such standards adoptions, there continues to be a disconnect between culturally responsive theory and classroom implementation (Gay, 2015). Studies have shown that while future educators understand the value and advantages of culturally responsive teaching, they “are uncertain how to apply culturally responsive pedagogy in the classroom context” (Samuels, Samuels, & Cook, 2019, p. 55).

Questions
This issue generates several questions we must review if we want our teachers to truly be prepared to implement culturally responsive teaching. First, culturally responsive teaching has been a subject of discussion and research for several decades, so why does there continue to be a disconnect between theory and practice? The answer may lie in how this framework is used within the college and university classrooms themselves. Studies have shown that many preservice teachers, while they receive information about culturally responsive teaching, may not experience or observe modeled culturally responsive teaching in their own education program (Howard, Overstreet, & Ticknor, 2018), leading to confusion on how to implement culturally responsive teaching on a consistent basis.
Second, what can be done to ensure our preservice teachers understand how to effectively put theory into practice? Rather than just relaying information, colleges and universities must expose future educators to culturally responsive practices by having the course instructors practice cultural responsiveness with their students (Howard, Overstreet, & Ticknor, 2018). When instructors, themselves, engage in and model culturally responsive teaching practices, they “support their teacher candidates and graduate-level candidates in learning to accept and to incorporate cultural competence as part of their identity and instructional practice” (Hutchinson & McAlister-Shields, 2020, p. 4).

In other words, in order for our preservice educators to understand culturally responsive theory and its applications, just adding the Illinois Standards to courses will not be enough. A culturally responsive framework needs to be implemented within the courses and used with the students themselves. Colleges and universities need to provide support to faculty and instructors on how to use this framework with their own students.

Which brings about a third question. How can instructors begin or expand the implementation of culturally responsive teaching practices? Though cultural responsiveness is an ongoing learning experience, there are a couple of practices that instructors may want to consider as they create an engaging, supportive learning environment for all learners.

**Instructors Start with Self-Reflection**

Before instructors can effectively create an environment and instruction that is culturally responsive, they must first engage in self-reflection of their own Cultural Frame of Reference. A Cultural Frame of Reference is a person’s unique set of beliefs, attitudes, values, and past experiences that influence how they perceive the world (Hammond, 2015). This reflective practice will help instructors understand how their cultural framework impacts their communication, how they interpret communication from others, and their perspectives regarding student expectations and instruction. Self-reflection also helps instructors to identify any potential implicit biases. Implicit biases form in our subconscious, and most people are not aware they have these biases.

**Instructional Practices**

Culturally responsive teachers leverage students’ experiential background to make learning engaging, relevant, and cognitively challenging. Instructors provide opportunities for students to make connections between new learning and background experiences, and provide opportunities for students to share their perspectives and experiences. The Center for Research on Education, Diversity, and Excellence, also known as CREDE, (2022), provides several examples of instructional practices instructors can use to provide such opportunities.
**Joint Production**

Effective learning occurs when the instructor and students work together for a common goal. Instructional tasks are accomplished through student collaboration and discussions while the teacher acts as a coach or facilitator during the process.

**Contextualization and Instructional Conversations**

New learning is made relevant and engaging by connecting it to students’ personal and community experiences. Activities begin with what students already know from home, community, and previous lessons. Discussions and tasks include students’ views, perceptions, and rationales using evidence and other support.

**Challenging Activities**

The instructor designs tasks intended to advance students’ thinking to more complex levels. This is done with high academic standards and meaningful assessment that provides clear, direct feedback about how their performance compares with the standards.

**Modeling**

Instructors can model inclusive language and actions to promote a community of learners. Instructors can also model thinking processes and behaviors of culturally responsive educators, techniques that provide opportunities for students to connect learning to background experiences.

**Conclusion**

Though many states are placing supports into teacher preparation programs, there continues to be a need for these programs to strategically and explicitly integrate cultural responsiveness throughout the program and courses. Rather than simply embedding the Illinois Culturally Responsive Teaching and Leading Standards in the programs, culturally responsive teaching needs to be incorporated within the instructional practices of the program. Purposeful use of these practices will serve the preservice teachers twofold: 1) it will create an environment that validates their experiential experiences and scaffolds learning, and 2) it will better prepare students to promote diversity and apply inclusive strategies in their daily teaching practices effectively.

**References**


“But they need intervention!” Abyssal Thinking and Teacher Partnerships in a Two-way Dual Language Program
by Elvira Pichardo and Jessica Montenegro

Author Bios:
Elvira Pichardo, Ph.D is an Assistant Professor of Foundations, Language, and Literacy, ESL, in the College of Education and Social Sciences at Lewis University. She holds a BA in anthropology and psychology from the City University of New York-Lehman College, a MA in urban bilingual education (1-6) from Hunter College, and a MA and PhD in evolutionary anthropology, with research focused on immigrant family investments in education. Her research interests include translanguaging, raciolinguistics, dual language education, and anti-racist education. She may be reached at epichardo@lewisu.edu.

Jessica Montenegro is a 1st grade dual language teacher for a suburban Chicago school district. She holds a BS degree from Loyola University Chicago, and a master’s degree in education with a reading specialization from DePaul University. She is currently working on her ESL/Bilingual endorsement through National Louis University. She may be reached at jessvalverde7@gmail.com.

Abstract
Deficit thinking and learning loss have dominated the conversation on literacy and mathematics in the era of pandemic teaching. Biliteracy programs are particularly vulnerable to deficit thinking and abyssal thinking due to raciolinguistic ideologies. This article focuses on teacher praxis and the collaboration between teacher, coach, and ELL director as we work together to combat abyssal thinking and the over-identification of emergent bilingual students for remediation services. Through constant collaboration, communication, and coaching, we were able to (1) decrease the number of students pulled out for remediation services and (2) honor Spanish instruction. This article concludes with the need for continued learning and collaboration as well as alternatives to traditional remediation services based on monolingual English models.

Introduction
“Something isn’t right,” “Adam” (alias name), a fourth-grade dual language teacher declares, shaking his head as he motions to the Fountas and Pinnell benchmark scores of his only two Spanish speaking students in the 4th grade dual program, “They should not be scoring lower than their English speaking peers.” This was an immediate red flag for me, and one that as a coach I had to address. I asked him, “Well, did the assessment assess for language, literacy, or both? Was it an authentic assessment for translanguaging or is it a monolingual English assessment translated into Spanish? Are we analyzing for language miscues and literacy errors or just literacy errors?” “I had never thought of it as language versus literacy,” he replied, “and of course this is not an authentic
assessment. Now can you talk to me more about language miscues versus literacy.” As a coach, I took this as an opportunity to discuss language miscues as used by Cecilia M. Espinosa and Laura Ascenz-Moreno in their book, Rooted in Strength (2021). This coaching conversation led to more critical questioning about assessment practices and their centering of monolingual English middle-class White languaging practices, particularly within our dual language programs. How can dual language programs in affluent White suburban communities shift to center programming, assessment, curriculum, and daily language praxis to focus on Latinx students instead of over-identifying them for intervention services that continue to marginalize the linguistic and cultural practices of Latinx students? A coaching partnership based on mutual understanding of biliteracy and daily languaging practices, as well as critically questioning and dialoguing around abyssal thinking, can provide a first step in acknowledging, centering, and validating the language practices of Latinx students.

The above discussion, one of many this year due to the normalization of deficit thinking around “learning loss” due to the pandemic and continuous categorization of emergent bilinguals as low compared to their monolingual language peers, exemplifies how Latinx bilingual students have been labeled, racialized, and positioned in schools, even in dual language programs, as a problem that needs to be fixed. This persists despite how educators and the students themselves identify and see their language practices (Garcia, Flores, Setzer, Wei, Otheguy, and Rosa, 2021). The academic potential and trajectory of Latinx students in dual language programs are at risk because of the systemic legitimization of one method of language development, production, and practices that pivot to knowledge systems and practices that are attributed to White monolingual students and people (Garcia, Flores, Setzer, Wei, Otheguy, and Rosa, 2021). Deficit thinking is maintained and produced by raciolinguistic ideologies that stigmatize and denigrate how Latinx students make sense of the world using everyday language practices and interactions (Garcia, Flores, Setzer, Wei, Otheguy, and Rosa, 2021).

Garcia, Flores, Setzer, Wei, Otheguy, and Rosa (2021) propose studying language de adentro (from the inside) in order to counter traditional notions of bilingualism, languaging, and education. It starts with our positionality, continues with defining and understanding language through a rejection of additive bilingualism, code-switching and cross linguistic transfer, and leads to an analysis of the policies and practices that are enacted in the name of bilingual education and how they insufficiently address the actual lived experiences and languaging practices of racialized bilingual students (Garcia, Flores, Setzer, Wei, Otheguy, and Rosa, p.5-6, 2021). This current mismatch between theory and practice continues to impact the education of Latinx students and is maintained through abyssal thinking and raciolinguistic ideologies.

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In this article, abyssal thinking is defined as hegemonic thinking that identifies dominant knowledge systems and negates colonized knowledge systems and lifeways that are positioned as inferior (Garcia, Flores, Setzer, Wei, Otheugy, and Rosa, p.1-2, 2021). The legacy of colonialism has impacted what is considered appropriate language practices including centering Spanish from Spain, the concept of academic language, language allocation practices, and current teacher pedagogy and praxis in dual language programs. The discussion with the teacher above as well as the over-identification of bilingual Latinx students in intervention programs in K-12 exemplifies how abyssal thinking is acted out in classrooms and maintained through the adoption of a monolingual English lens in assessment and intervention practices. In this sense, the social justice aspect of dual language education is muted as the cultural and linguistic hierarchy of whiteness and English is prioritized (Martinez, 2019).

Despite the pervasiveness of abyssal thinking and the restrictive linguistic practices of a 50/50 dual language program, Latinx educators and students continue to resist oppressive language policies and instructional norms through translanguaging in bilingual classrooms (Martinez, Vieyra, Ahmad, and Stoval, p.97, 2021). In what follows, we share how collaboration and teacher partnerships can combat abyssal thinking and lead to a focus on everyday language practices instead of on what the students lack and how this assumed deficit is tested and remediated. Through constant collaboration and coaching, meetings, dialogue and questioning, we were able to begin to center Spanish language practices inside and outside the classroom and use this to redefine who needs intervention services and who does not. Although we were not completely successful, we were able to move the percentage of dual language students in intervention services down from 25% to 15%, and were able to advocate honoring the Spanish language teaching and learning core so that no students were removed for intervention services during the Spanish core. We are continuously working on reimagining intervention services and biliteracy, since we reject additive approaches to bilingualism and language policies and instructional practices that continuously marginalize Latinx students while affirming the language practices of English speaking, White dual language students.

**Positionality and Biliteracy**

As a coach, author Elvira Pichardo provided professional development, coaching, and learning around translanguaging, and language versus linguistic miscues. Both authors have worked on biliteracy and provided coaching conversations and critical questioning and discussions around biliteracy practices. Both authors have supported the school with the implementation of the dual language program, Jessica Montenegro as a classroom teacher and mentor, and Pichardo as a biliteracy coach and member of the building leadership team. Pichardo identifies as Afro-Latina, the daughter of Dominican immigrants, an emergent bilingual, and the mother of a simultaneously bilingual son who is a student in an English only school in an affluent neighborhood. She understands that she is in a position of privilege as an English speaking, educated Latinx who has access
to higher education and is a parent in the district. In her professional work, she fluidly uses both Spanish and English as well as her lived experiences as an emergent bilingual in New York City. Her lived experiences at home and at work have impacted her understanding of dynamic language practices and racialized bilingual Latinx students' language in everyday interactions, used to construe meaning and knowledge.

