Introduction

Driven by the belief that concerns related to **teacher supply, quality, and diversity are interrelated and must be solved together,** we propose an educator development and partnership project that will serve four high-need school districts in Western New York. As concerns related to teacher shortages become even more acute, it is essential that we remain squarely focused on recruiting, preparing, retaining, and supporting the continuous development of the diverse, effective, and truly excellent teachers to which all students are entitled. Leveraging features of an existing and effective teacher residency program (UBTR), we propose expansion of professional learning opportunities focused on: 1) mentoring and induction; and 2) merging evidence-based instructional strategies with culturally responsive, transformational SEL. Together, these strands will positively impact student learning by preparing and developing residents, novice teachers, teacher-leaders, and school and district leaders who cultivate an inclusive, equitable classroom climate where students' social emotional and academic needs are met. Table 1 below highlights the ways in which our project aligns with the Absolute and Competitive Preference Priorities of this SEED grant.

Table 1. Project Alignment with Absolute and Competitive Preference Priorities

Absolute Priority 1: Supporting Effective Teachers, which requires Moderate Evidence.	This project meets Absolute Priority 1 through the expansion and extension of an established and effective teacher residency program that leads to NYS teacher certification and prepares, supports, and retains teachers for high-need partner LEAs. The UB Teacher Residency program utilizes WWC Practice Guides for Teaching Secondary Students to Write Effectively and Teaching Academic Content and Literacy to English Learners in Elementary and Middle School, and the New Teacher Center (NTC) Induction Model. Professional enhancement activities for emerging and established school leaders include the evidence-based NTC Induction Model institutes for teacher-leaders who serve as mentor teachers in our residency program. A tiered, multifaceted series of

	evidence-based professional learning activities are offered to emerging and established teacher-leaders in four partner districts, including our current residency partner district.
Competitive Preference Priority 1: Promoting educator diversity in classrooms across the Nation. (5 points)	The UB Teacher Residency program has been successful in recruiting, preparing, and supporting teachers from diverse backgrounds who work in high-need partner districts. To date, we have prepared three cohorts where more than 60% of residents come from underrepresented, minoritized backgrounds. Through SEED, we will expand professional learning activities to sustain and retain teachers from diverse backgrounds and promote educator diversity in classrooms.
Competitive Preference Priority 2: Preparing teachers to create inclusive, supportive, equitable, unbiased, and identity-safe learning environments for their students.	Through our program's co-teaching residency, modularized coursework, collective action research teams for transformation, and culturally relevant transformative SEL, SEED will prepare teachers to create inclusive, supportive classrooms on day one. Our tiered, multifaceted series of evidence-based professional learning activities focused specifically on culturally relevant transformative SEL will broaden our reach to non-residency partner districts, equipping teacher-leaders with additional evidence-based strategies for fostering inclusive, equitable learning environments for students.
Competitive Preference Priority 3: Provides explicit support for developing students' social and emotional skills, such as their ability to collaborate with peers and persist through challenging tasks.	

A. Quality of Project Design

A1. An Exceptional Approach to the Priority Areas

Context: Conceptual Framework, Mission, & Impact The UB Teacher Residency (UBTR) program launched in 2018 with the mission of increasing educational opportunities for all students by preparing and supporting racially, ethnically, economically, and linguistically diverse professionals through a sustained, immersive co-teaching residency that emphasizes collaborative professionalism (Hargreaves & O'Connor, 2018). With the vision of ensuring more equitable school experiences, UBTR aims to diversify the local teaching community and prepare,

support, and retain learner-ready teachers who foster positive academic and social-emotional change in classrooms, schools, and communities.

Our existing residency program will have prepared 70 teachers by September 2023. As of this writing, the program is estimated to have impacted more than 5,000 students in the Buffalo Public Schools, our residency partner district. UBTR residents are placed in cohorts that facilitate collaboration among peers and colleagues, as well as expert Mentor Teachers[1], Clinical Experience Coaches (CECs), Career Induction Specialists (CISs), university faculty, and school administrators. Systemic collaborative professional development is provided through the use of a co-teaching model in residency and the innovative UBTR Consortium (UBTRC), which supports preservice and practicing teachers at all levels of development by creating a culture of continuous improvement (Bacharach, Heck, & Dahlberg, 2012).

This project extends the work of the UBTRC to engage greater numbers of teachers in professional learning activities designed to foster a culture of collaborative professionalism (Hargreaves & O'Connor, 2018) to support the exploration and enactment of: 1) effective instructional mentoring for pre-service and novice teachers; and 2) evidence-based instructional strategies that are merged with culturally responsive, transformative SEL (Jagers, Rivas-Drake & Williams, 2019). Proven to be a "deeper and more rigorous form of professional collaboration" (p. 1) research demonstrates that collaborative professionalism "boosts student achievement, increases teacher retention, and enhances the implementation of innovation and change" (p. 1). The UBTRC will expand and extend its offerings through a professional learning continuum that supports pre-service teachers, emerging, developing, and established teacher-leaders, school leaders, and university faculty.

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[1] Mentor teachers will meet the criteria to be expert teachers who, according to the National Center for Teacher Residencyare defined as a teacher who performs in the top 30% of her/his school or district.

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Objectives/Outcomes

Objective 1: Recruit, prepare, support, and retain demographically diverse cohorts of teachers for high-need schools in high-need districts through a collaboratively developed community-focused residency program anchored in evidence-based, equity-centered practices. (AP1, CPP1)

Aligned with **Absolute Priority 1-**Supporting Effective Teachers and **Competitive Preference Priority 1-**Promoting Educator Diversity in the Classroom, the UB Teacher Residency (UBTR) Program proposes to extend and expand an innovative approach to teacher preparation that addresses the weaknesses and leverages the strengths of both traditional and alternative approaches to teacher education by recruiting, preparing, and retaining effective and diverse teachers for WNY high-need schools. The highly successful UBTR program has not only improved recruitment and student academic achievement, but has also increased retention. To date, the diversity of our cohorts (33% Black/African American; 14% Hispanic/Latinx; 14% Multiracial/Asian; 39% White; 32% male; 53% female) has far surpassed district teacher racial demographics. In four years, we have established a robust residency consortium that includes ongoing professional learning opportunities, networked support, and social events. We have worked in deep collaboration with a partner district to address staffing challenges in high-need content areas and ameliorate shortages of substitute teachers. Notably, the UB Teacher Residency Program's BPS partnership was one of just eight programs featured by the US Department of Education in their latest Fact Sheet on Partnerships to Address the Teacher Shortage.

Research demonstrates that funded, supportive pathways into the profession increase the number of teachers of color and teachers entering high-need content areas (Carver-Thomas, 2018). Through strategic and targeted recruitment efforts developed with outreach efforts led by engaged community members, we have identified community-based pipelines into the profession, including connections to faith communities, social and human service agencies, and university undergraduate programs serving underrepresented minoritized students. As a complement to our

recruitment efforts, we have eliminated application barriers, such as the GRE and application fees, which research indicates disproportionately screen-out prospective teachers of color (Madkins, 2011; Nettles, Scatton, Steinberg, & Tyler, 2011). Selection involves a multidimensional application process, collaboratively enacted by the program team and representatives from partner districts.

Research demonstrates that cohort models utilized in residency can promote positive relationships among residents and reduce the isolation that many early-career teachers, especially minoritized teachers working in predominantly white schools and districts, may experience (Guha, Hyler, & Darling-Hammond, 2016). Through cohort-based coursework, collaborative seminars, and clustering resident-mentor pairs in a smaller number of partner schools, we support the development of relationships that ultimately enable ongoing collaboration, communication, and mentoring. To ensure clinically-rich, meaningful pre-service preparation, residents complete program coursework through modules that relate theory to practice through application of concepts during the residency year (Janssen, Grossman, Westbroek, 2015; Lave & Wenger, 1991). This approach ensures that, through 16 months of guided apprenticeship, participants will complete requirements for certification, earn a master's degree through UB's state-approved program, and have experiences that integrate pedagogy, classroom practice, and mentoring through rigorous graduate-level coursework. During the first summer, residents participate in a five-day Teacher Residency Summer Institute (TRSI), where they meet their mentor teacher. At the start of the school year, residents co-teach alongside their MT while taking coursework. Through a gradual release calendar that utilizes high-leverage practices (TeachingWorks, 2021) and connects classroom practice with modularized course content, residents' experiences are scaffolded throughout the year. After the school year, residents complete an additional summer semester to meet the requirements for the EdM degree.

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Evidence suggests that to support and retain equity-oriented teachers, especially those from underrepresented minoritized backgrounds, programs must be anchored in culturally responsive-sustaining (CR-S) pedagogies, enact anti-racist pedagogies, and model inclusive practices (Chambers, 2012; Kumashiro, 2000). Central to UBTR, these principles are woven through coursework and anchor each session of our Teacher Residency Summer Institute. (Details on the TRSI and further infusion of CR-S pedagogies and practices will be outlined in subsequent sections.)

Ongoing programmatic support and advising that anticipates the needs of new teachers, especially those who are also underrepresented minoritized and/or first-gen, is important in ensuring that teachers are not only recruited into UBTR, but that they persist and remain connected through all phases of preparation and induction. Research reveals the critical impact of ongoing mentoring and support (both formal and informal) and targeted support in navigating institutional processes and certification requirements (Carver-Thomas, 2017). This includes building networks of peer support (established through our cohort model and affinity groups), preparation and support for state licensure exams, and preparation for and assistance with district hiring processes. See Appendix H (Table 1) for a description of residency program features.

An additional innovation of UBTR involves the implementation of Career Induction Specialists (CISs), who meet regularly with residents during their first two years of teaching. By focusing on early career teacher effectiveness and self-efficacy, and fostering a culture of collaborative professionalism, CISs contribute to improved student performance and increased teacher retention (Darling-Hammond, Hyler, & Gardner, 2017). Moreover, the culture of collaborative professionalism fostered by the UBTRC facilitates participation by MTs, CISs, and teachers in partner districts, cultivating skills to enhance student achievement across the curriculum with a particular focus on SEL, well-being, and aligned supports.

