### **Project SSHINE**

### Supporting Students with High-Intensity Needs with Evidence-Based Practices

# TEACHER QUALITY PARTNERSHIP GRANT PROGRAM

### Office of Elementary and Secondary Education, Department of Education

The purposes of the TQP program are to improve student achievement; improve the quality of prospective and new teachers by improving the preparation of prospective teachers and enhancing professional development activities for new teachers; hold teacher preparation programs at institutions of higher education accountable for preparing teachers who meet applicable State certification and licensure requirements; and recruit highly qualified individuals, including individuals of color and individuals from other occupations, into the teaching force.

To ensure the application meets all priority requirements and that reviewers can locate this information in the application, we have used the table of contents below to create the proposal and we have indicated the page number(s) where each component is located in the project narrative and appended materials.

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### **Absolute Priority and Competitive Preference Priorities**

## Absolute Priority 2: Establishing an Effective Teaching Residency Program

The primary goal of this project (hereafter called *SSHINE*) is to recruit and retain 36 new special educators at the University of Cincinnati (UC) in partnership with a high-need local education agencies (LEA) (i.e., Cincinnati Public Schools [25.44% of students identified as living in poverty based on SAIPE census data] and high-need schools in the district [e.g., Roberts Academy, 98% eligible for free and reduced-price lunch] and the Hamilton County Educational Service Center (HCESC). We provide further data about our partner LEA and HCESC and their high-need schools in Appendices A, B, and E. At UC, the College of Education and the College of Arts and Sciences are partnering together (see joint letter of support in Appendix E) to revise the special education program's curriculum to ensure prospective teachers acquire the content and pedagogical knowledge necessary to teach K-12 students with high-intensity needs (HIN) content area instruction in literacy and social-emotional learning.

The purposes of *SSHINE* are to strengthen the content preparation, clinical experiences, and mentoring supports of ¿UC's special education teacher preparation program and thereby to improve the quality of graduates from our program and the academic achievement and social-emotional development of the K-12 students with HIN served. These purposes align with Teacher Quality Partnership Grants as specified in section 201 of the Higher Education Act to improve (a) student achievement, (b) the quality and diversity of the teaching force, and (c) teachers' competency. As documented in the partner needs assessments (see Appendix B), our partners have high turnover in their special educators and they consider special education to be a hard-to-staff, high-need area. Whereas most districts consider special educators hard to staff, Cincinnati's shortage is pervasive with 28 <u>current</u> vacancies in the middle of the school year

(which is on top of the 40+ special education vacancies they filled already this year).

SSHINE's second goal is to increase educational outcomes of K-12 students with HIN, which can be achieved by successfully completing the first goal. To positively impact K-12 students' learning, we are focused on systems-level change in (a) UC's special education program, and (b) the professional development and induction supports provided to new and current special educators in our partner agencies. Through SSHINE, we will complete the following three activities: (1) Revise UC's clinical experiences to create a year-long residency to ensure our prospective teachers have sustained experiences teaching K-12 students with HIN with the ongoing support of high-quality mentor teachers. (2) Add another track to UC's special education program that focuses on stronger social-emotional and literacy content preparation. UC's program already contains strong pedagogy in the use of high-leverage practices (HLPs) and evidence-based practices (EBPs) to teach students with HIN (Evidence Forms in Appendix H). We will be supplementing this pedagogical focus with content knowledge by collaborating with interdisciplinary faculty and staff. (3) Developing a strong partnership among UC's Systems Development and Improvement (SDI) Center and Cincinnati Public Schools to create an effective and sustainable induction system for new teachers. The SDI Center has a positive and sustained track record of providing ongoing supports to educators across Ohio through projects such as the Ohio Partnership for Excellence in Paraprofessional Preparation and ALL Ohio Literacy. SSHINE will leverage the collective expertise of the SDI Center and its partners to create and evaluate a new, 2-year induction program for graduates of UC's Program.