Montenegro was born and raised on the south side of Chicago. Her parents are from Mexico and spoke only in Spanish to her since she was born. She learned English from attending predominantly white schools and living in a predominantly white neighborhood. She received her bachelor of science degree from Loyola University Chicago and her master’s in education and reading specialist degree from DePaul University. She is currently working on her ESL/bilingual endorsement through National Louis University. She has 15 years of teaching experience and is the first-grade dual language teacher in a suburban school in Chicago.

This article highlights the work of the 1st grade dual language team as they work toward a definition of biliteracy not rooted in abyssal thinking, in order to identify students for intervention. Jessica is the Spanish-component teacher who teaches two separate groups of students solely in Spanish. These two groups of students, thirty-eight students in all, alternate between teachers, languages, and subjects every day. There is an English half, taught by a young woman who identifies as a white and who learned to speak Spanish in college. She has lived in the Midwest her entire life. To begin the intervention discussion, a group of educators, including the bilingual interventionist and dual language program coordinator, worked with Adelante Specialists to find and plot the biliteracy zones of our dual language students. To plot the biliteracy zones of our students, students were assessed using Fountas and Pinnell in Spanish and in English. Both authors acknowledge the limitations of using Fountas and Pinnell to define the biliteracy journey of our students; however, compared to other district assessments that use letter-name, letter-sounds, and sight words in Spanish and English, and initial, middle, and ending sounds, Fountas and Pinnell assessed how students comprehend texts and made meaning.

On December 1, 2021, the bilingual team worked to find the biliteracy zones of the students we service within the district. We were able to find the zones for 1st through 4th grade and use these to figure out which students were in the zone for becoming biliterate. In turn, this data was used to drive discussions around which students needed intervention services and which students needed more exposure to oracy and explicit language instruction and modeling. Both authors reflected on this work and implications for the classroom. We reanalyzed the data focusing on the following questions: In what ways does finding the biliteracy zones of students work to combat abyssal thinking? How does the focus on biliteracy zones impact who is being (over) identified for
interventions? We start by describing our school, “Redwood,” and what made both authors undertake this critical question of intervention and bilingualism for whom? We then describe how the process of intervention and choosing students for interventions placed English and whiteness at its center as evidenced by two planning meetings with the reading interventionist team, the building administrators, the dual language coordinator, the 1st grade dual language team, and the biliteracy coach. Finally, by focusing on what the students can do in English only during the final planning meeting between the reading interventionists and dual language teachers, the implementation and practice of abyssal thinking, in spite of the resistance of the Spanish speaking dual teacher, became re-centered, even as the teachers interrogated connections between English dominance, who is considered a strong dual language student, what language practices matter, and who is seen as a problem that needs intervention. The critical questioning and discussions continued to impact and drive follow up conversations with the ELL coordinator, the principal, and the interventionists, and then impacted how interventions were implemented in second through fourth grade and reduced the number of bilingual students in remediation services.

The Dual Language Program at Redwood Elementary School
Redwood Elementary School is a kindergarten to 6th grade elementary school in suburban Chicago. It has a Spanish dual language program, and it is implemented currently in grades K-4, and will continue to expand. In the year 2022-2023, 5th grade will join the dual program with 2/3rds of the school being dual language by 2024. This Chicago suburb has 65.6% identifying White, 25.7% identifying as Hispanic, and 5.2% as Black (Census.gov, 2020). The suburb has been gentrifying as shown by rising home prices and the displacement of the African American community (Owens personal communication, January 2022).

Redwood Elementary school has 398 students. More than 47% of the students are Latinx, 36.9% are White, and 8.5% are Black making it the most diverse school in the district. 14.6% of the students have been identified as English language learners/emergent bilinguals through ACCESS testing. The dual language program started in 2017 as a way for Redwood to meet the needs of its ethnically and linguistically diverse student population. All simultaneous emergent bilinguals who speak a language other than English at home are automatically enrolled in the dual language program while monolingual English speakers are signed up by their parents. As of December 2021, 62% of the students at Redwood were part of the dual language program and 50% of students in the dual program spoke Spanish at home with a range of 35% of students in 4th grade and 59% of students in third grade speaking Spanish (Board Presentation, 2021). On average, 9% of students in the program resided outside of the Redwood boundary and 23% of students received EL services (Board Presentation, 2021).
The dual language program was started using the Center for Applied Linguistics’ Principles for Dual Language: program structure, curriculum, instruction, assessment and accountability, staff quality and professional development, family and community, and support and resources (Howard, Lindham-Leary, Rogers, Olague, Medina, Kennedy, Sugarman, & Christian, 2018). Since the start of the dual language program, Redwood has maintained a strict language separation model with two teachers and a 50/50 language allocation plan per grade. The staff, looking for opportunities to engage students’ full linguistic and cultural repertoire, was interested in translanguaging. Through work with the consultant, we started exploring translanguaging and its use in their classrooms. Currently, teachers in kinder, first grade, third grade, and fourth grade are all exploring the use of translanguaging and planning purposefully for the translanguaging corriente (current) and translanguaging spaces (Garcia, 2017). Meeting students where they are and assessing their language practice daily has allowed Montenegro to meet the language needs of her students in the classroom and has shifted the focus from strict language separation to asset based translanguaging as students construct meaning.

Although classroom teachers and the biliteracy coach were using translanguaging to guide their work and focusing on how students used languages daily in the classroom, the intervention program did not shift their focus from a monolingual English paradigm to a biliterate one. After the data session in December showed that many students considered intervention students were in the biliteracy zone, the bilingual interventionist asked for a meeting with her two monolingual colleagues who were pulling out students from the dual language program and providing intervention services using a scripted English-based kit. The bilingual interventionist herself used a scripted Spanish program that focused on how students learn to read in English: letter name-letter sounds, initial-middle-end sounds, sight words in Spanish, word segmenting, and, finally, silaba work. The first-grade dual language teachers had no idea what was happening during intervention since the reading specialists never planned with them and identified the students based on the district assessments. Moving away from an English dominant intervention program towards a translanguaging literacy-based program was a first for the district; it was the first time that this shift in intervention services was supported by the principal, dual language coordinator, and classroom teachers.

**Expertise as Power and Centering English: Biliteracy at the Margins**
The reading intervention program at Redwood is an example of how there is a lack of understanding and coordination resulting in a centering of English to the detriment of students by interventionists. The reading interventionists at Redwood school pull out dual language students during core instruction in both the English and Spanish classrooms and their interventions do not relate to the biliteracy unit frameworks being taught in the classrooms. There are three reading interven
ionists at this school who service both dual language and monolingual students with no differentiation of services. During the first scheduled meeting to discuss intervention and biliteracy after the data dive, when the principal told the reading interventionists that they needed to change the way they decided which dual students were pulled for intervention, two of the interventionists questioned his thinking and one was upset about what she was being asked to do. The reading interventionist who was upset felt that decisions were being made without her consent and told the educators in the room that they, the reading specialists, were the experts in the room who knew how reading worked and what the students needed. Although this interventionist knew nothing of biliteracy, she used her expertise to challenge translanguaging practices and the use of Spanish to construct meaning. She insisted on norming Fountas and Pinnell so that we all had a common understanding of the deficits of the students that they were working with, rather than listening to the Spanish dual language teacher and the coach about how students used Spanish to make meaning and to comprehend what they read daily in the classroom. She argued that the expertise of the Spanish dual language teacher and the coach were insignificant compared to her expertise and position of power as the most experienced interventionist. No one questioned her statement or her power or asked if she had any training and knowledge on how biliteracy works. This meeting marginalized not only the language practices of the students but the biliteracy knowledge and experiences of the Spanish speaking bilingual educators.

To counter this abyssal thinking that marginalized Spanish, the instructional coach and principal explained to the reading interventionists that research indicates that the focus should be on the bilingual trajectory to decide if a student receives reading intervention. The reading interventionists were not knowledgeable about the bilingual trajectory and did not express interest in utilizing it to make intervention decisions. At the beginning of the school year, the reading interventionists had used district protocol and determined which students needed intervention by using English F & P and Fastbridge data. However, the instructional coach explained that we need to look at both the English and Spanish F and P data since the students are bilingual learners. She also explained how important it is for dual students not to miss so much core instruction in both languages. After this meeting, the reading interventionists continued to pull out students as they had before and continued to ignore the full linguistic repertoire of the students. Instead of changing their intervention services to meet the needs of all students, they continued with their monoglossic English lens and continued to use English methods to teach Spanish literacy. Although the bilingual Latinx students who used Spanish at home failed to make progress and were classified as “low” learners, the interventionists did not change their methods and continued to identify the students and their language practices as a deficit. This represents how abyssal thinking has been institutionalized and leads to language policies and programs that do not match our students’ language and cultural resources. Despite this, the instructional coach, EL coordinator, and dual language teachers have
continued to advocate for the dual students so that they only get reading intervention if the bilingual trajectory indicates that they are not leveraging their resources.

The use of translanguaging to guide intervention services is firmly rooted in viewing, desde adentro (from the inside), the entire bilingual practices and biliteracy practices of student communities (Garcia and Sanchez, p.35, 2021). Using translanguaging enables educators to use this view desde adentro to facilitate bilingual knowledge production leveraged by our bilingual Latinx students. The intervention system implemented in the school district and evident in the meetings dismisses students' linguistic performances in English and Spanish and makes abyssal thinking systemic. Although the teachers, coach, dual language coordinator, and the principal are all looking at the students’ language desde adentro, focusing on how the students are performing in their biliteracy zone with their language and literacy construction, the language and literacy constructions imposed by the intervention program maintain the hierarchy of English and the literacy practices of monolingual English speakers. This continues to marginalize and oppress students who do not fit their notions of academic success (Garcia and Sanchez, ,p.35, 2021). To make intervention services work for our bilingual Latinx students, we must make them conscious not only of their reading practices but of their language practices, their histories, and the racialization process that continues largely to ignore their language and literacy.

**Centering Biliteracy and Framing Intervention Through Translanguaging Pedagogy**

The first meeting in December left the dual language team critically conscious of and questioning the positioning of Latinx students not only in intervention but also within the dual language program. The instructional coach looked at the data of who was receiving intervention services outside of 1st grade and noticed that immigrant Latinx students and students whose parents spoke Spanish at home were over-identified in the intervention program. In fact, in an upper elementary grade level, the two native Spanish speakers were two out of the three students receiving intervention services—a huge red flag. This was not surprising since language has been constructed as standardized based on White monolingual students, different from the actual language practices of Latinx students (Garcia and Sanchez, p.36, 2021). In this case, schools—their curricula, standards, instruction, assessment and intervention—ensure that teachers focus on the development of academic standard English modeled after the White middle class experience and focus on using that criteria as a measure of academic success to the detriment of Latinx students (Garcia and Sanchez ,p.36, 2021). In order to disrupt abyssal thinking and the raciolinguistic ideologies that label bilingual Latinx students as problems, classrooms and intervention programs must focus on the daily language practices and meaning-making processes that Latinx students and communities use (Garcia and Sanchez, p.36, 2021).
Our translanguaging pedagogy, and consequently our interventions, are a way to create in-school spaces where students are able to leverage their language and knowledge systems (Garcia et al, p.16, 2021). What does this look like in the classroom? Teaching and instruction emerge from the teachers’ stance and the students' meaning-making processes (Garcia et al, p.16, 2021). Translanguaging pedagogy is a framework that facilitates culturally and linguistically sustaining learning environments that allow educators to shift in response to their students’ classroom languaging (Garcia et al, p.17, 2021). This framework provides teachers and interventionists with the tools to combat abyssal thinking by designing instruction and learning experiences that build on the linguistic and cultural skills that students demonstrate. The Spanish component teacher, the coach, the dual language coordinator, and the administration all were actively thinking of ways of reframing intervention and took the first step by bringing up how students actively demonstrated biliteracy and recognized the linguistic practices students brought to the classroom (Garcia et al, p.17, 2021).