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Objective 2: Recruit, develop, and support high-quality mentor teachers and induction specialists in residency partner schools by implementing evidence-based coaching and induction support models. (AP1, CPP2)

Key to the success of the UBTR are the Mentor Teachers whom residents teach alongside for a full academic year. In alignment with standards set by the National Center for Teacher Residency (2017), our MTs are screened for performance, with all receiving ratings of effective or highly effective on New York State's Annual Professional Performance Review. In addition to demonstrating subject competency, MTs must also exhibit the requisite dispositional skills that will lead to productive mentorship of the resident. Criteria are organized around five principles: 1) effective, high-quality instruction; 2) reflective practice and commitment to professional growth; 3) collegial and communicative, with the ability and desire to make teaching work explicit; and 4) equity orientations that enable productive, inclusive learning environments for residents and students. The selection process begins with an application that includes opportunities to respond to scenarios intended to gauge preparation for working with novice teachers and underrepresented, minoritized teacher candidates. Following the application and district or school-level endorsement aligned with teacher performance, we conduct classroom visits and debrief sessions. Mentors are compensated for their participation in the Teacher Residency Summer Institute and receive a stipend for the year.

Further strengthening residents' development of expertise in instructional effectiveness in high-needs contexts, residency-affiliated MTs and CISs (described in Objective 1) will participate in a series of professional learning opportunities including: **1) professional development adapted from the St. Cloud Academy for Co-Teaching and Collaboration; 2) training in WWC evidence-based New Teacher Center Induction model; and 3) the UB Teacher Residency Consortium (UBTRC)**. Co-teaching and NTC professional development will be launched in the summer prior to residency as part of the annual Teacher Residency Summer Institute with

additional follow-up offerings throughout the year. In addition, MTs, as well as school leaders in schools where residents are placed, will be involved in the UB Teacher Residency Consortium, which will facilitate a collaborative approach to continuous improvement in teaching effectiveness and contribute to the alignment of program coursework with clinical practice. The UBTRC fosters a culture of collaborative professionalism by providing access to resources to create a virtual and in-person learning community that will include residents, program graduates, MTs, CISs, administrators, and university faculty. Through a systemic approach, the UBTRC will provide targeted, tailored professional development to partnership participants as they seek to continually improve their capacity to advance student learning (Guha, Hyler, & Darling-Hammond, 2016; National Center for Teacher Residencies, 2017).

Objective 3: Through a tiered and multi-faceted series of professional development activities, increase the capacity of residents, early-career teachers, mentor teachers, and teacher-leaders to merge evidence-based instructional strategies with culturally responsive, transformative social emotional learning supports that enable teachers to create effective and inclusive learning environments for students. (AP1, CPP1, CPP2)

Approach to PL Our approach to professional learning through residency is informed by principles of collaborative professionalism (Hargreaves & O'Connor, 2018) which provide the theoretical foundations of our sustained, recursive, practice-based approach to professional development driven by inquiry, initiative, dialogue, and common purpose. With the goal of implementing professional learning that leads to a culture of continuous improvement as measured by student well-being and academic performance, our program centers learner outcomes by offering a range of nested and networked opportunities to engage in professional learning that is multi-phased and embedded in classroom practice and recognizes the need for systemic solutions. In addition, professional development activities correspond with Sherff's (2018) tenets of effective professional learning: 1) tied to specific content; 2) incorporates active learning; 3) job-embedded; 4) collaborative; 5) provides models; 6) includes coaching; 7) sustained and continuous; 8) aligns

with school goals, standards and assessments, and other professional learning activities (Archibald, Coggshall, Croft, & Goe, 2011; Darling-Hammond, Hyler, & Gardner, 2017; Labone, & Long, 2016). Appendix H Table 2 provides an overview of all program participant roles and descriptions.

To ensure that the features associated with effective professional development are embedded in our residency program we draw upon the expertise of our clinical coaches (CECs), who have close ties to the university, and CISs, who provide induction support during the first two years of teaching, meeting regularly with program alumni, participating in systemic professional development, and facilitating professional learning communities focused on teacher effectiveness as related to student performance. CISs work in collaboration with district-provided early career mentors, spending several hours per month with residents to strengthen the clinical connections necessary to support a strong professional network. Coordinating efforts through the UBTR Consortium, CISs address the needs of residents through a customized approach to professional development that aligns with the tenets of collaborative professionalism.

MTs, CECs, and CISs will participate in the TRSI collaborative teacher training and in monthly learning community meetings. These meetings are designed to: (1) continue to strengthen the mentoring/coaching skills learned during the formal St. Cloud Academy and NTC trainings; (2) reinforce the use of formative assessment tools and mentor protocols through the ongoing examination of these artifacts of mentor/coaching practice; (3) provide a supportive environment to discuss the challenges they face in working with residents; and (4) identify additional training needs.

UB Teacher Residency Consortium During the preparation program and continuing after completion, participants will be placed in cohorts that facilitate collaboration among peers and colleagues, as well as expert Mentor Teachers, Clinical Experience Coaches, Career Induction Specialists, university faculty, school administrators. Systemic collaborative professional

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development will be provided through the innovative UBTR Consortium (UBTRC), which will support preservice and practicing teachers and administrators at all levels of development by creating a culture of continuous improvement (Bacharach, Heck., & Dahlberg, 2012) whereby educators collaborate around problems of practice and inquiry-based, data-driven investigations of real-time instruction that will center on student learning, engaging principles of collaborative professionalism (Hargreaves & O'Connor, 2018). To support collaborative professionalism through the consortium, UBTR provides residents with two years of post-graduate coaching by CISs, followed by two years of targeted participation in the consortium. To cultivate a culture of shared purpose and collaborative growth, all mentor teachers and administrators in host schools will also be invited to participate in the consortium. Consortium activities will include a virtual PLC, affinity groups, Instructional Practice - SEL modules (described below), Action Research Teams (designed to engage program participants in action research related to merging evidence-based instructional practice and social emotional learning), as well as pop-up professional learning sessions facilitated by consortium members with expertise in areas of need (as identified by UBTR Leadership fellows).

Teacher Leadership Pathways for Residency Alumni (UBTRC Fellows, Leadership Fellows, and Bilingual Fellows) As we recruit, prepare, and retain diverse, learner-ready teachers, we will need to extend the networked support offered through our existing residency program. Upon graduation and entry into the classroom, we will maintain the connections and collaborations forged through the cohort-based, co-teaching residency year through teacher leadership pathways for residency graduates that are organized around promoting equitable, inclusive learning environments in schools (Mangin and Stoelinga, 2008). Early-career teachers who are graduates of residency will be invited to become UBTR Fellows and Leadership Fellows who will take on leadership roles through the UBTR Consortium, generating session topics, organizing affinity

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groups, and co-facilitating sessions at our annual Teacher Residency Summer Institute. Leadership Fellows may also participate in co-facilitating course modules for residents. UBTR graduates who seek to earn a NYS bilingual extension to their existing certification will be eligible to apply to become a Bilingual Fellow. This teacher leadership pathway leverages the assets of our multilingual program graduates in the service of meeting a partner district-identified need for additional teachers who hold the NYS bilingual extension.

PL for Instructional Mentoring & Merging Evidence-based Instructional Strategies with Culturally Responsive, Transformative SEL A culture of collaborative professionalism is fostered when teachers share with and learn from one another: "Learning for all requires teachers who can and will work together in relationships of trust and solidarity, using methods that have impact" (Hargreaves & O'Connor, 2018, p. 16). Just as the residents, MTs, university personnel, and school leaders participate in a range of professional learning experiences, additional teacher leaders in our partnering districts will have opportunities to participate in professional development. Accordingly, professional development workshops and presentations will be offered to emerging teacher leaders (n = 50 per year). These teachers will be recruited from within our partner school districts and will have the opportunity to choose from professional learning focused on instructional mentoring and coaching, and/or the learning modules created to merge evidence-based instructional practice and culturally responsive, transformative SEL. In accordance with principles of collaborative professionalism, professional learning opportunities for school and district leaders will be embedded in shared goals and vision and aimed toward systemic transformation through continuous improvement.

This program will implement sustainable, district serving, professional learning opportunities that build teacher capacity to enact culturally responsive, positive social-emotional supports that impact student academic learning by merging SEL supports with evidence-based

instructional practices (WWC Instructional Practice Guides). This series engages teacher residents, MTs, and school leaders in regular, collaborative engagements aimed at (1) more deeply understanding students' SEL needs, (2) recognizing effective instructional and SEL strategies that promote positive engagement and learning in the classroom, (3) selecting and implementing culturally-responsive SEL strategies and integrating them meaningfully into instruction, and (4) collectively reflecting on and setting goals for classroom-specific SEL practices. Creation of welcoming, engaging classroom environments and integration of SEL strategies into instruction is most successful when teachers of all experience levels have opportunity to develop their own social and emotional competence (Jennings & Greenberg, 2009), to be coached while implementing new SEL strategies (Garbacz, Jeffrey-Pearsall & Truckenmiller, 2015; Hart & Nash, 2021) and to apply SEL strategies in culturally responsive ways (Cressey, 2019; Graves et al., 2017). Through initial professional learning at the Teacher Residency Summer Institute (TRSI) and monthly collaborative engagements (including online modules and team meetings with an SEL coach), teams of teachers will harness their evolving knowledge of SEL in practice and in context to have positive impacts on student academic learning.

This holistic, collaborative approach to professional learning integrates data-informed instruction, SEL, and the cultivation of effective leadership practices. A key aspect of this type of leadership involves targeted support for residents, novice and experienced teachers from underrepresented minoritized backgrounds in order to improve induction and retention.