Given the perpetual need for highly qualified special educators who are able to collaboratively design and implement EBPs to improve outcomes for students with HIN, the specific aims of *SSHINE* are to prepare 36 prospective special educators (in 4 cohorts) who

demonstrate the knowledge and skills necessary to (a) demonstrate high expectations for all learners; (b) implement evidence-based literacy and social-emotional instruction, and (c) act as leaders in collaborating with interdisciplinary teams to implement instruction, intervention, and experiences in inclusive settings to support the learning of K-12 students with HIN. Prospective teachers will gain experience collaborating with professionals and families to meet the needs of K-12 students and *SSHINE* will uniquely focus on prospective teachers' skills to develop effective educational programs that focus on both academic instruction (e.g., literacy) and non-academic instruction (e.g., self-determination) in inclusive settings.

Across *SSHINE*'s five years, we will train 36 new special educators whose focus will be to deliver instruction to K-12 students with HIN. These educators will progress through their programs in cohorts to facilitate collaboration and provide opportunities for trusting relationships to form to support the graduates into their first years as a teacher. Because each special educator of students with HIN serves about 12 students annually, *SSHINE*'s positive impacts can extend to 480 K-12 students per year. We will also provide ongoing support to at least 10 experienced teachers who will serve in the capacity of mentor teachers. The mentor teachers, prospective and new teachers, and UC faculty and staff will engage in collaborative learning to support ongoing professional growth and promote a climate of support that helps to retain the new teachers in the profession. Collectively, these efforts will strengthen the capacity of our partnering districts and schools to meet the academic and social-emotional needs of students with HIN.

Competitive Preference Priorities 1 & 2 and Invitational Priority: Increasing & Supporting Educator Diversity and Grow Your Own Programs

In 2021, UC created a Black, Indigenous, and People of Color (BIPOC) Teacher Pathway. The BIPOC Pathway includes partnering with districts to create grow-your-own

programs to support recruitment and retention of BIPOC educators. It includes faculty, staff, partners, and prospective teachers critically reflecting and engaging in ongoing professional learning to develop knowledge in culturally responsive pedagogy and skills in implementing culturally responsive practices. Although we have developed this program, we have only piloted it in two districts. Our TQP partners are new districts where we will be embedding these practices to improve the diversity of teacher candidates in our partnership program (priority 1). The grow-your-own model will support the recruitment and placement of BIPOC teachers. The ongoing mentoring during and after their program will further enhance completion and retention.

Our key personnel have strong local and state connections that will be beneficial in recruiting high-quality scholars who come from diverse backgrounds. For example, [PI] leads a community of practice of 11 institutions of higher education in Ohio who focus on diversifying the educator workforce with BIPOC educators. A core component of this effort is individualized mentoring as a means for support candidates through their programs and building relationships that will sustain them in the professional after graduation. Ohio currently has a dwindling supply of BIPOC teacher candidates in the pipeline, which without intentional action will further the underrepresentation of BIPOC teachers in Ohio. Less than 70% of Ohio's student population is White, but over 92% of the teacher workforce is White (Education Trust, 2022). SSHINE will support the recruitment and retention of BIPOC scholars in a shortage area (i.e., special education) (Priority 2) using a grow-your-own model (Invitational Priority) with partner districts to support the short-term needs of insufficient personnel as well as the long-term needs by ensuring an ongoing pipeline of educators – including BIPOC educators – into the profession.

# Competitive Preference Priorities 3 & 4: Supporting Students' Social, Emotional, and Academic Needs and Promoting Equity

Our redesign efforts are focused on embedding social-emotional HLPs and EBPs into our program (Priority 3). This involves the environment (e.g., creating positive, inclusive, and identify-safe climates) and instruction (e.g., implementing EBPs, bias-free assessments). It also focuses on prospective teachers examining their own beliefs about teaching and learning and taking a critical examination of the systems that have resulted in a loss of equitable instruction followed by intentional action to accelerate instruction for learners that have been underserved.