For example, Montenegro’s classroom worked on a unit of light and sound in her first grade Spanish-English classroom centered around the book Buen día, Buenas noche by Margaret Wise Brown (2017). Pichardo and Montenegro paid attention to the language practices that students brought to the whole class reading of the book and used it to inform instruction for the next day, focusing on inquiry around diminutives and a mingle-mingle, an instructional strategy where students mingle with different partners to the sound of music in order to share their work. The mingle mingle was structured so that it demonstrated their understanding of key scientific vocabulary using the students’ language of choice in partnerships and with the expectation that their final product would be in Spanish. Scientific vocabulary and its use in text is part of the standardized academic language that is valued in isolated remediation programs. In this classroom, students were actively speaking, making meaning, and engaging with scientific vocabulary on their own terms. The teacher actively engaged with the students and their knowledge production, intentionally creating a translanguaging space and corriente, a process the interventionists did not engage with as they used scripted programs.

As the second round of interventions were starting in January, the interventionists called a meeting in which they discussed the biliteracy data. The meeting was led by the principal. As we went student by student, the interventionists used the biliteracy zones and Fastbridge, a monolingual English based assessment to fine tune their caseloads. Although they discussed how the students interacted with them and other students using their intervention programs, they did not take into consideration the teachers’ observation of classroom interactions in both languages, their stances or the stances of the teachers, or the students’ active meaning-making and translanguaging. This led to their caseload still being about 20% of the dual language classrooms in both groups of students. Reflection by the teachers and the coach signaled their unease with the use of two data points.
and the lack of consideration given to Spanish and Spanish speaking students. Later, the interventionists scheduled another meeting in which they did not include the coach, the principal, or the dual language coordinator. After finding out about this meeting, the dual language coordinator joined and was able to negotiate with the interventionists. As a result, fewer students are now being serviced in the dual language program and the interventionists agreed not to pull students out of Spanish core instruction. They also discussed meeting with teachers to plan for more coherent intervention services and avoiding pushing into classrooms in a manner causing students to miss core literacy instruction, specifically in Spanish. Although these practices continue to be rooted in raciolinguistic ideologies and abyssal thinking, the honoring of Spanish is a big change in this school and a good first step towards valuing the languages and ways of knowing of our emergent bilingual students and communities.

Conclusion
Still, our current intervention program continues to operate along the lines of abyssal thinking and raciolinguistic ideologies. Our bilingual Latinx students continue to be over-identified in the intervention process and, therefore, labeled and seen as deficient and deserving of intervention to fix the problem. In this article, we have focused on how we have witnessed the centering of abyssal thinking, of English, and of dominant knowledge systems, including academic language. Reading levels continue to marginalize bilingual Latinx students. At the same time, we have observed how awareness through constant noticing, questioning, and dialogue, including naming and negotiation, opens spaces and possibilities for improved translanguaging practices.

The authors and dual language coordinator have proposed the following alternatives to interventions:

1. Focus on bilingual critical literacies that move away from English phonemic approaches and toward authentic Spanish instruction and assessment.
2. Create oracy groups in Spanish.
3. Use guided reading in English with the use of authentic language structures and less emphasis on isolated phonics instruction.
4. Contextualize readings with the interests and language practices of the students in mind.
5. Develop language based on the languaging practices of the students, including pre-teaching/reteaching unit framework vocabulary and concepts in context and focusing on meaning-making.
6. Establish meta-languaging/bridging opportunities throughout the week.
7. Develop language and vocabulary using Dictado (dictation). Así se dice (This is how you say it), Tiered Vocabulary Development, and Dialogue. Since our school district has worked with Literacy Squared, a focus on strategies that work with our students from Literacy Squared can lead to a school wide focus on strategies that foster metalanguaging and build on the language resources found in our classrooms and schools.

These suggested alternatives are based on the language practices of our students and shape intervention in a way that aligns with what we have found to be successful in our Latinx students’ learning. Although these may not be pedological practices that work for all students, they currently address the needs of our first-grade dual language students. In the end, we hope these intervention suggestions stay true to the dynamic languaging of our students and provide more translinguaging spaces, helping students to learn and thrive.

As we continue to work to reimagine intervention and re-envision students as language architects (Garcia et al, 2021, p. 18), the experience at Redwood Elementary School shows how a school can actively work to dismantle abyssal thinking, one step at a time. Although we did not address raciolinguistic ideologies as they are embedded within school mindsets about change regarding intervention and languaging practices, we took first steps to address the centering of raciolinguistic ideologies and abyssal thinking. We focused on the daily languaging practices of students in the classroom, maintained instructional flexibility that centers on what students bring to the classroom, and honored time learning in Spanish by preventing students from being pulled out. In the Spanish class, Montenegro actively worked to make students’ languaging and daily interactions visible, acknowledged, and centered. We continue to collaborate to create both an instructional space and a program where translinguaging and dynamic bilingualism are weaved within its tejidos (fabric), thus establishing equitable spaces for bilingual Latinx students.

References


Understanding the STEM Teacher Pipeline:
Early Findings from a Review of Selected NSF Noyce Program Evaluations
by David Devraj Kumar and Sharon Moffitt

Author Bios
Dr. David Devraj Kumar is Professor of Science Education and Director of the STEM Education Laboratory in the College of Education at Florida Atlantic University. He is Principal Investigator of a NSF Robert Noyce Research Project.

Dr. Sharon Moffitt is Director of School Leaders Program and Instructor in the Department of Educational Leadership and Research Methodology in the College of Education at Florida Atlantic University. She is Faculty Associate of a NSF Robert Noyce Research Project. Her research and work focus on teacher, school and district leadership coaching. She may be reached at smoffitt@fau.edu.

Abstract
Early findings from a review of National Science Foundation Robert Noyce Scholarship program evaluations in Science, Technology, Engineering and Mathematics (STEM) teacher preparation for high need school districts showed mixed results. The Robert Noyce program is intended to increase the preparation and supply of STEM teachers to high need schools. The evaluations reviewed (N=11) were collected through an internet search and they represented approximately 989 participants (including students, faculty members, alumni, and mentors). Two of the evaluations did not share the numbers involved. The review of the Noyce evaluation reports focused on the purpose, procedure, participants, methods, results, and evaluative recommendations to the program. The evaluations have employed a variety of data collection strategies to include both quantitative and qualitative methods. Findings include the importance of opportunities for reflection, mentoring, time spent in high need settings, and professional development. Not every scholar fulfilled their scholarship commitment. Implications for STEM recruitment, teacher preparation, curriculum, mentoring, employing school districts and policy are discussed with recommendations for Noyce programs.

Introduction
The need to prepare, place and retain high-quality teachers in science, technology, engineering, and mathematics (STEM) subjects throughout the nation’s public schools, particularly in high need districts is well established (President’s Council of Advisors on Science and Technology 2010). However, ensuring equal access to quality teachers in high need schools remains a challenge. The Robert Noyce Teacher Scholarship Program at the National Science Foundation (n.d.) provides funding to support the recruitment and preparation of teachers in STEM areas for high need schools. Identifying factors that lead to successful recruitment and retention, with a particular at
tention to graduates of the Robert Noyce Teacher Scholarship Program (hereafter the “Noyce program”) might shed light on the effectiveness of the program with insight to policy. In this context, evaluations of Noyce programs are of great interest as they provide insight for successful policy and practice.

**Purpose**
The purpose of the study is to review evaluation reports from Noyce programs to gain understanding of the preparation of STEM teachers for high need schools. According to the National Science Board (2010), the strength of the nation’s workforce and economy, and global competitiveness rely heavily on STEM fields. Yet, the U.S., once a leader in STEM student achievement among developed countries, has experienced a relative decline over several decades (President’s Council of Advisors on Science and Technology, 2010; National Research Council, 2010). Consequently, increasing the competency of K-12 students in STEM subjects has become a priority for U.S. policymakers.

Establishing a steady pipeline for the supply of high-quality STEM teachers into K-12 classrooms across the country is a key strategy for improving student achievement in STEM subjects (President’s Council of Advisors on Science and Technology 2010; National Science Foundation, 2013). Teachers remain one of the most influential factors positively impacting student learning (Kumar and Scuderi, 2000). However, for various reasons, the STEM teacher pipeline is not sufficient to supply the steady flow of teachers to offset hard-to-fill vacancies, low levels of teacher qualifications, and excessive turnover, especially in high need school districts (Feng, Hansen, and Kumar, 2021). For example, teacher turnover remains one of the major challenges haunting high need school districts. In high-poverty schools, 20% or more of their teaching faculty leave each year, and over half of teaching staff are replaced every five years, and these rates are considerably higher than low-poverty schools (Simon and Johnson, 2013). Irrespective of the fiscal and logistical challenges caused by excessive teacher turnover, it appears to have a damaging effect on student achievement, across demographic boundaries (Ronfeldt et al., 2013).

**Background**
The Robert Noyce Scholarship Program is one of several efforts by the National Science Foundation (n.d.) to address the critical need for supplying and retaining highly qualified elementary and secondary STEM teachers in high need school districts. To achieve this goal, the Noyce program provides Scholarships for talented STEM undergraduate/graduate majors and professionals to become effective K-12 STEM teachers. Institutions receiving Noyce funds develop partnerships across departments to involve faculty from both sciences and education to develop strong content knowledge among Noyce scholars, then offer mentoring and induction support in the field (Feng,
Hansen, and Kumar, 2021). The Noyce program provides support in three tracks; Track 1 – Scholarships and Stipends, Track 2 – Teaching Fellowships, Track 3 – Master Teaching Fellowships; and evaluation support; Track 4 – Research. Relatively little is known about how the teacher candidate pools in Noyce programs develop and evolve as scholars progress through the Noyce programs.

Noyce Scholars are students in a Noyce STEM Teacher Preparation program who receive Noyce Scholarship funding, on the condition that they work for a minimum of two years in a high need school district upon graduation. According to the National Science Foundation (2013) a high need school district has at least one school with over 50% of the students enrolled eligible for participation in the Free and reduced - Price Lunch program, and has at least one school, in the last three school years, with teacher attrition rate at 15% or higher.

After over fifteen years in existence, spending millions of taxpayer dollars in grants, there is relatively little empirical evidence available on the effects of the Noyce program on the supply of STEM teachers in high need school districts. Therefore, it is very important that we learn more about the preparation and supply of STEM teacher workforce in high need school districts, and how to ensure equal access to high quality teachers.

In 2020, Florida Atlantic University (FAU) received an NSF Noyce Track 4 Research grant. The FAU research grant is part of a Noyce partnership with the Brookings Institution and Texas State University, and four collaborators; the University of West Florida, Florida International University, Texas State University and University of Texas Arlington. FAU is leading one of the three major objectives of this project using a mixed method study. Some of the major research questions of this multi-stage and multi-year project are: What are the demographics and qualifications of the STEM teacher candidate pool, and how do they change during the preparation process? Do different programs have varying levels of success getting high-priority candidates through their programs? How do local high need districts perceive teachers coming from Noyce institutions, and has the availability of the Noyce program graduates reduced staffing challenges? The mixed method study takes place in three stages; Programmatic data inventory (Kumar, Moffitt, and Ver-ner, 2022), Alumni survey, and Interviews with university program and school district staff. To gather background information for this multi-pronged research of Noyce programs, a review of selected Noyce program evaluations was undertaken.