Exceptional Approaches/Innovative Program Features The UB Teacher Residency Program draws on evidence-based strategies from a previously funded Department of Education Teacher Quality Partnership grant; evidence-based practices for the design of professional learning experiences (Archibald et al., 2011; Calvert, 2016; Darling-Hammond et al., 2017); one study that meets the What Works Clearinghouse (WWC) standards with reservations; and two WWC practice

guide recommendations. To develop our comprehensive induction program and teacher-leadership pathway, we draw evidence from research on the New Teacher Center (NTC) induction model (Young et al. 2017), a study with at least one finding that shows moderate evidence of effectiveness in similarly situated urban contexts. To anchor professional learning on the fusion of evidence-based instructional strategies and culturally responsive, transformative SEL (CASEL, 2022), we draw on WWC Practice Guide Recommendations for Teaching Secondary Students to Write Effectively (with a Focus on Recommendation 2- Integrate writing and reading to emphasize key writing features-a Tier 2-Moderate Evidence recommendation) for residents in secondary certification areas, as well as the Teaching Academic Content and Literacy to English Learners in Elementary and Middle School (with a focus on Integrating oral and written English language instruction into content-area teaching, a Tier 1 - Strong Evidence recommendation) for residents in seeking elementary certification.

Co-teaching Residency with Modularized Coursework and UBTRC The 16-month teacher preparation curriculum integrates educational research and theory with a year-long co-teaching (Bacharach, Heck, & Dahlberg, 2012) residency under the mentorship of an exemplary classroom teacher **before** Teaching Residents (TRs) become the independent teacher of record. Residents and MTs are trained in the evidence-based model developed by the St. Cloud Academy for Co-Teaching and Collaboration. In addition to the innovative co-teaching residency, UBTR's approach is exceptional in its development and implementation of coursework modules designed to align with the trajectory of the school year. The UBTR curriculum is not based solely on a traditional 3-credit hour course structure. Rather, an inclusive curriculum design team (i.e. UB faculty, clinical experience coaches, mentor teachers, induction specialists, emerging school leaders, and community-based partners) developed an innovative module approach for a portion of the course delivery. These modules are designed to meet every learning outcome on existing

syllabi but the delivery occurs "just in time" throughout the semester. Modules introduced in the first summer of study focus primarily on theoretical knowledge and skills, shift to developing practical knowledge and skills in the fall semester, and progress to growing proficiency in implementation during the spring semester. By transforming 3-credit courses into 1-credit modules, we leverage the experiences afforded by the year-long, immersive co-teaching clinical placements that are a key aspect of the residency. Throughout the UBTR curriculum, issues of teaching diverse and high needs students (Knapp, Addelman, Marder, McCollum, Needles, Padilla, Shields, & Zucker, 1995) are addressed, including culturally relevant and responsive teaching (Gay, 2000; Ladsen-Billings, 1994; Irvine, 1990), abolitionist pedagogies (Love, 2019), and issues of diversity in classroom management (Brown, 2003; Powell, McLaughlin, Savage & Zehm, 2001). Modularized coursework further enables connections between culturally responsive-sustaining pedagogies and classroom practices.

Modularized courses allow residents to link coursework with active interaction in their placements, thus leveraging the contextualized aspects of learning. Effective mediation of the experience is further fostered by opportunities for structured analysis of and reflection on practice, thus connecting course content to previous and ongoing contextual experiences and knowledge. Moreover, modularization has created opportunities to cultivate collaborative professionalism by including practicing teachers in the development and implementation of coursework. Residents are acculturated into collaborative professionalism as part of their preparation and induction, and MTs participate as well, thus improving their own practice and influencing their own school cultures. Combined, these informative, reflective, and interactive experiences should promote high degrees of teacher efficacy in our residents (Siwatu, 2007).

Use of the NTC Coaching Model The NTC coaching for equity model will be used with school-based MTs, UBTR clinical experience coaches (CECs), induction specialists (CISs), and teacher

leaders. The NTC coaching model is aligned closely with UBTR core values as it aims to alter current practices and perspectives to teach for social transformation and to promote equitable learning outcomes for students of all social groups (Lee, 2022). Further, NTC's coaching model is student-centered, integrating the academic and social-emotional needs of students. Foundational to the approach is creating optimal learning environments that (1) create emotionally, intellectually, and physically safe environments, (2) provide equitable, culturally responsive, and rigorous curriculum and instruction, and (3) meet the needs of diverse learners. Through an equity-lens, NTC's model provides participants the critical knowledge, skills, and tools to initiate and maintain effective coaching relationships with teachers that result in instructional growth.

The NTC coaching model has met the U.S. Department of Education's Work Works Clearinghouse (WWC) standard for Randomized Controlled Trial (RTC) studies and as such meets the moderate tier of evidence as defined by the federal government (Young, Schmidt, Wang, Cassidy, & Laguarda, 2017). Although the impacts on student outcomes were mixed, preliminary results support that the model has significant and positive impacts on student achievement in ELA and mathematics when beginning teachers are supported through NTC coaching. Through coaching that occurs during the residency year and into induction, UBTR-prepared novice teachers will be intentionally supported, guided, and challenged to teach in ways that address inequities of public education systems and turn educational experiences into opportunities for academic excellence, justice, and joy.

Integration of WWC Instructional Practice Guides with Positive Social-Emotional Learning Supports

Schools are a prime location for providing preventive and supportive services for children, particularly for minoritized students continuously oppressed by systemic policies and one-size-fits-all evasive practices (Heidelburg et al., 2022). Thus, there is a dire need to improve the

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educational experiences of minoritized students to ensure equitable outcomes for students in schools (Heidelburg et al., 2022; Swanson et al., 2021). As a result, various scholars suggest that educators, parents, and the general public center social-emotional learning (SEL) support within schools to improve the academic learning outcomes for historically underserved students (Donahue‑Keegan et al., 2019; Durlak et al., 2011).

Social-emotional prevention and intervention practices can benefit the positive development of all students and are effective at various educational levels (elementary, middle, and high school) and in urban, suburban, and rural school settings (Durlak et al., 2011). Research suggests that school-based, universal SEL demonstrated significant improvements in positive youth development, including social and emotional skills, attitudes, behavior, and academic performance (Durlak et al., 2011; Taylor et al., 2017).

Instructionally-embedded SEL that is anchored in evidence-based practices in writing and literacy aligns tightly with CASEL's (2022, n.p.) definition of transformative SEL, "a process whereby young people and adults build strong, respectful, and lasting, relationships that facilitate co-learning to critically examine root causes of inequity, and to develop collaborative solutions that lead to personal, community, and societal well-being. This form of SEL is aimed at redistributing power to more fully engage young people and adults in working toward just and equitable schools and communities. It emphasizes the development of identity, agency, belonging, curiosity, and collaborative problem-solving within the CASEL framework." The fusion of evidence-based practices in literacy and transformational SEL is an exceptional approach and innovative program feature that, through professional learning modules, coaching, and consortium-based SEL-focused action research, stands to make a significant impact on fostering inclusive and equitable classrooms and student learning outcomes overall.

Table 2. WWC Evidence & Alignment with UBTR SEED

New Teacher Center Model - In-Se1vice Mentoring for Residents	Conducted in high-pove1ty, high-URM schools that are demographically similar to UBTR partner schools, two quasi-experimental studies demonstrated the effectiveness of the NTC induction model on student achievement. Through partnering with VCU's Center for Teacher Leadership, UBTR clinical expe1ience coaches, mentor teachers, and induction specialists will be trained in the NTC mentoiing model.
Coursework-based Instrnctional Practices aligned with WWC 12ractice guides	WWC Practice Guides will be utilized in Instrnctional Strategies and Coursework modules that are taken by residents beginning in pre-residency summer sessions and continuing through fall and spring. WWC Practice Guide Recommendations for Teaching Secondaiy Students to W1ite Effectively and Teaching Academic Content and Literacy to English Language Leainers in Elementaiy and Middle School will also se1ve as the basis for PL activities on merging evidence-based Instrnctional Strategies with culturally responsive, transfo1mative SEL.

A2. A Closer Look at Quality, Intensity, and Duration of the PD Services Our professional learning activities, including conso1iiium-based action research, aim to improve educational conditions through a self-reflective, collaborative process linked directly to classroom practice. Proven to be an effective means of improving teaching (Zeichner, 2003), the action research model applies all of the elements of effective professional development identified by Sherff (2018) and listed in Objective 3. Moreover, action research as professional development is uniquely suited to cultivating and applying culturally responsive approaches associated with SEL because it allows paiiicipants to reflect on, then address, educational inequities (Parkhouse et al; 2021). Modulai·ized professional leaining oppo1iunities that merge evidence-based instrnctional strategies with culturally responsive, transfo1mative SEL address the inextricable links between students' social emotional growth and academic leaining with the goal of inclusive, equitable classroom environments that foster students' overall success (Dauncic et al., 2021).