Our redesign efforts also include the revision of literacy coursework to have stronger alignment with the science of reading. This is critical, because literacy is equity (Priority 4)! Our program already has a focus on the essential components of literacy instruction (e.g., phonics, vocabulary, fluency), but it needs strengthened in creating opportunities for prospective teachers to practice using explicit and systematic instruction. Students with HIN are often taught using ineffective methods that are not comprehensive enough in their approach to produce meaningful and sustained change in students' learning. SSHINE will work to change that. SSHINE focuses on providing high-quality preparation in evidence-based social-emotional and literacy practices so that all graduates have the knowledge and skills to effectively teach all learners to read. (PI) leads a statewide Literacy Advisory Council with over 70 representatives from across the state who offer guidance on the development of web-based professional learning resources to improve educators' literacy teaching and students' literacy learning. These resources are currently being used to support over 470 educators in Ohio to receive ongoing professional learning opportunities in evidence-based literacy practices for elementary, middle, and high school teachers. One specific project that leads is AC-SEL, which stands for Academic

and Social Emotional Learning for Adolescents with Disabilities. AC-SEL focuses on the intersection between social-emotional and literacy learning and how when instruction embeds components of each, student learning is accelerated (Cross Francis et al., 2019). Professional learning materials that we have created for the AC-SEL project will be used to support prospective and new teachers in understanding this intersection and improving their instruction and intervention to address both social emotional and literacy needs of their students. These efforts will support all students, but they will be even more beneficial for students who have experienced unequitable learning opportunities in the recent past due to extraneous circumstances (e.g., COVID-10) and those who have been impacted by trauma.

### **QUALITY OF THE PROJECT DESIGN**

#### SSHINE's Rationale

Students with HIN include a variety of learners (e.g., those with intellectual disabilities; those performing two or more grade levels below norms) who require extensive support to access the general education curriculum (Kurth, et al, 2019; Whemeyer et al., 2016). There are significant shortages of special educators and there is an even greater need for teachers who are highly trained in EBPs for providing appropriate services for students with HIN. Therefore, students with HIN have less exposure to effective instruction, which results in fewer occasions for students with HIN to develop proficiency across academic areas. Individuals with HIN are often the least likely to be employed (Bush & Tasse, 2017) and have limited opportunities to live on their own and develop meaningful relationships (Lee & Morningstar, 2019).

Academic and non-academic activities that occur during the school-age years directly impact post-school outcomes (Kuntz & Carter, 2019). To promote equitable educational experiences and ensure students with HIN are career ready, prospective special educators need

strong pedagogical and content-specific preparation (Israel et al., 2015). Specifically related to promoting equitable literacy outcomes for students with disabilities, teachers must maintain high expectations for all learners, demonstrate mastery of the academic content, and utilize a comprehensive approach to teaching literacy that focuses on explicit and systematic instruction across a range of literacy components (e.g., phonics, phonemic awareness). Teachers' ability to collaboratively implement systematic, intensive interventions in inclusive settings are an influential factor in improving outcomes for students with HIN (Kleinert, 2020; Ruppar et al., 2017). However, many teachers are unprepared to collaboratively design such instruction and students with disabilities tend to be taught by teachers with less expertise (U.S. Commission on Civil Rights, 2009). These data emphasize the importance of intensive clinical experiences where prospective special educators can apply their knowledge in the classroom while teaching students with HIN and observing how their use of EBPs improves student learning.

Special education teacher shortages. Throughout the United States, there have been critical shortages in special educators for over 30 years (McLeskey & Billingsley, 2008; Zhang, et al., 2013). In Ohio specifically, the most frequent vacancy in K-12 schools being positions for special educators (Ohio Coalition for the Education of Children with Disabilities, 2019). Moreover, students with HIN are the least likely to be served by highly qualified teachers (Ruppar et al., 2016) and even when teachers are highly qualified, their use of EBPs with students with HIN is limited. Brock and colleagues (2019) also found that these educators from Ohio believed their difficulty selecting and implementing EBPs was directly related to students' progress toward goals. These and other similar data (e.g., Mitchen et al., 2006) highlight unequitable educational experiences for students with disabilities who are currently being educated by teachers who are lesser qualified to meet their educational needs and who struggle to

select and implement EBPs that promote learning and growth for students with HIN. Providing an opportunity for prospective teachers to enroll in an initial licensure program, earn a Master's degree with licensure in HIN, and receive the necessary mentoring and support to develop the skills required to meet the needs of a clearly underserved population is critical.