Method
The review of the Noyce program evaluation proceeded as follows. An internet search using the terms Noyce, Evaluation, STEM, Track 1, Track 2, Track 3, Track 4 in various combinations re
resulted in 38 documents. A review of the 38 documents, after eliminating duplications (e.g., multiple publications and presentations of the same study) resulted in 11 usable evaluation reports for the review, representing approximately 989 participants (including students, faculty members, alumni, and mentors). Two of the evaluations did not share the numbers involved. The evaluation reports reviewed are as follows: Alemdar et al. (2018), Greer (2015), Lawrenz et al. (2008), Manning et al. (2012), McCoy (2020), Mumford and Newcomer (2019), Sampson (2012), Travis et al. (2014), Wang (2014, 2013), and Whitefield (2017). The review of the Noyce evaluation reports focused on the following factors; purpose, recruitment, procedure, participants, methods, results, and evaluative recommendations to the program.

**Early Findings**

The main theme across the evaluations in terms of their purpose is to find qualified educators who can teach in a high need school district with a STEM concentration and program ability in improving teacher quality. A majority of Noyce programs evaluated are from public institutions.

In terms of procedure, the data was collected via surveys, phone call interviews, observations, and other resources. Also, recruitment processes occurred through marketing strategies such as institution websites, STEM programs, flyers/brochures, social media, or school events. It should be noted that one evaluation used a Perceived Stress Scale due to the fact that the evaluation was conducted when COVID-19 first emerged.

The total number of participants (including students, faculty members, alumni, and mentors) was approximately 989. Two of the evaluations did not share the numbers involved. Out of the 11 evaluations reviewed, 2 reports consisted of post graduates of the program, 2 reports consisted of faculty members or mentors to help participants in the program to achieve their needs in terms of teaching at a high need school and 2 included non-Noyce Program participants.

Not every evaluation analyzed reported clear and consistent demographic data. Four evaluations provided information on the gender demographic of participants. Four reported the ethnicity of their participants, but only two provided both white and minority groups.

An overarching theme, efficacy, was evident in the evaluations. Efficacy helped to empower scholars to develop expertise by trying out new ideas, and building confidence to teach in high need schools. It also enabled scholars to develop and teach meaningful STEM lessons. As a result, the Noyce scholars were prepared to teach at a high need school at the end of their program. Another theme found was that an individual’s motivation to apply to the program might be due to the incentive the Noyce scholarship provided. A few scholars used the scholarship to develop their research experience and skills. There is no evidence that these scholars intended to teach.
The importance of mentoring was found in 6 of the evaluations. Mentors in one program were dedicated master teachers who joined the program for one year. Mentoring was seen as an important variable to create positive perceptions. Not every scholar fulfilled the scholarship commitment. Some scholars reported poor treatment of teachers by school administration, low salaries, and difficulty finding jobs in high need schools.

**Evaluative Recommendations**

In addition to presenting their findings, most evaluations reviewed also made recommendations for improvement. Some of the common themes emerging from their recommendations: 1) develop a targeted selection process for identifying STEM students interested in teaching 2) prepare for the realities of teaching in high need schools, 3) provide tailored opportunities (e.g. shadowing an experienced STEM teacher) for teaching in high need classrooms, 4) provide summer opportunities to work in “unfamiliar” school districts under the supervision of experienced STEM teachers to broaden scholars’ understanding of the actual value of teaching, 5) engage in “courageous” conversations about race and ethnicity with Noyce scholars, 6) provide more assistance with job placement, and 7) enhance opportunities for team building and community development before and after graduation from the Noyce program.

**Discussion, Implications and Recommendations**

Considering the limited sample size, it is difficult to generalize the findings of this review of Noyce program evaluation reports. Efforts should be made to increase the sample size with additional relevant Noyce program evaluation reports. It should be noted that an accurate number of participants was not clear as reported by some evaluation reports reviewed, leading to approximations based on available information. Based on the reports reviewed, the Noyce programs are preparing STEM teachers for high need schools. A majority of the Noyce programs evaluated are in public institutions. Most of the evaluations also indicate the need for improvement. One evaluation conducted a Stress Perceived Scale along with interviews due to the fact the evaluation was conducted when COVID-19 first emerged. It is clear from the reports that the relationship of the school district and the university is paramount to the success of the program. Assistance with placement of scholars in a school involves the support of school district partners. Mentoring is a prominent mention throughout the reports. A strong mentor can guide and assist the scholar to develop a stronger sense of reflection and efficacy to become a more confident teacher in a high need school. In one report the entire advisory board acted as mentors (Wang, 2014). This program resulted in 87% of the graduates willing to remain in high need schools after graduation.
Findings from the reports reviewed indicate the need for policy to support STEM teaching at all levels. Scholars felt a lack of support for their work in high need schools. The STEM industry provides many opportunities for individuals in society. Teaching is not the highest paid of these opportunities. In order to keep STEM field experts in teaching, policy should be developed to recruit and keep qualified STEM teachers in high need schools. This policy work must include guidelines and expectations for STEM degree teachers.

It is clear that the Scholars are better able to manage the program and the teaching responsibilities with the support of a mentor. The authors recommend that the Noyce program grant include mentor support through a structured mentor program to all scholars who are a part of the Noyce Scholarship STEM program. Efforts must continue to maintain demographic records of Noyce scholars throughout the program. This will assist researchers and evaluators to determine the level of diversity in the program from start to finish, and diversity of alumni that remain in the teaching force. Information on the nature of the curricula and its implementation is essential to understand the nuances of the Noyce programs. This will assist evaluators as well as stakeholders to understand and develop successful program design.

Our review of the evaluations of Noyce programs indicated an overall positive effect of the NSF Noyce teacher preparation programs in preparing STEM teachers for high need schools. We recommend continued evaluations of Noyce programs and availability of evaluation reports for further review and research.

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Using Student Teaching Evaluations to Assess the Efficacy of a Robert Noyce Teaching Scholarship in Preparing Candidates for Culturally-Responsive Practices
by Teresa J. Bixby and Lauren Landando

Author Bios
Teresa Bixby, Ph.D., is an associate professor of chemistry and the university assessment coordinator at Lewis University. Aside from her work in disciplinary-based education research she advises pre-service teachers and conducts observations of secondary education chemistry candidates. Dr. Bixby is an NSF ASECND fellow and serves as senior personnel on an NSF S-STEM grant, Project Synergy, aimed at instilling a sense of belonging in a diverse study body while developing connections between chemistry, physics, engineering, and data science. Dr. Bixby is also a POGIL facilitator and the working group chair for POGIL learning communities. She can be reached at bixbyte@lewisu.edu.

Lauren Landando is a Noyce scholar who graduated from Lewis University in the spring of 2022 with a BA in chemistry and secondary education. As a part of her capstone research Lauren presented this work at Iota Sigma Pi – Aul’s 2022 biennial undergraduate research symposium. She will begin her first year as a high school chemistry teacher at Oswego High School in Oswego, IL in the fall of 2022. She can be reached at laurenmlandando@lewisu.edu.

Abstract
The goal of the NSF Robert Noyce Teaching Scholarship is to attract and support highly qualified STEM majors to become secondary-education teachers that are prepared to teach in high-needs schools. At Lewis University program activities targeted 1) teaching diverse learners, 2) inquiry and active-learning pedagogies, and 3) strengthening content knowledge. When the climate in education changed nationally mid-grant, activities to explicitly address culturally-relevant practices were developed. Since this emphasis was not directly addressed in the grant evaluation, here the use of student teaching evaluations as a tool to assess preparation in culturally-relevant practices is explored. Although some distinctions between Noyce and non-Noyce candidates can be seen, the variability in evaluators and the complexity of the evaluation components obscure the significant differences in preparedness reported by mentors in the first years of service. New program requirements for culturally-responsive practices from the Illinois State Board of Education will take effect in 2025. Given that the current teaching evaluation components do not clearly address these practices, we recommend significant revisions to simplify criteria and align directly with the new program requirements.

Introduction
Warnings of an impending teacher shortage crisis in a 2016 Learning Policy Institute report were echoed in the 2018 Illinois State Board of Education report that identified teacher shortages as a challenge in K-12 education (Sutcher et al., 2016; Meeks & Smith, 2018). Special education, math,
and science were recognized as the areas with the most considerable shortages nationwide. The crisis continues as 77% of Illinois superintendents reported dealing with a teacher shortage in 2021, and shortages have increased as a result of the COVID-19 pandemic. At the same time, there is a gap in performance between white students and those from historically underserved populations or low in socioeconomic status. Thus, it has become imperative to increase the number of highly-qualified STEM teachers who are prepared to teach in high-needs contexts. At Lewis University, faculty from teacher education and STEM disciplines were awarded a $1.4M Robert Noyce Scholarship grant from the National Science Foundation in 2016. The Noyce Teacher Scholarship Program was designed to recruit, support, and retain STEM majors to become K-12 teachers in high-needs school districts. Aside from scholarship support, activities for Noyce scholars were directed toward three main targets: 1) enhance preparedness for diverse learners, 2) expose teacher candidates to active-learning and inquiry-based pedagogies, and 3) deepen content knowledge in their field. Here, we focus on the first target.

In order to enhance the preparedness of candidates to teach diverse learners, the program augmented existing required coursework and provided several unique opportunities for scholars to further develop instructional strategies and methods of differentiation. These experiences were meant to help candidates recognize and understand who their students are as people so they could deliver content in a relevant way. In addition to a reality-based learning practicum, targeted professional development workshops, and instructional assistant experiences with university faculty, scholars were required to complete an extra field experience and their student teaching clinical in high-needs classrooms.

All pre-service teachers at Lewis are required to complete two field experiences of 50 clock hours each, for 100 hours total. Field experiences are primarily observational. They are designed to allow the candidate to progress from a novice who is seeking knowledge to a candidate who is ready to enter into an apprenticeship and assume full responsibility for planning, implementing, and assessing the curriculum during their clinical experience (student teaching). The education department ensures that teacher candidates are placed with highly qualified mentor teachers and with varied demographic experiences. The secondary education program, additionally, expects candidates to complete field experiences within their content area. For all teacher candidates at least one of these experiences must be completed in a culturally, linguistically, or economically diverse school setting. Noyce scholars were placed in a third field experience in a high-needs classroom for an additional 50 clock hours. This additional placement was integrated into a required course, special methods of math/science, which allowed scholars to focus on the specific application of pedagogical approaches used in high-need math and science classrooms. More than the other field experiences, this third experience was enriched by active collaboration between university faculty and the school staff to provide a more structured and meaningful experience for the scholars.
At the end of a teacher preparation program, candidates complete a 15-week full-time teaching assignment in their student teaching clinical experience. During this time, candidates are expected to execute all the functions of a classroom teacher, including the design of instructional materials, delivery of content, classroom management, formative and summative assessment of student learning, and communication with parents and school staff. Secondary education candidates are placed with cooperating teachers in their discipline who provide daily guidance and feedback, and who communicate regularly with the university supervisor. Six formal observations by university faculty from education and in the candidate’s discipline are used to measure their progress throughout the experience. At the end of the experience, the mentor teacher completes a final evaluation form based on the state’s criteria. For this final clinical experience Noyce scholars were placed in a high-needs classroom with highly experienced mentor teachers. Prior to the experience these mentor teachers participated in a half-day seminar that communicated the goals of the Noyce program and provided professional development focused on best practices related to mentoring, observation, and feedback.