Table 3. Quality, Intensity, and Duration of Professional Learning Activities

Paiiicipants	Intensity & Duration
Residency Innovation Classrooms in Residency Partner Schools	
Resident-Mentor Pairs	• **TRSI** - A week-long (35 hour) institute with sessions facilitated by program team, faculty, district and school leaders, program alum (including expeiienced mentors and leaders)

	• **Co-Teaching** - Two half-day sessions delivered at the TRSI and that utilize the St. Cloud Collaboration & Co-Teaching model
	• **Clinical Experience Coaching**-Monthly in-classroom observation and follow-up coaching session + one session monthly for residents to convene with clinical experience coaches for a two-hour-long session
	• **UB Teacher Residency Consortium -** Consortium-based virtual and in-person PLCs and action research projects
	• **Transformative SEL**
	    ○ Modules & Coaching (summer workshops + 5 modules with virtual and in-person coaching across the school year)
	    ○ Consortium-based PLCs and action research projects

Residents-Only	• **Instructional Methods and Strategies Modules** - Forty-five hours of class contact-hours for each course (methods & strategies) delivered across three semesters (summer, fall, and spring)
Mentors-Only	• **NTC Training -** Six days of NTC foundational institutes for mentors (Day 1-The Why and What of Coaching, Day 2-Effective Planning, Day 3-Initiating the Observation Process, Day 4-Completing the Observation Process, Day 5-Analyzing Evidence of Student Learning, Day 6-Analyzing Evidence of Student Learning)
School Leaders	• **UB Teacher Residency Consortium-** Participation in quarterly work sessions/interim findings presentations of action research teams; **Leadership PLC -** Monthly convening of school leaders-focus on supporting novice teachers and emerging teacher-leaders
Non-residency Partner Schools & Districts	
Emerging Teacher Leaders (Residency Alumni)	• **UB Teacher Residency Consortium-** Consortium-based virtual and in-person PLCs and action research projects • **Induction Support/Mentoring (2 years)** - First-year teachers participate in at least two structured monthly mentoring sessions with induction specialists; second-year teachers participate in at least one structured monthly mentoring session with induction specialists (with one un-structured as needed); completion of induction logs • **UBTRC Fellows (1 year)** - Commitment to monthly consortium PLC or action research meeting + co-facilitation of four UBTR consortium sessions • **UBTRC Alumni Leaders (1 year)** - Commitment to monthly consortium PLC or action research meetings + Consortium Leadership - Coordination of 8 consortium events/year; participation in resident recruitment & selection; co-facilitation of TRSI sessions and/or coursework modules • **UBTR Bilingual Fellows (1 year)** - Commitment to 12 credit hours of coursework to obtain a NYS bilingual extension to certification (LAI 592: Foundations of Bilingual Education: Theory, Policies, and Practices; LAI 682 Assessing Second Language Proficiency OR LAI 681 Understanding Teaching/Second Language Culture; LAI 582: Principles of Language Acquisition 1st and 2nd; LAI 588 Methods in Bilingual Education; LAI 587: Methods in ESL through Content Area)

Teacher-Leaders (from non-residency partner districts or schools, selected for leadership capacity)	● **NTC Training for Induction Specialists**- Six days of NTC foundational institutes (Day 1-The Why and What of Coaching, Day 2-Effective Planning, Day 3-Initiating the Observation Process, Day 4-Completing the Observation Process, Day 5-Analyzing Evidence of Student Learning, Day 6-Analyzing Evidence of Student Learning)
	 ● **Merging Transformative SEL & Instructional Practice PL for Non-Residency Partner School Teacher-Leaders**
	    ○ Modules & Coaching (summer workshops + 5 modules with virtual and in-person coaching across the school year)
	    ○ Optional participation in consortium-based PLCs and action research projects

District Leaders	● **Steering Committee -** Bi-monthly, 1.5 hour convenings of school and district leaders, UBTR program team, and UB faculty

Professional Learning to Support Instructional Mentoring & Teacher-Leadership UBTR will partner with Virginia Commonwealth University's (VCU) Center for Teacher Leadership to provide MTs, CECs, CISs, and teacher leaders professional development in the NTC coaching for equity model. This training includes six full days of NTC foundational institutes, introduced during the TRSI and continuing in two subsequent professional development sessions in October and January include: Day 1: The Why and What of Coaching, Day 2: Effective Planning, Day 3: Initiating the Observation Process, Day 4: Completing the Observation Process, Day 5:Analyzing Evidence of Student Learning, Day 6: Analyzing Evidence of Student Learning. Professional development will be . Time between sessions allows participants to implement strategies, reflect and revise coaching strategies, reflect on the data with VCU professional development leaders, then co-generate solutions that will impact classroom learning.

During the residency year, UBTR residents are supported by NTC-trained MTs and CECs. Although the resident and MT have daily contact through co-teaching; at least one hour per week will be dedicated to the mentor modeling specific strategies and providing support in effective planning, classroom management, assessment, and other skills identified for support. UB CECs conduct at least one formal observation per month to lend an additional layer of coaching to the resident/mentor pair. When residents transition to their first full-time position, they are supported

by a CIS who provides instructional and moral support and collects data on their practice to help monitor and facilitate their professional learning. The UBTR residency director, assistant director, and professional development coordinators work collaboratively to oversee fidelity in the field and address concerns that might arise at the school site.

Professional development for the teacher leaders will include the NTC coaching professional learning session, UBTRC events, as well as a series of workshops and presentations focused on instructional mentoring and the effective integration of instructional practices and transformative SEL. Two professional learning coordinators will conduct one to two observations of each teacher leader throughout the year. Observations will require submission of a learning plan, observation of the lesson implementation, follow-up with the coach, and generation of next steps.

Professional development for emerging teacher leaders (residency alumni) include opportunities to serve as UBTRC Fellows, UBTRS Leadership Fellows, or UBTRC Bilingual Fellows with opportunities outlined in Table 3 above. These teacher-leadership pathways position residency program graduates as agents in their own professional learning trajectories, thereby supporting increased self-efficacy, effectiveness, and retention (Angelle, 2010; Hargreaves Fink, 2006).

Professional Development on Merging Evidence-Based Instructional Strategies with SEL
While school wide initiatives, general teaching practices and standalone SEL lessons support positive student outcomes (Durlak et al., 2011), research shows SEL integrated into academic instruction and tailored to age level (Dusenbury et al., 2015) is a key pathway for leveraging the interrelatedness of social, emotional and cognitive dimensions of learning (Cross Francis et al., 2019). Merging instructional strategies with SEL, this project will integrate recommendations from two WWC Practice Guides: the WWC Practice Guide Recommendations for Teaching Secondary

Students to Write Effectively (with a Focus on Recommendation 2- Integrate writing and reading to emphasize key writing features-a Tier 2-Moderate Evidence recommendation) for residents in secondary certification areas; and the Teaching Academic Content and Literacy to English Learners in Elementary and Middle School (with a focus on Integrating oral and written English language instruction into content-area teaching) for residents in seeking elementary certification. Instructional strategies in the recommendations and their connections to SEL will be built into the TRSI, wherein MTs will receive opportunities to engage in professional learning on these topics.

To ensure ongoing engagement with WWC Practice Guides, recommendations and SEL connections will be infused into course modules that TRs take in summer, fall, and spring semesters. TRs in secondary programs will take LAI 514: Adolescent Writing Across the Curriculum. Course objectives and assessments align with WWC Practice Guide recommendations that teachers 1) Explicitly teach appropriate writing strategies using a Model-Practice-Reflect instructional cycle; 2) Integrate writing and reading to emphasize key writing features; and 3) Use assessments of student writing to inform instruction and feedback. WWC recommendations for TRs in the early childhood/childhood program will be infused in the modules of LAI 550 Literacy Acquisition and Instruction, Pre-K to Primary. This course, taught by literacy specialists, will explicitly address each recommendation, that educators: 1) Teach a set of academic vocabulary words intensively across several days using a variety of instructional activities; 2) Integrate oral and written English language instruction into content-area teaching; 3) Provide regular, structured opportunities to develop written language skills; and 4) Provide small-group instructional intervention to students struggling in areas of literacy and English language development. Infusion of WWC recommendations into these modules will be supported through collaboration with faculty instructors and MTs to draw on scholarship associated with the WWC

Guides, create assessments that align with the recommendations, and ensure that assignments are applicable to residents' clinical placements.

SEL Professional Development and Learning: Educators' social and emotional skills are vital to students' learning (Jones et al., 2013). Their social-emotional competence shapes the nature of student-teacher relationships, which in turn influences classroom behavior (Jones et al., 2013; Jennings & Greenberg, 2009). For example, Cross Francis et al. (2019) found that teachers with strong social-emotional competence tended to successfully organize their classrooms to meet their students' social-emotional and academic needs, developed solid teacher-student relationships, and cultivated a positive classroom climate. In addition, research suggests that social-emotional competence is a significant predictor of academic achievement (Ashdown & Bernard, 2011; Swanson et al., 2021). Given that social-emotional growth and academic learning are inextricably connected, neglecting or favoring one over the other would be counterproductive for students' success in schools (Daunic et al., 2021).

Despite the various benefits of integrating SEL into instructional practices, robust SEL training is often not centered in most teacher education programs (Cross et al., 2019), nor is integration of culturally responsive classroom practices (Donahue-Keegan et al., 2019). Therefore, during the TRSI, two half-day trainings will be provided to residents, building and district leaders, and mentor teachers. Training one will focus on SEL and the relation of trauma-informed and culturally responsive SEL practices to promote positive student development (Graves et al., 2017). Training two will include content on infusing general evidence-based SEL intervention practices to various instructional areas (i.e., reading and math) (Daunic et al., 2013; 2021). Following the TRSI, monthly online modules will focus on implementation of prevention strategies aimed at supporting culturally responsive classroom management. Equipping teachers with professional development to support their SEL competence influences their ability to organize the learning

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context and enact SEL strategies (Ashdown & Bernard, 2011). When teachers lack the resources to effectively manage the social and emotional challenges within the particular context of their classroom and school setting, children show lower levels of on-task behavior and performance (Ashdown & Bernard, 2011). The complete timeline and format is provided in Appendix H Table 3.

In-service and pre-service teacher training has historically been a primary mechanism for building teacher skills and competencies (Jennings & Greenberg, 2009), however, teachers typically receive little training in integrating SEL into their classrooms during preparation programs. Furthermore, even when SEL is part of teacher preparation, simply providing teachers with didactic instruction and training on strategies alone does not lead to the use of those strategies or robust student outcomes (Garbacz et al., 2015). Research suggests that continued direct support to teachers can help maintain intervention use after an initial training (Garbacz et al., 2015). As a result, monthly coaching from qualified individuals will be provided to residents to support them in applying specific strategies learned during the TRSI into their practice. A coach's role is to support teachers in strengthening their practice to improve and promote positive student outcomes. Intentional and purposeful coaching that emphasizes teacher capacity and empowerment impacts teachers' practice to improve equitable outcomes for students (Hart & Nash, 2021). Coaching is essential to building teacher skills and facilitating the effective implementation of evidence-based interventions and supports to promote equitable student outcomes (Garbacz et al., 2015; Hart & Nash, 2021; Pas et al., 2016). Furthermore, research suggests that teachers who received coaching engaged in more proactive classroom behavior management, had higher student cooperation, and fewer office discipline referrals for Black students (Bradshaw et al., 2018).