As shown in the *Needs Assessments* from our partnering LEAs (see Appendix B), both they and the consortium of high-need schools they serve have chronic turnover in qualified special educators each year, with the greatest need related to teachers of students with HIN. For example, Cincinnati Public Schools currently has 28 open positions for special educators in the district and they typically hire 35 to 40 new special educators each year. This attrition negatively impacts K-12 students' learning because the ongoing transitions often mean students are taught by teachers with the least amount of experience. Ongoing, rigorous training paired with induction supports and professional learning efforts for new and mentor teachers of students with HIN that encompass the goals of *SSHINE* will assist our LEA partners in filling vacancies of their special educators and in supporting their retention.

Achievement gaps between students with and without HIN. With the persistent unequitable educational experiences between students with and without HIN, achievement gaps between these populations are not surprising (e.g., Wei et al., 2013), especially in light of data that shows the educational experiences of high school students with HIN do not emphasize malleable characteristics or create environments that allow students to succeed (e.g., Carter et al., 2020; Kurth et al., 2016). SSHINE will work to ameliorate these achievement gaps by preparing prospective special educators to have strong teaching skills by integrating effective pedagogical practices within clinical experiences and ensuring ongoing mentoring from trained, experienced, and effective special educators who make positive impacts on their K-12 students with HIN. The

purpose of *SSHINE* is to prepare our prospective teachers to (a) promote high expectations for all learners, (b) use HLPs and EBPs in an age- and developmentally appropriate manner, and (c) collaborate with interdisciplinary teams to systematically address the needs of K-12 students with HIN in a manner that ensures the students are prepared for post-secondary education, employment, and community participation after graduation. Moreover, as *SSHINE* graduates transition from prospective teachers to new teachers, we will continue providing them with the necessary, ongoing induction supports (e.g., high-quality professional learning through the <u>ALL</u> <u>Ohio Literacy</u> learning modules; see sample materials in Appendix H) in a community of practice comprised of UC faculty, district partners, and *SSHINE* prospective teachers.

Necessity of high-quality preparation for special educators. To promote equitable educational experiences for students with HIN, special educators must be trained, scaffolded, and mentored to use EBPs to meet each student's needs. This requires an intentional focus on school-university partnerships that create sustained opportunities for prospective teachers to engage in clinical experiences where they are supported to use the practices with students with HIN while receiving performance-based feedback from their mentor teacher and UC clinical educator.

The field of special education has well established competencies for professionals. The Council for Exceptional Children (CEC) lists seven standards (e.g., learning environments) with associated sets of knowledge and skills that novice special educators should master during their preparation program (CEC, 2020). In addition, HLPs are essential teaching strategies for promoting positive outcomes for K-12 students (Ball & Forzani, 2011; Grossman et al., 2009; Leko et al., 2015; McDonald et al., 2013; McLesky et al., 2017) and EBPs are effective for teaching students with HIN (e.g., explicit instruction; Fleury et al., 2014). HLPs and EBPs are essential elements of our coursework that we require our prospective teachers to apply during

their clinical experiences. This will be a focus in SSHINE as we prepare prospective special educators with the pedagogical and content-related skills needed to effectively teach academic and nonacademic knowledge and skills to students with HIN.

### SSHINE 's Goals, Objectives, & Outcomes

The ultimate purpose of *SSHINE* is to enhance the equitable learning experiences of K-12 students with HIN and thereby increase the students' academic achievement. Aligned with this purpose, the <u>summative goal</u> is to effectively train and retain 36 prospective special educators of students with HIN. To achieve the purpose and summative goal, the <u>formative goal</u> ensures each prospective teacher is proficient with the following three professional competencies throughout their master's degree program: (1) promoting high expectations for all learners, (2) using HLPs and EBPs in a differentiated manner that is appropriate for each learner, and (3) collaborating with diverse stakeholders using an interdisciplinary team-based approach. We elaborate upon the

summative and formative goals in our logic model (see Appendix C) and the strategic actions of the theory of change (see Figure 1).