In 2018, mid-grant, the climate in education shifted as the demographic gap between teachers and students became apparent (Figure 1, Schaeffer, 2021) and the need for explicit instruction in culturally-responsive teaching practices became an important aspect to any high-quality teacher preparation program.

![Figure 1: Demographic breakdown for K-12 teachers and their students in the United States (Schaeffer, 2021).](image-url)
Culturally-responsive teaching practices are approaches to teaching that leverage students’ experiences and cultural context in the learning process, allow students multiple opportunities to demonstrate their learning with a variety of assessment strategies, and recognize the often-persistent conflict between mainstream expectations and students’ cultural identity (Hammond, 2014). The benefits of culturally responsive practices extend from facilitating brain processes to motivation and mental health, and they have been shown to improve educational gaps between students from historically marginalized populations and those from the dominant culture.

Training in culturally-responsive practices usually begins with coursework or professional development opportunities and builds outcome-expectancy—the belief that using the framework will lead to improved outcomes (Siwatu, 2007). For example, professional development discussions can help teachers understand the benefits of improved reading comprehension, critical thinking, and mental health of marginalized students. However, teachers with high outcome-expectancy and low self-efficacy are at risk of withdrawal from the framework if they perceive themselves to be incompetent in implementation. Observation or practice of the principles during field experiences and student-teaching practicum help pre-service teachers understand the application of the pedagogy, which improves self-efficacy and future performance. Barnes et al. (2006) assessed teacher candidates after participating in a structured field experience in a majority Black school with a low-intermediate reading level. Within this experience, pre-service teachers learned how to apply culturally-responsive practices in different content areas and they began to understand that students are connected to a very complicated social/cultural network. Working with these students gave the pre-service teachers advanced insight about who their future students might be. Given the requirements that Noyce scholars be placed in high-need classrooms for field and practicum, these efficacy-building activities were already in place. Similarly, the program’s focus on instructional design and differentiation were well-aligned with culturally-responsive practices. To explicitly expose scholars to the framework and help them build outcome expectancy, a seminar course was developed for Noyce scholars in 2018 that was required to be taken concurrently with their second field experience. The curriculum centered on Hammond’s, Culturally-Responsive Teaching and the Brain (2014) and Edmin’s, For White Folks Who Teach in the Hood (2016). Scholars engaged in readings, discussion, research topics, case study analysis, and lesson development. Special attention was paid to variety in assessments to differentiate, as well as recognition of potential cultural differences between teachers and students.

This Noyce program was successful in supporting 29 secondary education STEM scholars over the 6-year course of the grant. Scholars had a 92% retention rate at the University and 89% of scholars are fulfilling their obligation to teach in a high-needs district for their first 4 years of service. For the assessment of Noyce scholarship programs, teacher candidates are most commonly surveyed or interviewed, or are given unique experiences that they can reflect on to evaluate their

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progress and performance (Howard et al., 2018; Bischoff et al., 2017; Mundy & Ratcliff, 2021; Monarrez et al., 2021; Morrell & Salomone, 2017). Exit interviews and feedback from mentors were also collected to evaluate this program. Both scholar perceptions and mentor reports indicate that the Noyce scholars were better prepared for the first years of teaching than other recent graduates, though these data are not focused specifically on culturally-responsive practices. Here, evidence for enhancement in culturally-responsive practices is sought through student teaching evaluations.

Evaluations of the student teaching experience provide a direct measure of pre-service teacher performance. Student teaching evaluations mandated by the state are score and comment based, which provide quantitative and qualitative evidence. The final evaluation includes three major categories containing 31 competencies on which candidates are scored. The categories and competencies are summarized in Table 1. Competencies under teaching preparedness/skill are further described by 3-9 indicators, which are fully iterated in the appendix. The goal of this study is to determine if these data-rich evaluations (which are completed for every candidate anyway) are a useful tool for assessing the efficacy of the Robert Noyce Teacher Scholarship at Lewis University, specifically in its ability to prepare STEM teachers for high-needs classrooms by focusing on culturally-responsive practices.

<table>
<thead>
<tr>
<th>Teaching Preparedness/Skill</th>
<th>Professionalism (Work Habits)</th>
<th>Professionalism (Personal Habits)</th>
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</thead>
<tbody>
<tr>
<td>A. Attention to Diversity</td>
<td>L. Follow guidelines/rules</td>
<td>W. Demonstrates respect for the feelings, opinions, and abilities of others.</td>
</tr>
<tr>
<td>B. Command of Subject Matter</td>
<td>M. Meets obligations and deadlines</td>
<td>X. Demonstrates a positive attitude.</td>
</tr>
<tr>
<td>C. Appropriate and Engaging Practices</td>
<td>N. Demonstrates regular attendance and punctuality</td>
<td>Y. Uses effective interpersonal skills.</td>
</tr>
<tr>
<td>D. Planning for Differentiation</td>
<td>O. Submits work reflecting high standards</td>
<td>Z. Demonstrates awareness of social behaviors and expectations.</td>
</tr>
<tr>
<td>E. Learning Environment</td>
<td>P. Reflects on and takes responsibility for own behavior</td>
<td>AA. Displays appropriate affect and emotions.</td>
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<td>---------------------------------------------------------</td>
<td>------------------------------------------------</td>
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<tr>
<td>F. Instructional Delivery</td>
<td>Q. Functions in a variety of group roles</td>
<td>AB. Knows areas of personal strengths and weaknesses.</td>
</tr>
<tr>
<td>G. Literacy and Communication</td>
<td>R. Spends time outside school preparing for class</td>
<td>AC. Demonstrates tenacity and self-reliance in pursuit of solutions.</td>
</tr>
<tr>
<td>H. Assessment</td>
<td>S. Prepares materials in advance</td>
<td>AD. Accepts suggestions and positively modifies behavior.</td>
</tr>
<tr>
<td>I. Collaborative Relationships</td>
<td>T. Handles routine tasks promptly, efficiently, and consistently</td>
<td>AE. Sets clearly articulated high expectations for self and individuals.</td>
</tr>
<tr>
<td>J. Leadership/Advocacy</td>
<td>U. Gives clear, specific, and timely feedback to students</td>
<td></td>
</tr>
<tr>
<td>K. Reflection</td>
<td>V. Models digital etiquette and socially appropriate use and forms of digital communication.</td>
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**Experimental Methods**

**Participants**

Participants in this study included 44 secondary education teacher candidates, 22 Noyce and 22 non-Noyce candidates. All participants were identified with a content area specialization and participated in student teaching at the high school level between Fall 2016 and Fall 2020. Between Fall 2020 and the end of the grant 7 more scholars completed the program. Content area breakdown for research participants are shown in Figure 2. Secondary education students may be undergraduate or master’s level students. Noyce scholars were 36.4% undergraduates and non-scholars were 45.5% undergraduates.
Figure 2: Content area distribution for (a) Noyce and (b) non-Noyce pre-service teachers.

Table 2 illustrates the racial/ethnic profile for all 29 Noyce scholars, all students in the education department, and nationally. Lewis is an emerging Hispanic-serving institution with significant populations of first-generation, Pell-eligible, and Muslim students. Though our middle-eastern Muslim students are culturally diverse and often marginalized they identify racially as white – they comprise 6.9% of our scholars.

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<tr>
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<tbody>
<tr>
<td>White</td>
<td>79%</td>
<td>78.6%</td>
<td>82.8%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>9%</td>
<td>11.8%</td>
<td>10.3%</td>
</tr>
<tr>
<td>Black, African American</td>
<td>7%</td>
<td>2.9%</td>
<td>0%</td>
</tr>
<tr>
<td>Two or more races</td>
<td>2%</td>
<td>1.8%</td>
<td>0%</td>
</tr>
<tr>
<td>Asian</td>
<td>2%</td>
<td>0.9%</td>
<td>6.9%</td>
</tr>
<tr>
<td>Native Hawaiian or Pacific Islander</td>
<td>1%</td>
<td>0.4%</td>
<td>0%</td>
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The student teaching evaluations were classified as historic data so participants were not notified, nor did they provide informed consent. However, the administrator responsible for gathering the records masked the identity of all files prior to sharing with the research team. This study was IRB approved.

Quantitative Analysis
In the final evaluation of the clinical experience the cooperating teacher or university supervisor assigns a score to each subcategory based on the 15-week performance. The ratings are a 0-4 Likert-scale; 0 - missing, 1 - unacceptable, 2 - acceptable, 3 - on target, and 4 - exceeded. There is a space for relevant comments after each category as well as an overall comment box. The evaluators in this study are largely the cooperating teachers in the classrooms and occasionally a university supervisor from the secondary education program.

The subcategory ratings for Noyce and non-Noyce candidates were averaged by status and the percent difference between categories was determined as in Equation 1.

\[
\% \text{difference} = \frac{\text{average}_{\text{Noyce}} - \text{average}_{\text{non-Noyce}}}{4} \times 100\% \text{Eq. 1}
\]

The determination of statistical differences in the Likert-scale data of scholars and non-scholars was performed using the non-parametric Mann-Whitney U-test.

Qualitative Analysis
The comments provided by evaluators were analyzed iteratively by one primary coder in the qualitative data analysis software, ATLAS.ti. A second coder spot checked the coding at multiple points throughout the analysis to ensure face validity. The deductive approach of grounded theory was used to code comments aligned with the evaluation subcategories (Siwatu, 2007). An inductive approach was used to discern themes from comments related to culturally-responsive teaching practices.

Results and Discussion
Quantitative analysis of the Likert-scale data reveals that Noyce scholars outperform non-Noyce candidates in 27/31 competencies. Although there is a statistical difference in only one competency, H) assessment is 14% higher for scholars, it is apparent that Noyce scholars received consistently higher ratings than non-scholars in the teaching preparedness/skill category. Other high-performing competencies in this category include C) appropriate and engaging practices (8% higher than non-Noyce) and F) instructional delivery (10% higher than non-Noyce). These observations are aligned with the emphasis of the program on instructional strategies and methods of
differentiation. Despite these notable differences it is not surprising that there is only one statistically significant difference given the many sources of variation in the evaluation. With this relatively small sample size it is difficult to identify small differences as statistically significant. The variation of evaluator leads to a large variation in the average rating for each group. Ideally each pre-service teacher is evaluated by the cooperating teacher who has been mentoring them in the classroom throughout their clinical experience. However, depending on the experience and engagement of the cooperating teacher they may have more or less context for evaluating the skills of the apprentice. Additionally, the complexity and overlap of the evaluation criteria confound the categories. Thus, with a 12-15% standard deviation in the average rating it is reasonable that only the largest differences will be identified as statistically significant.

To focus on evidence of preparation in culturally-responsive teaching practices a collection of several competencies is examined. In particular, indicators for the following competencies describe some aspect of culturally-responsive teaching; A) attention to diversity, B) command of subject matter, C) appropriate and engaging practices, D) planning for differentiation, E) learning environment, F) instructional delivery, H) assessment, J) leadership and advocacy, and W) demonstrates respect for others. It is important to note that although these competencies include aspects of culturally-responsive practices they are not exclusive to other facets of teaching. Indicators relevant to culturally-responsive practices are highlighted in the appendix. Figure 3 illustrates the percent difference between scholars and non-scholars on these competencies. Comparison reveals modest quantitative over-performance of Noyce scholars on 8/9 relevant competencies, only one of which is statistically significant (H).