To support teachers in implementing SEL strategies within the classroom, in ways that promote equity for historically underserved students, coaches will use the Classroom Check-Up

(CCU; Reinke et al., 2008) model. The CCU is a class-wide consultation model that addresses classroom-level support to promote culturally responsive classroom management strategies to promote positive student outcomes (Pas et al., 2016; Reinke et al., 2008). The CCU's specific motivational enhancement strategies include personalized feedback to teachers on classroom behaviors, a menu of interventions, and support for self-efficacy by identifying teachers' existing strengths and success. Residents will work with a trained university SEL coach to support them in integrating SEL into their classroom through a series of sessions that are data driven and solution focused. First, coaches will work with teachers to identify a specific instructional period where social-emotional support is most needed. Next, ongoing coaching to support residents in implementing evidence-based social-emotional intervention strategies into their instructional practices to promote culturally responsive classroom management will be provided using the CCU model (see Appendix H-Table 4). Coaching will be used to: 1) Support teaching residents and mentor teachers in identifying and implementing specific SEL prevention or intervention strategies into their instruction; 2) Assist residents and mentors in drawing connections between SEL and positive student outcomes; 3) Bridge research and training to practice by providing active learning strategies and opportunities for teachers to apply information learned into their practice with support from trained individuals; 4) Establish collaborative support and sustain teacher development.

Culturally Responsive, Positive Social-Emotional Practices: Coaching to support the implementation of culturally responsive, transformational SEL practices is critical to ensuring more equitable access to educational resources and opportunities for marginalized students. In addition to integrating SEL and academic instruction, doing so in culturally-responsive ways is central to achieving a truly transformational SEL pedagogy (Jagers, Rivas-Drake & Williams,

2019). To this end, TSRI trainings, modularized university coursework and coaching is all designed with cultural responsiveness as the foundation.

A3. The Extent to Which Project Design is Appropriate and Will Successfully Address Needs

The choice to focus on Amherst Central School District, Buffalo Public Schools, Kenmore Tonawanda Union-Free School District, and Sweethome Central School district is intentional. All four districts are located in Western New York (WNY) within a 16-mile radius of UB North Campus. Leaders of these schools have decided that recrnitment, preparation, and retention of demographically diverse candidates is a priority in addressing issues of systemic racism often driven by deficit mindsets related to race and class. These four disti·icts are cmTently experiencing substitute and certified teacher shortages, with projections that needs will become more acute over the next five years (Smith, 2019). Retirements and tmnover have increased substantially in the past two years, with WNY districts offering pay and other incentives to atti·act substitute and ce1tified teachers (O'Brien, 2022). Additionally, many teachers in these pa1tner districts cmTently hold initial or Emergency COVID licenses (i.e., a tempora1y license to teach until exams are passed) due to turnover during the pandemic. Below we outline the demographic infonnation for 13 high-need schools within our four paitnering disti·icts.

Table 4. Demographic Information for High-Need Schools within High-Need School Districts (residencv oartner schools are in bold)

School	District	% Racial/ Ethnic Diversity	%SWD	%ELLs	%Free& Reduced Lunch
Winde1mere Boulevai·d Elementa1y	Amherst	49%	14%	15%	49%
Amherst Middle School	Amherst	34%	12%	4%	38%
Lorraine Academy	**Buffalo**	**58%**	**29%**	5%	**77%**
BEST	**Buffalo**	**89%**	**18%**	**42%**	**93%**

Hutchinson Technical High School	Buffalo	78%	10%	3%	69%
Lafayette High School	**Buffalo**	**91%**	**13%**	**96%**	**95%**
South Park High School	**Buffalo**	**65%**	**25%**	**7%**	**80%**
Ben Franklin Elementary	Ken-Ton	40%	22%	8%	61%
Holmes Elementary	Ken-Ton	47%	32%	8%	82%
Kenmore West High School	Ken-Ton	26%	16%	2%	46%
Heritage Heights Elementary	Sweethome	42%	6%	12%	54%
Sweet Home Middle	Sweethome	39%	12%	6%	53%
Sweet Home High	Sweethome	39%	11%	4%	52%

The extent to which the project design <u>is appropriate to</u> the needs of the target population

Both at the national and New York State levels there is a well-established need for improvements in teacher diversity, quality, and retention. By expanding our co-teaching residency program to these schools and anchoring professional learning in culturally responsive-sustaining practices that support social-emotional learning, we expect that mentor-resident pairs will be well-positioned to meet the varied needs of students within these high-need schools. Developing a culture of collaborative professionalism through the collective action research teams, fostering relationships among residents, mentors, school leaders, and other initiatives organized by the UBTRC and TRSI will enhance morale within the school community, improving the sense of belonging that is essential for supporting the social and emotional development of learners, and the partnerships fostered through UBTR will enhance connections among school personnel and community members. Finally, increasing the racial and ethnic diversity of teachers through UBTR, coupled with professional development offered through UBTR and TRSI, will strengthen educators' cultural competence and their ability to develop and deliver culturally responsive

instructional experiences (Sleeter, 2011; Ronfeldt, Loeb, & Wyckoff, 2013; Ladson-Billings, 2009).

The extent to which project design <u>will successfully address</u> needs of target population

UBTR has a demonstrated record of success for residents, MTs, and school leaders, which supports the conclusion that similar impacts/successes can and will continue. In the first three years of the program, 60% of program completers were residents of color. Current program evaluation results indicate that 75% of residents strongly agreed that they feel prepared to implement and enact culturally responsive-sustaining practices in their classrooms. One resident cited feeling "Very confident & prepared. I've tried very hard to make the classroom community based." Another posited, "I feel very well prepared for this. I always consider the information presented to my students from a larger worldview perspective." When asked to identify specific strategies learned through coursework, residency and consortium experiences, residents indicated " trying to infuse different perspectives into curricula, especially those that are often left out." And, "Social-emotional learning, using student relationships in the classroom to connect to students' learning, teaching [content area] through culture, learning about students' background information/interests." Successes from equity-centered collaboration programming include 80% report a "support network"/positive community across aspects of the program, 87 % agree that stakeholders collectively maximize student learning; and 62% report positive opportunities for collaboration aimed at constructing change together. Further, 75% of those who participated in UBTRC reported that as a result of the networks of support, "I am prepared to promote social justice in the education system."

A4. Potential for Project Activities or Benefits to Extend Beyond the Grant Since inception, UBTR has worked to maximize the various resources dedicated to its development while maintaining a vision for capacity-building and project sustainability beyond grant funding.

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The project objectives outlined in this proposal reflect extensions of work that will build upon the foundation we have laid with our existing residency program. Enhanced capacity to support and mentor diverse, learner-ready teachers who are able to build inclusive, equitable spaces that impact academic outcomes is essential as our region and nation face a teacher shortage that will be best addressed through university-community-district partnerships that ensure teacher diversity, quality, and retention. Below we summarize the potential for project activities and impacts to build the human, material, structural, and organizational capacity of various project stakeholders.

Table 5. Sustainability and Capacity-Building

Human Capacity: UBTR SEED will increase the human capacity of forty residents in our partner district. Nearly three hundred established and emerging teacher leaders' will be supported by our tiered, professional learning activities including NTC training, collaboration & co-teaching training, induction support, and engagement in consortium activities, SEL modules and coaching. District and school leader capacity for supporting novice teachers, particularly novice teachers of color, will be improved through PLC participation. University faculty capacity to engage residents in coursework that leverages classroom practice will be further enhanced through the expansion of our residency model.	**Material Capacity:** Partner districts, including our residency partner districts, are increasing their material contributions by either increasing their financial contributions to the project, providing in-kind donations of time or space, and other supports required for expanding professional learning offerings. Additionally, we have recently been awarded a year-long extension grant from a local foundation, and we seek to grow both the local foundation, state aid through residency apprenticeships, and partnership support. The ability to enhance and expand our offerings will enable broader reach, and potentially attract a more wide-spread understanding of the impact of the residency model and teacher leadership pathways. We expect this will spur continued material investment in the model and our educator development approach.
Structural Capacity: The existing BPS-UBTR steering committee has been influential in advancing changes in either university or district policies related to preparation, hiring, on-boarding, and induction support in efforts to recruit, prepare and retain learner-ready teachers from diverse backgrounds. Funding provided through SEED would advance this work with additional partner districts and would positively impact the induction and retention of novice teachers while providing teacher-leadership pathways that sustain veteran teachers.	**Organizational Capacity:** SEED funding will enable us to expand upon our existing residency program and broaden our reach to include professional learning activities for residency program graduates, induction specialists, non-residency partner school mentor teachers, and school and district leaders. Through the UBTR Consortium and the suite of offerings, we envision that we will build greater organizational capacity for teacher leadership, effective professional learning, and innovative teacher preparation models that are community-centered and district-serving. Through expansion to additional partner districts, we will increase collaboration across districts, facilitating a community of practice that highlights effective practices in varied school contexts.

<center>**B. Significance**</center>

B1. Importance/Magnitude of Outcomes Likely to be Attained

This project seeks to impact the diversity and quality of teachers as a means to impact student learning. We will make these impacts through the extension and expansion of our existing and effective teacher residency program and through the development and implementation of a tiered, multi-faceted series of professional learning activities designed to increase capacity to merge evidence-based instructional strategies with culturally responsive, transformative SEL supports.