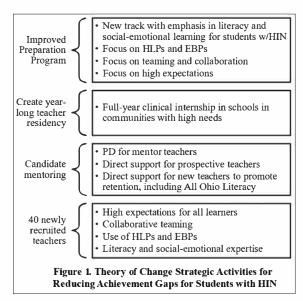
Goal 1: SSHINE will recruit and retain 36

prospective teachers – including prospective

BIPOC teachers – who graduate from UC's

Master's Special Education program and obtain

Ohio licensure as an K-12 intervention specialist.



UC and educational partners will collaborate on the recruitment and selection of scholars to align with hiring priority objectives as well as instructional initiatives and curriculum of the local and regional educational agencies. Recruitment will prioritize applicants from communities

in which they will teach and applicants from underrepresented populations in the profession. As described in the description of our response to the competitive preference priority (pp. 4-5), UC has a BIPOC educator pathway to support recruitment and retention of BIPOC educators. It includes critical reflection and ongoing professional learning to develop knowledge in culturally responsive pedagogy and skills in implementing culturally responsive practices. (PI) also leads a community of practice of 11 institutions in Ohio who focus on diversifying the educator workforce with BIPOC educators through structures and supports that enhance recruitment, mentoring and ongoing support during and after preparation, and placement.

We will use multiple recruitment strategies (replicated annually) to recruit each of the four cohorts (e.g., disseminating information to recent UC alumni and the pupil service union; holding information sessions in public businesses residing in the communities served, posting flyers in the community). All individuals will be recent graduates of 4-year institutions or midcareer changers. We will emphasize recruiting individuals who reside in the communities of our partners and individuals who are underrepresented in the teaching profession. To be eligible for SSHINE, individuals apply to UC for the master's program, have an undergraduate GPA of at least from a regionally accredited university, have three satisfactory letters of ecommendation, and a well-written cover letter outlining appropriate academic and professional goals, including how their strong content knowledge will benefit them in the educator profession. A leadership team from UC and partners will select individuals to take part in SSHINE by evaluating each applicant's professional skills, educational background, and relevant work experience. Specific dispositions that are required for eligibility in SSHINE include the following: a commitment to the teaching profession (including written verification they will complete the service obligation for at least three years or they will need to repay their stipend) and to diversity, equity, and

inclusion (which are a part of &UC's core values). *SSHINE* 's leadership team (membership from UC and district partners) will use a rubric to evaluate applicants and make selection decisions.

To retain scholars, we will capitalize on existing resources at UC and use added strategies to assure prospective teachers are adequately supported to complete the requirements of SSHINE. Prospective teachers will participate in an orientation seminar during their first summer where faculty will review project requirements, activities, and TQP program requirements. During the seminar, faculty will match prospective teachers into peer-to-peer support pairs. Peer support is an evidence-based tool to ensure student retention (Kue et al., 2006). We will also assign prospective teachers a faculty mentor to provide advice and support as they complete SSHINE's requirements. Faculty mentors will interact regularly with their mentees through seminars and distance communication systems (e.g., WebEx) and will complete at least monthly touchpoints to ensure adequate progress. As needed, we will create remediation plans to support prospective teachers who are making inadequate progress with coursework and/or fieldwork. We are particularly focused on equity during transitions into and out of the program so that BIPOC educators are fully represented during each phase of the preparation and induction process. Objective 1.1: Create a new track in the special education program that includes a focus on training in evidence-based literacy and social-emotional instruction for students with HIN.