![Figure 3: Percent difference between Noyce and non-Noyce average score by competency. Competencies A-J are all included in the Teaching Preparedness/Skill category, W is under Professionalism (Personal Habits). An * indicates a statistically-significant difference to 95% confidence.]
Only ~50% of evaluations included comments, though evaluations of Noyce scholars were as likely to have comments as those of non-Noyce candidates (12/22 Noyce, 11/22 non-Noyce). While Noyce scholars had fewer words written in the comments (average 88 words per Noyce, 141 words per non-Noyce), the number of comments relevant to the evaluation competencies were greater. Table 3 lists the number of codes identified by relevant competency for each set of pre-service teachers. The majority of comments were positive, so the few that indicated improvements were coded separately and they are denoted with “i” in Table 3. The code frequencies show more comments for Noyce scholars in these competencies and only one comment each that is directly related to A) attention to diversity. However, the breadth of these competencies means that a quote coded as F) instructional delivery, for example, may or may not be relevant to culturally-responsive practices.

Analysis of only the comments relevant to culturally-responsive practices produced 4 themes; 1) building rapport with students, 2) understanding and caring about students, 3) personalized activities to meet specific needs, and 4) equitable practices. Table 4 includes all the relevant comments; however, it is clear that there is no longer an advantage in the number of comments written about scholars versus non-scholars. In addition, the quality of the comments is comparable, not revealing any significant differences between the two sets of candidates.
Table 3: Code frequencies for Noyce and non-Noyce scholars by relevant competency. “i” denotes an improvement.

<table>
<thead>
<tr>
<th>Relevant Competencies</th>
<th>Frequency</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Noyce</td>
<td>Non-Noyce</td>
</tr>
<tr>
<td>A. Attention to diversity</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>B. Command of subject matter</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>C. Engaging Practices</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>D. Planning for Differentiation</td>
<td>1, 1i</td>
<td>2</td>
</tr>
<tr>
<td>E. Learning Environment</td>
<td>4, 1i</td>
<td>3</td>
</tr>
<tr>
<td>F. Instructional Delivery</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>H. Assessment</td>
<td>1</td>
<td>2, 2i</td>
</tr>
<tr>
<td>J. Leadership and Advocacy</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>W. Demonstrates respect for the feelings, opinions, and</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>abilities of others</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Total                                                     | 32, 2i    | 18, 2i  |

The similarities and overlap in the competencies also limited the qualitative analysis. Some comments did not clearly fall into only one competency and so would be coded as two or more. Examination of these co-occurrences reveals a strong relationship between competencies P) reflects and takes responsibility for own behavior, AB) knows areas of personal strengths and weakness, AC) demonstrates tenacity and self-reliance in pursuit of solutions, and AD) accepts suggestions and positively modifies behavior. These all seem strong indicators of metacognition and a growth mindset. In comparing Noyce and non-Noyce candidates, however, there was little difference in the number or quality of each of these types of comments.
Table 4: Comments related to culturally-responsive practices for Noyce and non-Noyce candidates.

<table>
<thead>
<tr>
<th>Noyce Candidates (10)</th>
<th>Non-Noyce Candidates (10, 1i)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Building Rapport with Students</strong></td>
<td><strong>Some suggestions that [Name] can improve on would be to get to know the students in class...</strong></td>
</tr>
<tr>
<td>“[Name] showed growth and improvement in their countenance in the classroom and their working relationships with the students...”</td>
<td>“[Name] has built strong relationships with students, communicated with parents, and showed respect for all cultures represented in the classroom.”</td>
</tr>
<tr>
<td>“[Name] has developed a strong rapport with their students and creates an environment conducive to learning.”</td>
<td>“[Name] was able to form relationships with students which helped with students’ participation in class.”</td>
</tr>
<tr>
<td>“Their ability to connect with students and build rapport with them is an area that [Name] exceeded in.”</td>
<td>“[Name] quickly established a strong and positive rapport with my students...”</td>
</tr>
<tr>
<td></td>
<td>“[Name] has built strong rapport with... students.”</td>
</tr>
<tr>
<td><strong>Understanding and Caring About Students</strong></td>
<td><strong>[Name] understands the needs of their students ... understanding that every student learns in a different way.”</strong></td>
</tr>
<tr>
<td>“[Their content knowledge is unparalleled among ‘student teachers’... This translated to a very thorough understanding of their students.”</td>
<td>“Their teaching style is calm and non-threatening, but their greatest strength is their understanding of each individual student.”</td>
</tr>
<tr>
<td>“[Name] not only works well with students but is also a genuinely empathetic person. [Name] possesses a deep sense of caring for the success of every student.”</td>
<td></td>
</tr>
</tbody>
</table>
### Personalized Activities to Meet Specific Needs

<table>
<thead>
<tr>
<th>Quote</th>
<th>Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Through [Name’s] time they grew in their understanding in how to accommodate students’ academic and social-emotional needs.”</td>
<td>“[Name] focuses all planning, classroom management, instruction, and professional responsibilities around what is best for students academically and socially-emotionally.”</td>
</tr>
<tr>
<td>“They personalized activities to make them relevant to their students.”</td>
<td>“[Name] provided modifications and accommodations for students with and without IEPs.”</td>
</tr>
<tr>
<td>“[Name] has the ability to motivate students, develop dynamic lessons, and provide for the needs of their students.”</td>
<td>“[Name] used daily formative assessments to meet the specific needs of freshmen students at [our school].”</td>
</tr>
</tbody>
</table>

### Equitable Practices

<table>
<thead>
<tr>
<th>Quote</th>
<th>Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>“[Name] has spent a great deal of time learning about standards based grading, preparing re-takes, review and writing standards, and communicating to parents about these grades.”</td>
<td>“[Name] provided an equitable learning experience for all students.”</td>
</tr>
</tbody>
</table>

### Conclusions

Overall, student teaching evaluations were somewhat useful in distinguishing Noyce from non-Noyce candidates in teaching preparedness and skill at the end of their academic training. Considering all scores and comments, there is some compelling evidence that Noyce scholars were more skilled in active-learning and inquiry-based pedagogies. Consistent over-performance in the teaching preparedness/skill category with particularly high scores in C) engaging practices, F) instructional delivery, and H) assessment, as well as the number and quality of comments in these components, are aligned with the program’s emphasis on instructional delivery and differentiation. This supports interview data from school-based mentors for scholars in their first year of service. Mentors responded, unequivocally, that Noyce scholars were much better prepared than other STEM graduates for their first year of teaching. Provided the high-needs context of their classrooms this feedback could be interpreted as evidence of enhanced preparation with culturally-responsive practices, but this was not interrogated explicitly as a part of the grant evaluation. Here, the evidence that can be found in student teaching evaluations does not clearly differentiate Noyce scholars from other candidates with respect to these specific practices. Given the variation in evaluator and the complexity and overlap of the evaluation criteria with respect to culturally-responsive practices we have found that these data are not a particularly useful assessment for this purpose.
Given the widening demographic gap between teachers and students in the US the Illinois State Board of Education has updated pre-service teacher program requirements to include instruction in culturally-responsive practices. These new requirements will take effect in 2025. However, provided the evidence in the analysis here it is apparent that the student teaching evaluation criteria also need to be revised to assess culturally-responsive practices directly.

In the wake of the Noyce scholarship grant the program of study for all teacher candidates at Lewis University has been strengthened and will be prepared for the changes in state requirements, e.g. the seminar course that explicitly examines culturally-responsive practices is now open to any candidate and is still aligned with the second required field experience. A second Noyce scholarship grant is slated for submission in the fall of 2022. Changes to the program include reducing the number of scholar requirements in favor of deepening engagement. For example, instead of increasing the number of field experience hours the program will focus on improving the quality of the hours that are required by integrating a skilled mentor team. Similarly, scholars will still take the seminar course focused on culturally-responsive practices, but their engagement will be enriched through communities of practice with experienced mentor teachers, university faculty, and former scholars who are still in the early years of their teaching career. Future work to investigate the impact of this curriculum includes explicit interrogation of candidates’ preparation and self-efficacy in culturally-responsive practices. Siwatu (2007) has described two sets of survey items that are appropriate for assessing these aspects, but also interviews with candidates and mentors will include targeted questions.

References


APPENDIX

Teaching Preparedness/Skill Subcategory Expanded Descriptions

Indicators relevant to culturally-responsive practices are underlined.

- **ATTENTION TO DIVERSITY** - (1) Creates a learning community in which individual differences are recognized and respected. (2) Uses information about students' individual experiences, families, cultures and communities to create meaningful learning opportunities. (3) Promotes inclusive practices such as using first person language and modeling high expectations.

- **COMMAND OF SUBJECT MATTER** - (1) Uses a variety of materials/resources beyond teacher's manual, as appropriate, to plan lesson and enhance learning. (2) Effectively communicates subject matter to students. (3) Makes purpose of instructional plan clear and makes connections to students' interests. (4) Demonstrates command of subject matter in eliciting and responding to students' questions/discussion. (5) Explanation of content is concise and engaging and connects with students' knowledge and experience. (6) Directions and procedures are clear to students. (7) Anticipates possible student misunderstandings. (8) Identifies links between ideas/concepts from content to other areas. (9) Presents multiple perspectives of ideas/content.

- **APPROPRIATE AND ENGAGING PRACTICES** - (1) Implements lessons that use teaching strategies that reflect the needs of students and/or their abilities. (2) Is flexible and able to adjust instructional plans. (3) Uses technology fluently to support instruction and enhance student learning including assistive technology and digital tools, as appropriate, to meet the needs of all students. (4) Engages students in critical thinking and inquiry.

- **PLANNING FOR DIFFERENTIATION** - (1) Uses differentiation strategies, materials, pace, levels of complexity and language so lessons are meaningful to a diverse student population and learning needs. (2) Uses data to plan and implement lessons. (3) Uses Common Core Standards (and/or other appropriate standards) and understands how to apply them to the lesson. (4) Accesses prior knowledge and links new ideas to familiar ideas and experiences. (5) Incorporates adaptations and accommodations from individual student plans (ELL, IEP, 504 RtI plans) to ensure the success of every student.
LEARNING ENVIRONMENT - (1) Creates a safe and culturally responsive learning environment. (2) Establishes clear expectations and procedures for communication and behavior. (3) Organizes, allocates, and manages time, materials, technology, and physical space to create a productive learning environment for all students. (4) Uses approaches and strategies that engage and motivate students. (5) Employs variety of techniques that promote positive behavior interventions and supports. (6) Anticipates, prevents, and responds to student behavior.

INSTRUCTIONAL DELIVERY - (1) Employs developmentally appropriate instruction and modes of delivery. (2) Adjusts language to match the developmental language of the students. (3) Implements instructional plans that reflect the content and complexity of the learner. (4) Monitors, evaluates, and adjusts instruction and curriculum based on students' needs and individual student performance data. (5) Creates learning opportunities that engage students, promote higher-order thinking and performance and continuous growth and learning. (6) Presents diverse perspectives and/or multiple methods of explanation and presentation of concepts.

LITERACY AND COMMUNICATION - (1) Models standard conventions of oral and written communication. (2) Implements background knowledge, information in text, and purpose of reading to develop student comprehension. (3) Recognizes the relationships between reading, writing, and oral communication and embeds those components across the curriculum to increase student learning. (4) Models digital literacy in the selection, use, and evaluation of digital tools and digital information.

ASSESSMENT - (1) Creates appropriate pre-assessments to determine students' prior background knowledge and skills. (2) Utilizes data from pre-assessments to create instructional plans that meet the needs of all students. (3) Uses varied pre-, formative, and summative assessment to gauge student learning and make instructional decisions. (4) Aligns Common Core standards (and/or other appropriate standards) with objectives and assessments. (5) Employs a variety of assessment techniques to check for understanding and mastery of content. (6) Incorporates authentic and performance-based assessment.