The residency component of this project is informed by the belief that concerns related to teacher supply, quality, and diversity are interrelated and are best solved together through funded, community-based residency programs. Evidence is clear about the impact that teacher diversity has on student-level outcomes (Dee, 2005; Gershenson et al., 2016; Gershenson et al., 2018). Year-long co-teaching benefits the resident and the K-12 students in the residency classroom (due to a reduced teacher-student ratio). Our program's use of modular, just-in-time coursework enables connections between theory, research, and practice. Expanded professional learning for mentor teachers and induction specialists (through implementation of the NTC model) will increase the effectiveness of instructional mentoring, contributing to resident retention and learning and leading to improvements in student-level outcomes (Young, Schmidt, Wang, Cassidy, Laguarda, 2017). Our consortium provides continuous, networked support to residency program graduates, fostering a culture of collaborative professionalism and thereby providing a forum for continuous learning that will impact student learning as well as retention. Together, and consistent with existing literature these pieces contribute to improvements in teacher quality, diversity, and retention (Guha, Hyler, & Darling-Hammond, 2016; National Center for Teacher Residencies, 2017).

Professional learning activities will impact both teaching practice and student achievement. Integrated into every aspect of this project (residency innovation classrooms, capacity-building for instructional mentoring, and merging of evidence-based instructional strategies with culturally responsive, transformative SEL) are multi-phased professional learning activities that recognize embedded efforts as part of a system. The professional learning model contributes to a culture of collaborative professionalism based on transformation through inquiry. Fostering a culture of

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collaborative professionalism works to reduce the isolation that many teachers experience, and which can be a contributing factor to attrition (Hargreaves & O'Connor, 2018).

Perhaps most significantly, this project seeks to challenge the notion that evidence-based instructional strategies for academic learning are separate from strategies for fostering inclusive, equitable learning environments that engage students in culturally responsive, transformative social-emotional learning. Fusing evidence-based strategies (taken from the WWC Instructional Practice Guides) with SEL has the potential to shift social justice orientations and transform classroom learning environments in ways that foster a sense of belonging and increase access to instructional content (Dauncic et al., 2013; Dauncic et al, 2021). Professional learning in this area stands to greatly impact student outcomes given existing literature that suggests that many educators do not receive enough pre-service experience in identifying, planning, and integrating evidence-based social-emotional learning practices into instruction (Cross Francis et al., 2019; Donahue-Keegan et al., 2019). As a result, many teachers leave their teacher education program ill-prepared to enact social-emotional learning (Cross Francis et al., 2019; Garbacz et al., 2015), and as a result, many teachers are left unprepared to deal with the realities of the classroom, which ultimately minimizes students' opportunities for success (Cross Francis et al., 2019; Donahue-Keegan et al., 2019). Furthermore, Jennings and Greenberg (2019) noted that when teachers lack the resources to manage the social and emotional challenges within the classroom effectively, teachers often experience a "burnout cascade" in which teachers become emotionally exhausted with the challenge of managing students' social-emotional needs.

Scope of Impact

This project will deliver effective professional learning experiences for **110 residency-affiliated educators** that reach approximately **2500 K-12 students** in residency innovation classrooms. Additionally, we will engage more than **275 emerging and developing teacher-leaders** in tiered, multi-faceted professional learning activities that will impact approximately **10,000 students** across our **four partner districts**.

B2. Contributions to the Development and Advancement of Theory, Knowledge, and Practice

The innovative nature of our university-based, community-focused, and district-serving residency program means that there are relatively few models for developing and expanding such pathways into the profession. The UB Teacher Residency Program, therefore, stands to serve as

a model for traditional university-based programs seeking to transform their programs in ways that re-center teacher preparation in P-12 schools and classrooms and that transform coursework to leverage year-long clinical placements. Research on UBTR's innovative program features stand to contribute to the advancement of theory, knowledge, and practice related to 1) modularization of coursework that leverages residency classroom experiences; 2) use of cohort and networked support models in improving teacher retention, particularly for teachers of color working in mid-sized urban districts; and 3) the impact of co-teaching residencies on P-12 student outcomes (both during the residency year and once residency alumni are working as teachers of record). In addition to contributing to the development and advancement of theory, knowledge, and practice around the model itself, we expect to contribute to the knowledge, theory, and practice around teacher-leadership pathways, instructional mentoring models for novice teachers from diverse backgrounds, strategies and effectiveness of community-engaged teacher education, and the ways in which collaborative professionalism can reduce novice and veteran teachers' isolation in ways that ultimately impact student-level outcomes. Finally, we expect that our emphasis on merging evidence-based instructional practices and culturally responsive, transformative SEL will stand as a model for teachers, schools, and districts who seek to foster equitable, inclusive learning environments for all students.

B3. Project Dissemination: In a relatively short time period, UBTR has established itself as an innovative, university-based, community-focused, and district-serving residency program. In addition to being selected as one of just eight programs featured by the US Department of Education (2022) in their latest Fact Sheet on Partnerships to Address the Teacher Shortage, the project leaders published a book (Gorlewski et al., 2022) intended to serve as a guide to others seeking to establish residency programs. We have also disseminated findings related to our existing residency program and its first two cohorts at the annual meetings of the American Educational Research Association (AERA) and American Educational Studies Association (AESA). Through both connected research projects and program evaluation, the UBTR initiative has generated a wealth of data that will continue to produce publications in professional journals and presentations at educational conferences.

Additionally, UBTR has been an active contributor to the Pathways Alliance, NYS P-20 Collaborative, and Prepared to Teach--an array of groups seeking to advance sustainable residency models across the country. Moreover, UBTR project leaders participate in discussions at the state

and national level, using project findings to suppo1i the expansion of residency as a means for transfonning teacher education, and thus P12 student learning experiences.

C. Quality of Management Plan

Cl. Clearly Specified and Measurable Goals, Objectives, and Outcomes

Aligned with project goals and objectives outlined in the above sections, we expect the following project outcomes: **1)** design and implementation of effective professional learning experiences for 110 residency-affiliated educators that reach approximately 2500 K-12 students in residency innovation classrooms; 2) design and implementation of effective professional learning experiences for more than 275 Emerging and Developing Teacher-Leaders that reach approximately 10,000 students across three non-residency paiiner districts; 3) Increased capacity of residents, mentor teachers, and teacher leaders to design and enact instructional activities that merge evidence-based instrnctional practices with CR-SEL; and 4) hnprove outcomes related to teacher diversity, quality (including student outcomes), and retention. More details related to alignment of goals, project activities, and sho1i- and long-te1m outcomes are included in our logic model (Appendix G).

C2. Management Plan (including responsibilities, timelines, and milestones)

The work plan and timeline of activities below represent a thorough and thoughtful plan to implement all project goals and objectives on time and within budget.

Table 6. Management Plan

Objective 1. Recruit, prepare, support, and retain demographically diverse cohorts of teachers for high-need schools in high-need districts through a collaboratively developed community-focused residency program anchored in evidence-based, equity-centered practices. (AP1, CPP1)		
Hire UBTR Assistant Director & Community Outreach Coordinator	Fall 2022	
Convene District Steerin Committee	Fall 2022	& Assistant Director
Confinn priority hiring areas and resident selection criteria	Fall 2022	, Assistant Director, District L as s
Develop UBTR promotional materials, modify website	Fall 2022	Community Partnership & Placement Coordinator. GSE Communications
Tea.ding community recruitment presentations	Fall 2022	Community Partnership & Placement Coordinator
Outreach to CAS and UB Undergraduate Organizations servin students in hioh-need content areas	Fall 2022	Community Partnership & Placement Coordinator
Supporting applicant navigation through application and financial aid rocesses	Fall 2022	Community Partnership & Placement Coordinator
Cwriculum audit for infusion of culturally linguistically esponsive-sustaining pedagogies and practices in modules and coursework	Winter 2022 - Spring 2023	+ full team

Revise and refine residency curriculum to align with district needs assessments	Spring 2023	██████████████████████, & District Liaisons
Refine gradual release calendar to align with district calendars and priorities	Spring 2023	████████, Assistant Director, District Liaisons
Identify module faculty and module best practices to facilitate classroom-coursework connections	Spring 2023	████████████████
Launch of cohort collaborative meetings	Spring 2023	████████, Assistant Director
Certification workshop and exam support	Summer 2023	Assistant Director
Facilitation of Teacher Residency Summer Institute	Summer 2023	██████, Asst. Director + full team
Ongoing module faculty PLC	Summer 2023-Ongoing	████████, Kearney, Assistant Director
Ongoing Facilitation of UB Teacher Residency Consortium	Spring 2024-Ongoing	Assistant Director
Objective 2: Recruit, develop, and support high-quality mentor teachers and induction specialists in residency partner schools by implementing evidence-based coaching and induction support models.		
Confirm mentor teacher selection process	Winter 2022-23	████████, Assistant Director, District Liaisons / Steering Committee
Confirm induction specialist selection process	Winter 2022-23	████████, Assistant Director, District Liaisons / Steering Committee
Coordinate school-based presentations to recruit prospective mentor teachers and induction specialists	Spring 2023	████████, Assistant Director, District Liaisons / Steering Committee
Classroom visits to prospective mentor teachers	Spring 2023	████████, Asst. Director, District Liaisons
Match residents with mentor teachers	Spring 2023	████████, Asst. Director, District Liaisons
Coordinate instructional mentoring PD & Teacher Residency Summer Institute schedule	Spring 2023	████████, Assistant Director ████████
Identify Clinical Experience Coaches	Spring 2023	████████, Asst. Director
Coordinate NTC trainings for mentor teachers, induction specialists, and clinical experience coaches	Summer 2023 & annually in summer	████████, Asst. Director
Facilitate teacher residency summer institute	Summer 2023 & annually in summer	████████, Asst. Director + full team
Ongoing Facilitation of UB Teacher Residency Consortium	Spring 2024-Ongoing	Assistant Director
Follow-up NTC trainings for mentor teachers, induction specialists, and clinical experience coaches	Winter-Spring 2024	████████, Asst. Director
Objective 3: Through a tiered and multi-faceted series of professional development activities, increase the capacity of residents, early-career teachers, mentor teachers, and teacher-leaders to merge evidence-based instructional strategies with culturally responsive, transformative social emotional learning supports that enable teachers to create effective and inclusive learning environments for students. (AP1, CPP1, CPP2)		
Hiring Graduate Assistants	Fall 2022	████████████████
Development of PL modules for Evidence-based Instructional Strategies & SEL and collaboration with Action Research Planning Team	Fall 2022-Spring 2023	████████ & Action Research Faculty (Jackson)
Hiring and training Professional Learning Coordinators (2) and graduate student SEL coaches	Fall-Winter 2023	████████████████
Soliciting application for UBTR Fellows & UBTR Leadership Fellows	Fall-Winter 2022 and ongoing	████████, Assistant Director, Community Partnership & Placement Coordinator
Coordinating with partner districts to identify emerging	Winter-Spring	Community Partnership & Placement

teacher-leaders for PL activities	2023 and ongoing	Coordinator
Facilitation of Evidence-based Instructional Strategies + SEL PL sessions for residents, mentors, and non-residency mentors during the TRSI	Summer 2023 and each subsequent summer	███████, Professional Learning Coordinators, GA, and Team
Launch of Collective Action Research Teams for Transformation	Summer 2023 & annually at TRSI	██████ & Action Research Faculty (Jackson)
Ongoing module faculty PLC	Summer 2023-Ongoing	███████, Assistant Director
Facilitation of Evidence-based Instructional Strategies + SEL PL modules & sessions	Fall 2023 & ongoing	███████, Professional Learning Coordinators, GA, and Team
Ongoing Facilitation of UB Teacher Residency Consortium	Spring 2024-Ongoing	Assistant Director
Facilitation of SEL PL sessions throughout the P-12 school year	Ongoing	Professional Learning Coordinators, GA, and Team
Facilitation of Leadership-specific PLC	Ongoing	Assistant Director

C3. Procedures for Feedback and Continuous Improvement Since inception in 2018, UBTR has established structures and systems for soliciting feedback from various stakeholder groups for the purposes of continuous improvement. The UBTR Advisory Council will serve as the oversight and advisory board to the UBTR Program, meeting quarterly to review ongoing formative assessments and evaluation data (inclusive of resident, residency alum, mentor teacher, school/district leaders, and student outcomes data) to determine needed revisions and refinements to project components. The District-University Steering Committee will work collaboratively on program components related to curriculum, refinement of a gradual release calendar that aligns with district calendars and priorities, and that identifies and addresses areas of need identified by residents, mentor teachers, and clinical experience coaches. Internally, the UBTR Core Program Team will be responsible for all operational aspects of program implementation.

D. Quality of the Project Evaluation

The lead evaluators on this project include ███████, Director of the Metropolitan Educational Research Consortium (MERC); ███████, Evaluation Coordinator for MERC; and ███████, Professor of Research and Evaluation ███████ ███████ have significant experience with large federally-funded research and evaluation projects, including studies that explore models of teacher development and preparation. ███████ ███████ are currently leading the evaluation of a federal Supporting Effective Educator Development (SEED, award # U423A) program to evaluate the impact of the RTR/NTC teacher residency model on teacher retention and student achievement as it was expanded from one to four school districts. The evaluation team holds the qualifications, depth of experience and

capacity to complete the evaluation in an unbiased, objective manner that meets existing standards for ethical, credible and effective research and evaluation (Yarbrough et al., 2010).

The evaluation design includes methods to support fo1mative evaluation activities to provide *performance feedback to the UB TR personnel to permit periodic assessment of progress* ***toward achieving intended outcomes.*** The design also ***includes components that will produce*** *evidence* ***about the project's*** *effectiveness* ***that would meet the WWC standards version 4.1 with*** ***reservations.*** The findings from the evaluation can guide continuous program improvement (see section C3), and will be used to explain and provide impo1tant context for the impact evaluation findings.

Evaluation Questions. The evaluation questions are organized according to two main focal areas: (1) the development and implementation of the UBTR model, and (2) the impact of the UBTR model on new teacher SEL and culturally responsive teaching knowledge and practices, student outcomes, and teacher retention.

Table 7. EvaIuat10n auest"ions

Implementation Study Questions (ISQl - ISQ6). The evaluation will assess adherence to, and ongoing context- specific adaptations of, the UBTR program including keycomponents, inputs, outputs, and fidelity thresholds as sites implement the full model under typical district conditions.
ISQl - What vruiations exist/emerge/occur in the implementation of the UBTR model (e.g., Summer Institute (TRSI), modularized course work, gradual release, induction support) across the participating schools and school district, and over time? What community and school factors influence the implementation of the model? **ISQ2** - How does the UBTR recmit and retain diverse teacher candidates? How successful ru·e these effo1ts from the perspective of program stakeholders? **ISQ3** - How are the professional learning initiatives implemented across the prutnering school distiicts? What is the level of engagement? What are the perceptions of these initiatives from the perspective of program stakeholders? **ISQ4** - What is the experience of Mentor Teachers in the New Teacher Center Induction Model Training? How prepru·ed ru·e Mentor Teachers to suppo1t Teacher Residents professional growth and development dming the residency yeru·? **ISQS** - How does pruticipation in UBTR influence the professional growth of Mentor Teachers and emerging and developing teacher leaders? **ISQ6** - How satisfied are pruticipants with the UBTR program? What aspects of the UBTR model conti·ibute to pa1ticipant prepru·edness, professional leruning and program satisfaction?
UBTR/NTC Model Impact Study Evaluation Questions (EQ 1 - EQ9). Using a quasi-experimental design to meet WWC standards with reservations, the impact study will examine keyoutcomes related to (l) teacher development of SEL and culturally responsive and sustaining practices, (2) student outcomes, and (3) teacher retention.
New Teacher Practice Impact Study
EQ 1 - What is the relationship between pruticipation in the UBTR program and the development of

knowledge of culturally responsive teaching and transformative social emotional learning strategies? How does this compare with non-UBTR prepared teachers? **EQ 2** - What is the relationship between pruticipation in the UBTR program and the implementation of high-quality instrnctional practices including culturally responsive teaching and social emotional leruning strategies? How does this compru·e with non-UBTR prepru·ed teachers?
Student Impact Study
EQ 3 - What is the impact of the UBTR model on student achievement in the classrooms of UBTR and non-UBTR prepared teachers? **EQ 4** - Is there a difference in students' social emotional learning outcomes of the UBTR teachers compru·ed to students of teachers in the non-UBTR condition? **EQ 5** - What is the impact of the UBTR model on student attendance in the classrooms of UBTR and non-UBTR prepared teachers? **EQ - 6** - What is the impact of the UBTR model on students' in-school problem behaviors in the classrooms ofUBTR and non-UBTR prepared teachers?
Teacher Retention Impact Study
EQ 7 - How effective is UBTR at retaining teachers for se1vice in high-needs schools as compared to teachers prepru·ed through non-UBTR prepru·ation programs? What ru·e the factors underlying vrufation in retention? **EQ 8** - How effective is UBTR at rec1uiting and retaining teachers of color? What ru·e the factors underlying vru·iation in retention? **EQ 9** - How effective is UBTR at rec1uiting and retaining teachers in sho1tage areas such as mathematics, science, language, and ESOL? What are the factors underlying variation in retention?

Notes on data sources. A detailed table of data sources used to answer the implementation and evaluation questions above can be found in Table 5 (Appendix H). The data sources include (1) secondaiy administrntive data at both teacher and student level, (2) program a1tifacts (e.g., CCU logs, meeting agendas, etc), and (3) a variety of primruy data sources including surveys, interviews / focus groups, and classroom instructional videos. In the case of quantitative instiuments used for primaiy data collection, measures will be identified (from existing validated scales) and/or adapted to meet evaluation needs. ***When appropriate validity and reliability testing of quantitative instruments will be conducted to ensure technical adequacy.*** To reduce the burden of primaiy data collection, several of the evaluation insti11ments will be used to answer multiple questions.

D1. Produce Evidence that Meets the WWC Standards with Reservations.

Following the WWC guidelines (version 4.1), baseline equivalence for the quasi-experimental component of the evaluation will be established for groups in the analytic samples (teachers and students in the UBTR ti·eatinent vs. non-UBTR conditions) to meet the WWC standards with rese1vations. Baseline equivalence is satisfied if the repo1ted difference of any

baseline characteristic is equal to or less than .25 SD in absolute value (Ho et al., 2007). For differences between .05 and .25 SD, the analysis will include statistical adjustment for the baseline characteristic.

A quasi-experimental design (QED) with a matched sample of teachers will be used to examine the impact of UBTR on student achievement, instructional practice and teacher retention. The UBTR prepared teachers from cohort 1(treatment condition) will be matched to a set of comparison non-UBTR prepared teachers (including those who experienced traditional or alternative teacher preparation programs). These matches will be based on demographic characteristics (e.g., # years teaching, grade level, subject area, gender, ethnicity) and schools characteristics (e.g., %FRL, % minority, % Disabilities) which they serve. Each UBTR teacher (n=20) will be matched to the three closest comparison cases. The 20 UBTR graduates and roughly 60 comparison cases will constitute the base number of individuals (n=80) for whom we will calculate attrition (retention) and obtain measures of teacher outcomes among non-attriting members. A logistic regression model—with student demographics, and the prior year's achievement, as conditional variables—will be used to compute propensity scores (all student data in the regression will be obtained from the year prior to being taught by study teachers). We will explore both sub-classification and one-to-one matching with replacement (Dehejia & Wahba, 1999; Michaelopoulos, Bloom, & Hill, 2004). We anticipate about 800-900 students in the analysis.