COLLABORATIVE RELATIONSHIPS - (1) Works successfully with cooperating teacher, para-educator(s), team members, the school community, and the university supervisor. (2) Develops appropriate relationships with students. (3) Takes initia
tive to involve parents/guardians in student achievement. (4) Understands the various models of co-teaching and the procedures for implementing them across the curriculum. (5) Participates in collaborative decision making and co-teaching/planning, if available.

- **LEADERSHIP AND ADVOCACY** - (1) Shows respect and demonstrates a commitment to all students. (2) Respects confidentiality of students and the school community. (3) Knows laws and rules for fair and just treatment of all students and their families (4) Understands and models appropriate dispositions in the classroom and school community. (5) Understands the role of the teacher as leader and advocate and explores ways to grow professionally in this area.

- **REFLECTION** - (1) Able to assess lesson's effectiveness. (2) Analyzes the strengths and challenges of the lesson. (3) Discusses specific ways in which lesson can be modified. (4) Reflects on own practice and how it impacts student learning. (5) Incorporates recommendations of observers (CT, US).
An *Uprising for Educational Justice: Black Lives Matter at School* is an anthology edited by Denisha Jones and Jess Hagopian. This edited volume, published in 2020, tells the story of the Black Lives Matter at School movement and how the movement began and sought to center the importance of Black Lives and Black humanity in school contexts through policy, pedagogy, and curriculum. This school movement and the subsequent volume were inspired by the Black Lives Matter movement and elevated racial tensions in the United States punctuated by the deaths of individuals like Trayvon Martin, Michael Brown, Sandra Bland, George Floyd, and countless others. The text chronicles how institutions, educators, parents, and students are doing the critical work of foregrounding the values of Black Lives and promoting anti-racist approaches to education.

Black Lives Matter at School is divided into five main sections with over thirty chapters and is categorized to help the reader navigate the creation, implementation, and growth of the Black Lives Matter at School (BLM@S) movement. Section one, the introduction, provides a historical and theoretical grounding for the BLM@S movement. This section first discusses the resurgence of the “Black freedom movement,” reignited by the death of Trayvon Martin, and the critical impact his death had on American history. Consequently, this moment is commonly thought of as the start of the Black Lives Matter movement, and it is also essential to understanding how the BLM@S movement came to be. Section one also details the events that led up to the creation of the BLM@S organization and, subsequently, the movement. This section also includes a feature article on John Muir elementary school in Seattle, the school that initiated the movement. Section two expounds upon the ideas of section one and discusses the early scholars and activists who offered support and a letter of solidarity. Additionally, this section discusses the creation of the national curriculum and “Week of Action.” The chapter provides specific details on each component of the week and recommendations on how the national week of action can become a year-round educational plan.

Section three of the text looks specifically at the work of school unions and their efforts toward anti-racist teaching and policies to promote the premise that Black Lives Matter at school. This section contains various interviews discussing the efforts of teachers' unions to promote the goals of the BLM@S movement and its central tenants. The school districts included were Chicago, New York, and Los Angeles, to name a few. Although each of the unions listed saw progress, there
was an equally great struggle. This chapter helps to illustrate the need for systemic and institutional supports to ensure that Black Live actually matter at school.

Section four of the text provides several examples of how educators have been at the forefront of the movement. Composed of essays, articles, interviews, and anecdotes, section four discusses a wide range of actions taken by teachers to support and further the BLM@S movement. This section discusses the successes and challenges of implementing these ideas in schools and classrooms. This section is compelling as it provides accounts of teachers implementing the BLM@S Movement's Week of Action curriculum and tenants. Accounts from across the country illustrate the continued resistance to anti-racist ideologies and pedagogy in a multitude of educational settings. Many articles describe a great deal of initial resistance. However, it is essential to note that due to the BLM@S programming, many of the students gained greater agency, empowerment, and were emboldened to have a renewed sense of pride in their racial identity.

Finally, section five of the text looks exclusively at the critical work done by students; the chapters in this section detail how students have become leaders and activists in the BLM@S movement. In these chapters, there are many interviews where students discuss their involvement in the BLM@S movement and how they have been galvanized by racial encounters they have personally experienced or witnessed. This section is a critical aspect of the text as it presents a first-hand account of how racial tensions are still palpable within American schools. Furthermore, it justifies and emphasizes the need for programs like the BLM@S national curriculum. Additionally, the examples of student leadership in this chapter provide the reader with frameworks of how to get students across the country engaged in BLM@S and other anti-racist social justice movements. The book concludes with an epilogue that considers the more significant inequities that arose due to the COVID-19 global pandemic.

An Uprising for Educational Justice: Black Lives Matter at School, is an excellent resource for anyone interested in joining the movement or intrigued by how the movement has progressed since its inception. The Black Live Matter at School movement could not have come at a more critical moment in history as America grapples with heightened racial tensions, not unlike those of the civil rights movement, a time when schools, educators, students, and parents seek to make sense of this complicated historical moment and the problematic social and racial issues that are a by-product of our times. The Black Lives Matter at School movement and this book provide a framework for advancing racial equality and anti-racist ideas in schools. Beginning with its list of national demands and continuing with its National Week of Action plan, the Black Lives Matter at School movement is a template—a plan that any school district can use, no matter its demographic makeup, to center Black humanity and begin the painstaking process of creating equitable educational conditions for all students. Thus, Black Lives Matter at School is an essential read for anyone
who seeks to engage in this work. The text beautifully chronicles the work that has already been done and provides a “playbook” for getting started.

In conclusion, An Uprising for Educational Justice: Black Lives Matter at School is an exceptional resource for anyone interested in an actionable approach to the anti-racist work of centering Black lives within the context of schools. This text, which is in many ways a manual, is easy to read and inspiring. In addition to the numerous interviews and first-hand accounts that allow the reader to gain an intimate understanding of movement dynamics, the book does a great job of providing historical references to illustrate a timeline of historical events of interest. Overall, this text is a fantastic compilation of articles and accounts that would provide support for even a novice educator's entry into the movement.
by Rochelle Peterson-Ansari

Author Bio:
Rochelle Peterson-Ansari is CEO, master trainer, and curriculum designer for Perceptions Unlimited, a training and coaching company that specializes in diversity, equity and inclusion as well as culturally competent leadership and instruction professional development programs, primarily for pk-20 educators and non-profit agencies. She holds a M.Ed. in Educational Studies from University of Vermont and a B.A. in Sociology from Bucknell University.

Rochelle has been serving in higher education in student affairs, academic affairs, and other divisions since 1988. Most recently, she coordinated the field experiences and partnerships for all La Salle University education department programs and instituted their first Culturally Relevant-Sustaining Educator speaker series designed to elevate the anti-racist cultural competence of department faculty, alongside students and school/agency partners.

Reading, Writing, and Racism: Disrupting Whiteness in Teacher Education and in the Classroom is Dr. Bree Picower’s bold call for teacher educators to “prepare teachers to become the kind of teachers students of color deserve”(p.145). This text is a must read for anyone engaged in curricular and pedagogical decision making that influences what is taught in pk-12 schools and how it is taught.

A teacher educator and co-director of racial justice in teacher education programs at Montclair State University in New Jersey, Picower begins with her analysis of the racist curriculum, #CurriculumSoWhite, that has gone viral on social media to expose not only the prevalence of racism in schools, but more importantly I would argue, how “teachers” replicate historical racism through what we teach in preK-12 schools and in teacher education preparation programs. I applaud the author’s intentional choice to use these examples of racist curricula found in popular culture today to deconstruct how they are symptoms of a much larger social problem, the reproduction of racial hierarchies through schooling. Picower helps us shift our gaze from the individual teachers and textbook publishers to how our own experiences with schooling socializes us all to reproduce the same narrative. If not intentionally interrupted, every person who happens to become a teacher will breathe in the smog of racism (Tatum, 2016) and inevitably perpetuate it through what and how we choose to teach.

Many faculty in higher education, like Picower, know how oppression operates systemically, however, due to a number of factors in the profession, are writing only to each other. This text was a refreshing departure from that norm. Picower is issuing a call to action to embed racial justice as
a core tenet of teacher education programs, yet she skillfully scaffolds her analysis of racist curricula making it accessible to the masses. She even demonstrates the depth of her knowledge about how racism works by paying homage to the many scholars of color who have written before her on the same subject. Since we are prone to accept her claims as valid and valuable because she is a white scholar, this acknowledgement helps to dismantle the impact of racism in the mind of the reader.

Early in the book, the author distinguishes the often conflated terms white supremacy, whiteness, and white people; then vividly depicts the correlation between teacher racial ideologies and their curricular choices through case studies of former white pre-service teachers to make the case for teacher education programs to address the foundational thinking of their students.

Throughout the book, Picower illustrates how racism manifests in preK-20 education, and is reproduced for every generation through vivid accounts, using the framework popularized by grassroots and social justice organizations known as the Four Is of Oppression. This framework asserts that all forms of oppression operate on four overlapping levels: ideological, institutional, interpersonal and internalized. #CurriculumSoWhite is one example of how racism operates on all four levels (p.11). She closes the text with data from leaders of teacher education programs that center racial justice which she calls RJPs (Racial Justice Programs) to give other teacher education programs in the US insight about how they too can center racial justice since research shows that this is not the norm.

To make the case for why she focuses on white teachers and teacher educators, Picower points to the 80% white teaching workforce that has been prepared to teach by the 78% white teacher educator workforce in the US. Most importantly, as the author contends, these white teachers frequently lack experience thinking about and addressing race. With a call to teacher educators to dismantle and reframe how white teachers are taught, centering racial justice, Picower walks the reader through the ways white people enact racism. To this end, she eloquently and necessarily defines the distinctions between white supremacy (the social order based on racial hierarchies), whiteness (an ideology-the way in which people, generally white people, enact racism in ways that maintain the broader system of white supremacy) and white people (pp.5-7).

There are a variety of curricular strategies that socialize children and youth in American schools to internalize existing racist ideologies (Whiteness), ensuring that racial hierarchies are maintained through the education system. Picower defines these strategies as the curricular “Tools of Whiteness”—White Out, No One is to Blame, Not that Bad, All Things Being Equal, White Gaze, Embedded Stereotypes, and Racist Reproduction.
I appreciate how Picower describes each tool and provides the often missing vivid depictions of how each concept is enacted in schools/classrooms and how it reinforces Whiteness through distortions and omissions of reality to mold every citizen to maintain historical racial hierarchies in our present and future lives.

The White Out tool, for example, is the omission of any reference to people of color at all. Did you learn which US Presidents were slave owners in 5th grade? For most of us, the answer is “No”. Picower contends that this tool of whiteness is the centuries old intentional attempt to protect the image of the country’s founders as good and the US founding story intact as a beacon of “freedom and equality for all” (p. 28).

Picower illustrates hopeful solutions throughout the text. In one example, she describes how Bill Bigelow, teacher and co-editor of Rethinking Schools magazine, confronted and reframed the absence of references to presidential slave ownership in the texts his school assigned for 5th grade. Bigelow simply asked his students a question, “Do you know how many presidents owned slaves?” His inquiry into textbooks, and other print and electronic resources found that reference to US Presidents’ slave ownership was omitted or unclear which in turn led him to question why that was the case. Bigelow’s culminating assignment engaged students in action to tell textbook editors their feelings about the missing information and to demand that the texts be revised.

After reading this book, fellow educators can not say they don’t know HOW to reframe current practices that perpetuate racism to those that advance racial justice.