A power analysis using the PowerUp package was conducted to determine the required sample size to detect impacts on student achievement assessed at the end of year 3. We expect student achievement scores of approximately 20 UBTR and 60 matched teachers. For a conservative estimate, we reduced the number of teachers in the UBTR condition to 18 and for the comparison condition to 54 to account for a 10% attrition rate. These represent the number of teachers we expected to be in elementary and secondary grades for whom we will obtain achievement scores (to assess both equivalence and impact). We assumed $n = 25$ students per teacher after attrition and matching, power 80%, .05 level of significance for Type-I error, R-squared values of .70 and .50 for teacher and student levels, respectively. The minimum detectable effect size (MDES) for student achievement is approximately .21, and for teachers is .35, similar to values of prior quasi-experimental and RCT studies of teacher preparation programs (e.g., Young et al., 2017; Glazerman et al., 2010).

D2. Performance Feedback/Assessment of Progress Toward Achieving Outcomes. In

addition to the primary findings for the implementation study (ISQ1 - ISQ6) and impact studies (EQ1 - EQ9) (see below), we will engage in ongoing interim reporting of key descriptive information for formative feedback and program improvement, including emerging findings from surveys, interviews, and content assessments of teachers and students, to provide timely feedback to improve the program towards the intended outcomes. Findings will include teachers' knowledge development for culturally responsive and transformative SEL practices, trends in student achievement over the course of the school year, and effectiveness of the program from longitudinal interviews.

D3. Use of Objective Performance Measures to Produce Quantitative and Qualitative Data.

A key component of the evaluation will be an implementation study of the UBTR program. This component will (1) provide treatment fidelity data on changes and variation in program design across settings and over time support the analysis and interpretation of the impact studies, and (2) provide a wide range of data to measure program performance for the purpose of performance feedback. Analyses and findings from this study will be shared with UBTR leaders quarterly to support discussions of program implementation and design. Data will come primarily from (1) ongoing program surveys and (2) qualitative interviews and focus groups with a purposeful selection of key program participants including teacher residents, MTs, and developing teacher-leaders. The evaluation team will also collect and review program documents and administrative data. Descriptions of measures and data sources can be found in Table 5 (Appendix H).

D4. The extent to which the methods of evaluation will provide valid and reliable performance data on relevant outcomes.

Below are discussions of key data collection and analysis activities connected to the implementation study.

Program Surveys. Surveys to measure program effectiveness will be adapted from prior UTBR surveys to reflect the proposed program activities. These surveys will be administered to all key program participants (TRs, n=40; MTs n=40; Emerging Teacher-Leaders, n= 150) on an annual basis at the end of each school year. In addition, surveys measuring various domains of teaching knowledge and practice will be developed and administered twice per academic year (early fall and late spring) to assess teachers' self-reported level of knowledge development, current educational practice and preparedness for teaching in a high-needs school context. For the purpose of the implementation study, analysis will be descriptive and focus on UBTR resident

sense of preparedness for teaching in high needs schools. *Note: elements of this survey will serve as measures for the impact study (see below).*

Interviews and Focus Groups. For UBTR SEED cohort 1 (starting in SY 23-24) approximately 8 residents will be selected for longitudinal interviewing. Interviews will occur at 4 time points: (T1) opening summer institute, (T2) spring of residency year, (T3) fall of 1st year of teaching, (T4) and spring of 1st year of teaching (total cohort 1 interviews = 32). We will also interview a purposeful sample of 8 cohort 2 residents at T1 and T2 (total cohort 2 interviews = 16). Participants in the longitudinal interviews will be selected to capture variation across school, content area, and racial/ethnic identity. Interview protocols will be adapted from prior longitudinal interview studies of residency models conducted by members of the evaluation team. In addition to teacher resident interviews, the evaluation will also involve interviews with a purposeful sample of MTs (n=16), focus groups with emerging and developing teacher leaders (6 focus groups; 4 to 6 participants each), and UBTR leaders and program staff (e.g., SCs, ISs, TEAs) to understand the experience and decision-making underlying program implementation. These focus groups will occur in the spring / early summer of each year. All qualitative data (i.e., focus groups, interviews) will be audio recorded, transcribed and imported into ATLAS.ti v. 8.1 for analysis. The analytic process will involve systematic and iterative code development and documentation procedures for team-based coding and analysis (MacQueen et al., 1998). We will employ deductive and inductive approaches to develop analytic codes reflective of UBTR program theory and emergent ideas (Miles et al., 2018; Saldaña, 2016).

Other implementation data sources. In addition to the data sources listed above, the evaluation team will also collect and analyze (1) administrative data on the participant pool and the demographics of the district student body and workforce, (2) UBTR program documents (e.g., course syllabi, meeting agendas, etc.), and (3) other program artifacts.

D5. Information to guide possible replication including information about the effectiveness of the approach or strategies employed by the project.

Using a mixed-method quasi-experimental design, the impact study will provide an in-depth examination of the impact of the UBTR SEED program on three key areas: (1) the instructional practice of UBTR graduates, (2) the outcomes of students in the classes of UBTR graduates, and (3) the retention of UBTR graduates after one year of teaching. The impact analysis, in conjunction with the implementation study, will provide evidence to support replication and

scaling. Below are discussions of key data collection and analysis activities connected to the impact study.

Teacher resident outcomes (EQ 1 and EQ 2). A primary outcome of the UBTR program is the development of culturally responsive and SEL practices overtime.e Data will be analyzed independently to develop findings unique to the data source and then triangulated to consider points of convergence and divergence.

Comparative study of teacher survey. Using a comparative design, a survey of instructional practice will be administered in the spring SY 24-25 to cohort 1 of UBTR prepared (n=20) and matched non-UBTR prepared teachers (n=60). The UBTR participants will take the survey at 2 time points (spring of residency year, spring of year 1 of teaching). Non-UBTR teachers will take the survey in the spring of year 1 of teaching. To examine teacher survey data, differences between UBTR and non-UBTR prepared teachers will be conducted using descriptive statistical procedures and fixed effect models (FEMs). For the fixed effect model, teacher outcomes, including scale-level scores will be regressed on grade levels, subject areas, the treatment effect between schools, and dummy variables of school affiliation (McNeish & Stapleton, 2016).

Longitudinal resident interview. To develop a deeper understanding of the development of teacher practice, we will use the longitudinal interviews with residents (described above) to track development of cohort 1 of UBTR teachers from residency through their first year of teaching. For the purpose of the impact study, interview protocols will focus on the development and implementation of culturally responsive and SEL practices.

Classroom observation of high-impact practices. To assess the quality of instructional practice including the use of CR-S practices and social and emotional learning strategies, classroom videos will be collected and analyzed from a purposeful sample of UBTR participants (n=8). In line with the methodology of prior classroom video studies (e.g., Fishman et al., 2017), we will ask selected teachers for a video-recording of a lesson that is representative of their teaching at the beginning and end of the school year. triangulated perspectives on changes to teacher instructional practices. Analysis of the classroom observation videos will use the Classroom Assessment Scoring System (CLASS®) (Pianta & Hamre, 2008) which is aligned to the goals and program activities of UBTR including Emotional Support, Classroom Organization, and Instructional Support. The CLASS has been used as a measure of instructional practice in rigorous evaluation studies (met WWC standards 4.0 without reservation) of a teacher residency program that incorporated the NTC model and coaching tools similar to UBTR (Ault et al., 2017)

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and of a professional development program supporting teachers in high-needs schools (Meyers et al., 2015). In addition, classroom videos will be examined for evidence of CR-S teaching practices, based on Siwatu's (2007) Culturally Responsive Teaching Scale.

Student outcome study (EQ 3 through EQ 6). Student outcome data from district administrative systems will be collected at the end of the grant period for cohort 1 of UBTR prepared and matched non-UBTR prepared teachers. Variables will include end-of-year student grades, GPA, NYS Regents examinations, quarterly ELA and math benchmark grades for elementary students, attendance, student disciplinary referrals by teachers, Student Learning Objective (SLO) Assessments, and Dynamic Indicators of Basic Early Literacy Skills (DIBELS) scores. In addition a student survey will be developed to assess the social, emotional, and behavioral outcomes. Dependent variables in these models will include student achievement outcomes, attendance, and student survey SEL measures. Student scores will be z-transformed within grade to be put on a common scale. Using HLM7 (Raudenbush et al., 2004), hierarchical linear models will be tested to investigate whether students' learning (level 1 student outcomes) vary significantly by teacher condition and instructional practices (level 2 teacher predictors). HLM accounts for hierarchically clustered structure of the data (e.g., students nested within teachers), by allowing for estimation of variance at the different levels (student at level 1 and teacher at level 2) (Raudenbush & Bryk, 2002). Intraclass correlations (ICCs) will first be calculated to determine the proportion of the total variance in the outcomes accounted for at each level. The random effects for the slope (rate of growth) for student outcomes will be estimated, and school-level effects will be fixed (due to small school n). To examine how student academic achievement varies by teacher-level characteristics (e.g., treatment or comparison group, instructional practices) a series of 2-level models (student at level 1, teachers at level 2) will be tested. Covariates (e.g., %Free Reduced lunch, students' prior achievement) will be included in the models. The R^2 statistic (Snijder & Bosker, 1999) will be used to determine the amount of variance accounted for across levels in each model. Cohen's d (effect size) will be calculated (Spybrook et al., 2006).

Retention study (EQ 7 through EQ 9). This component of the evaluation explores the effects of the UBTR model on the retention of new teachers. To evaluate retention in high-need schools, measures of retention will be collected for participants in UBTR cohort and matched non-UBTR comparison group as they continue in the LEA classrooms. The rates of attrition for UBTR graduates will be compared with those of non-RTR graduates with similar characteristics (e.g.,

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teaching assignment, grade level, content area). Logistic regression will be used to estimate the log odds of retention in the teaching profession in each condition, as well as a difference between conditions in the probability of retention, 1 year after entry into the UBTR program (outcomes: move, stay, leave) with the same covariates as above. Given the relatively small number of schools, fixed effects will be used in all impact analyses to indicate school membership.

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