For teacher educators to interrogate, dismantle and reframe the curricular Tools of Whiteness, Picower shares the structures, principles, program designs in five teacher education programs committed to transforming their pre-service teachers’ racial ideologies and practices, including the program she co-directs, The Newark Teacher Program at Montclair State University.

These sites of transformation for future teachers center race, prepare to disrupt whiteness, center the needs of children of color and the voices of communities of color, and prioritize relationships over all else while teaching the traditional technical aspects of teaching. Unfortunately, all of these programs are made possible through grants, and/or as initiatives or pilots that are not formally integrated into traditional programs. I would dare say, this is evidence that racism is still pervasive on our campuses, in our teacher education programs, and, therefore, affects the majority of teachers we send out into schools. However, these small but mighty mission driven, justice-centered programs still serve as exemplars for those who administer teacher preparation to reimagine, revise and reinvent programs to serve the higher goal of reframing the racial ideologies of future teachers.
The greatest strength of *Reading, Writing and Racism*, is the clear description of how people learn racism through schooling and other socializing forces. Without investigating resources like this book and those by countless people of color who came before, educators are doomed to repeat the atrocities of American schooling my generation was exposed to in our own schooling.

Picower mentions that not only White people have been educated to reproduce racism through schooling, however, I wanted more. I suspect that because of her positionality as a White teacher educator and co-conspirator for racial justice, she does not focus heavily on the fact that BIPOC educators were exposed to and use the “Tools of Whiteness,” too. Perhaps it is because of my own positionality as a Black teacher educator that I yearn for more interrogation of BIPOC educators internalized racism. And, at a time in our history when the educational community is recruiting more teachers of color to enter hostile learning and working environments as a solution to students of color thriving in schools again, it is imperative that we, too, answer the call to build our capacity to identify and reframe racial ideologies that harm our children and ourselves.

I also wanted a more direct call to teacher educators to address their own racial ideologies because most have been trained to separate their own practice from what they teach others. Having taught in teacher education programs for the past 15 years, I constantly see colleagues searching for strategies to teach pre-service teachers with no attention to their own healing and development in order to model what they expect of students.

I agree with Picower that our best opportunity to prevent harm to future generations is to embed racial justice frameworks into teacher education. However, it is also a call to our current teaching and teacher education workforces to intervene, interrupt, and dismantle “educational malpractice” NOW!

This text is overdue, but timely to counter the anti-Critical Race Theory debates that have risen to the level of proposed [legislative bills in 42 states in the US since January 2021](https://www.huffpost.com/entry/critical-race-theory-legislation-in-state)(Schwartz, 2022). This deeply misguided behavior further illustrates Picower’s point. Systematically trained with tools of whiteness, our contemporaries are in the streets, at school board meetings, in the state capitol buildings defending the reproduction of the supremacy of whiteness in the American imagination by seeking to ban anything that raises racial consciousness.

Perhaps after reading Picower’s call to disrupt whiteness in the development of our children and of their teachers, these fellow Americans will better understand what they are actually defending.

To my fellow educators, be prepared to gain tools to boldly and unapologetically re-envision your work that has served to reproduce #CurriculumSoWhite.
References


Voices for Educational Equity —
Future Issue Themes and Call for Submissions

Voices for Educational Equity is the online scholarly journal of the Center for Success in High-Need Schools posted on the Center website http://www.center4success.com. Voices articles, opinion columns, and book and media reviews reflect contemporary educational priorities, including growing societal concerns about impacts of inequity. Voices highlights scholarly research and innovative educator ideas and practices regarding emerging as well as persistent longtime issues, and invites the perspectives of all stakeholders to promote a productive dialogue. Unsolicited scholarly articles will be reviewed by scholar referees in the article subject field.

Articles, columns, and reviews for publication in Voices for Educational Equity should be submitted as Word document email attachments to Jerry Berberet, Ph.D., editor-in-chief (wgberberet@aol.com). Case studies addressing equity concerns are especially welcomed. Articles and case studies should be approximately 2,500-5,000 words and include a short author bio, an abstract of 100-200 words, a brief review of relevant research literature bearing on the article subject, a discussion of findings and results, a conclusion, and a reference bibliography. Columns are opinion pieces, ordinarily of 500-1,000 words, reflecting the views of the author. Book and media reviews should be 500-750 words in length. Authors are invited to email Jerry Berberet or call him (850-766-2656) to discuss a potential submission, request referee protocols, or to ask questions. Past issues of the journal can be viewed on the Center’s website; http://www.center4success.com

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Voices Future Issue Call, Volume 19, Number 1, “Social Emotional Learning (SEL)” (Deadline for Submissions, October 15, 2022)

Schooling, perhaps understandably, has always stressed cognitive development as the primary way of learning and knowing. Indeed, until the last half of the twentieth century most schooling, outside mathematics and the laboratory sciences, consisted of rote memorization of “factual” information. A major breakthrough occurred with Howard Gardner’s research on multiple intelligences beginning in the 1980’s, research on differing student learning styles, and the emergence of the special education field to address needs of students with a variety of learning disabilities. Today, social emotional learning has emerged as a discrete educational focus, not only to address special student needs but to acknowledge the wide range of backgrounds and cultural experiences that influence student success.
This issue of *Voices* will assess the state of social and emotional learning through questions such as these:

1. What theories explain social and emotional learning and what are current research findings on how educators might most fruitfully address social and emotional learning needs?
2. How should social and emotional learning needs be addressed in the school curriculum and be integrated with other student learning?
3. What models exist in teacher preparation curricula for effective pre- and in-service teaching for social and emotional learning?

**Voices Future Issue Call: Volume 19, Number 2, “Educator Wellness” (Proposed Submission Deadline, January 30, 2023)**

Educator wellness has emerged as a significant issue as schools have assumed, willingly and unwillingly, an expanding list of responsibilities in our fast-paced digital society. In part the need to pay attention to wellness reflects a larger concern for employee well-being that corporations, nonprofits, and governments have been forced to respond to in a pandemic environment in which all employers are scrambling to recruit and retain skilled employees. But, as well, the need to address educator wellness reflects inattention to the needs of teachers and other school employees at a time when educators are leaving the profession in record numbers. As a result schools and school districts find themselves in dire straits made more difficult because adequate investments have not been made to enable the new educator pipeline to respond adequately to demand. The lack of sufficient educator numbers to fill teacher vacancies has become, perhaps, the leading issue jeopardizing the future of American preK-12 education, as teacher shortages extend beyond urban and rural schools to also affect affluent suburban areas.

Various factors have contributed to the need for attention to educator wellness. Not only do nearly all parents work, but the growing number of single-parent families has strained the ability of many parents to work closely with schools in the education of their children. A steady increase in the past several decades in the percentage of students with learning disabilities, due to a variety of causes, along with society’s ever-growing academic and social expectations and frustrations with public schools—reflected in the rise of charter schools and increases in home schooling—have added pressures on educators, as attested to in federal and state measures of school accountability. School safety concerns have increased, witness the explosion of gun violence in schools, and the impacts of the Covid 19 pandemic on learning have made this accumulation of pressures almost unbearable. Through it all, educator salaries remain low on the whole and the educator profession continues to suffer from a lack of public respect commensurate with educators’ critical role in society.
The cumulative effects of stressors on educator health are increasingly alarming. A Learning Policy Institute national survey prior to the pandemic found that one in six teachers had left their jobs each year in recent years. A Rand Corporation survey prior to the 2020-21 school year found that one in four teachers said they were likely to leave. Among African American teachers the proportion was almost half leaving their jobs each year. Indeed, the definition of the audience for social and emotional learning, once reserved as a feature of learning focused on students, must be enlarged to include the health and wellness needs of teachers, as well, to avoid catastrophic consequences for the nation’s schools. Moreover, teacher education programs are largely unable to prepare new teachers in adequate numbers to fill the void. In many parts of the country teacher salaries have failed to keep up. A variety of old and new approaches are being considered, e.g., alternative certification, school district certification programs bypassing college teacher preparation altogether, and career-changer incentives, to refresh the educator pipeline.

Contributors to this issue of *Voices for Educational Equity* are invited to consider questions such as the following in preparing submissions.
1. How might educator wellness be identified and addressed as an important factor contributing to educator well being and school effectiveness?
2. What diagnostic methods, treatments, and supports show promise of alleviating stress and other conditions that adversely affect educator wellness?
3. Do programs exist that show promise of serving as best practices in supporting educator wellness? Are teacher education programs preparing candidates adequately for the rigors and challenges teachers are facing at the present time?
4. What steps are being taken in other sectors of society, such as in the corporate and nonprofit worlds, that might help improve educator wellness. What innovations internationally might also be helpful in the American educational setting?

**DRAFT — *Voices* Future Issue Call: “Global Education,” Volume 20, Number 1 (Proposed Submission Deadline, June 15, 2023)**

The increasing tensions and conflicts in our contemporary world—whether due to a rise in authoritarianism, global food shortages, mass migrations of peoples seeking safer and more prosperous lives, or the Russian invasion of Ukraine that threatens to destabilize a post World War II international order—collectively press schools to expand the social studies curriculum to improve student international awareness and cross-cultural understanding. In addition to these critical issues, social media worldwide bombards parents and children alike with international propaganda and disinformation often more harmful to global stability than helpful for gaining understanding and developing empathy for cultural differences internationally and the circumstances and needs of people around the globe.
If anything the school curriculum has reduced its emphasis on civics and social studies in favor of vocationalism and other subjects. Yet, it seems imperative that the school curriculum do its part in providing a solid educational grounding that both informs and counters the rash of disinformation and conspiracy theories adding to alarming divisions and disarray around the world. Clearly, emphasis also needs to be placed on pedagogies that enliven these fields for students, as well as efforts to communicate the purposes and content of global education to parents. As global threats such as climate change, nuclear proliferation, environmental devastation, and deprivations related to food insecurity and violence contributing to mass migrations of peoples illustrate, the very survival and sustainability of our planet is at stake.

1. Are model curricula and promising pedagogies being developed that are energizing social studies and increasing their appeal to students and parents?

2. How might international language programs optimally contribute to international understanding?

3. What role do youth international travel and international service projects play in contributing to global understanding?

4. How might teacher education programs better prepare teachers to play more effective roles in global education?

**DRAFT — Voices Future Issue Call: Volume 20, Number 2, “Literacy” (Proposed Submission Deadline, October 15, 2023)**

Perhaps no subject is a more fundamental educational building block than literacy. Learning to read is the *sine qua non* to other learning, whether in literature and social studies, or in science and mathematics. Yet, American student scores on reading achievement tests and other literacy measures show that the needle has either hardly moved or actually declined in recent decades. Major attention has been given over several decades to lagging scores of African American and Latinx students whose numbers are rising in the student population. Adult illiteracy continues to be a significant issue, as well, especially among recent immigrants, people of color, and in low income communities. Major attention, fairly successfully, has been given to bilingual education in recent years, an effort whose importance remains high in the wake of continuing levels of American immigration. The importance of efforts to improve literacy will not go away as a literate population is essential for the effective functioning of the increasingly complex economic and technological organization of American and global society.
1. What do recent studies show to be leading causes of illiteracy and how it is affecting student achievement and societal functioning? Are teacher education programs doing their part in preparing teachers for literacy education?

2. To what extent have advances in early childhood education contributed to improving literacy rates in recent years? What are examples of best practices in early childhood education related to literacy? What examples exist of outstanding adult literacy programs?

3. Is teaching and learning in disciplines other than language and literature contributing to the literacy problem? What pedagogical best practices is these areas are contributing to literacy education?