Faculty members from UC's College of Education and College of Arts and Sciences and stakeholders from partner districts will collaborate to create a new track in the special education program with an enhanced focus on literacy and social emotional instruction – two areas in which students with HIN need extensive support. Using the collective expertise of the team and the state and national standards for content-area instruction (e.g., Ohio Standards for the Teaching Profession; International Dyslexia Association), we will (a) identify the content area

competencies needed by prospective teachers to develop a thorough content knowledge to effectively teach the content; (b) develop curriculum to teach the competencies; and (c) create assessments to evaluate prospective teachers' mastery of the content. For example, to deliver effective literacy instruction, we must ensure that our prospective teachers develop content knowledge in the essential components of reading instruction (e.g., reading comprehension, phonics) and that they understand the science behind effective reading instruction so they can effectively explain the academic subject matter (e.g., structured literacy). In Table 1 (Appendix H), we provide the shell of the Special Education Master's Program that we will refine to encompass a stronger focus on core literacy and social emotional instruction (for Objective 1.1) and the year-long residency (for Objective 1.2). As we redesign the program, we will keep the program at 16 months in length (summer, fall, spring, summer) and ensure the Project Advisory Council and UC Board of Trustees has input into and approves the new changes.

As we make curricular changes, we will keep the core components of the program that are focused on the special education content and teaching EBPs. For example, during the prospective teachers' positive behavior course, they will learn methods to conduct a functional behavior assessment and to develop function-based interventions to meet their students' needs (see evidence form). Likewise, when preparing prospective teachers to teach students who are English Learners, we support our teachers to conduct screenings for reading difficulties, to provide intensive vocabulary instruction, to regularly collect data on students' language and literacy development, and to supplement these practices with intensive small group instruction to strengthen literacy learning. For each change we make, in determining what we will retain in the program, what we will amend, and what we will replace, we will use the best research available to inform our decisions (see evidence forms in Appendix H).

Objective 1.2: Create a year-long residency for UC's Master's degree in Special Education.

The state of Ohio offers flexibility in its clinical requirements for licensure. Even so, it is important that the new residency program created through *PROJECT SHINE* align with the Ohio Department of Higher Education's requirements. The benefit of creating a year-long residency program is the added experience and mentoring prospective teachers will receive during their preparation program. To enhance the benefits prospective teachers will receive with increased fieldwork, UC faculty will collaborate with stakeholders from partnering districts to identify meaningful activities to complete while in their field experiences and to align each of these activities with a course such that the focus of coursework and the successful completion of coursework is based on prospective teachers demonstrating competency in the activities collaboratively developed with SSHINE's partners. We will create a crosswalk of these activities that identify the standards they address, the courses in which they are aligned, and the individuals from whom prospective teachers will receive feedback related to that competency. This ongoing process whereby prospective teachers receive feedback on their performance will result in a number of benefits such as improved (a) teaching effectiveness, (b) ability to receive performance-based feedback, and (c) K-12 student learning as a result of the stronger teaching. We further describe the mentoring aspect of our proposed year-long residency in Objective 1.3. Objective 1.3: Create mentoring systems to support prospective teachers during their master's and induction programs.

Mentoring is critical for teacher development and retention. Through *SSHINE*, we will review the current mentoring practices in place and compare those with best practices from the research literature. We will use this information to create mentoring handbooks for the three groups who will give and receive feedback through the master's and induction programs (i.e.,

UC faculty/staff; peer teachers; and, district personnel). These handbooks will outline and expand upon the expectations, processes, and procedures for mentoring prospective and new teachers. A major focus of these requirements will be giving and receiving performance-based feedback. As prospective teachers receive feedback, they will be scaffolded to analyze the quality of their teaching considering the feedback received and the impact of their teaching on the K-12 students' learning. These efforts will increase the quality of prospective teachers' instruction and K-12 students' learning. Additionally, graduates will participate in the traditional Ohio induction program (Ohio Resident Educator Program), a four-year initiative with beginning teachers receiving mentoring and professional development, which we will supplement with added induction supports for the first two years after graduation.

When selecting individuals from partnering districts who will serve as mentor teachers, we will be seeking individuals who meet specific requirements such as (a) fully licensed and qualified for their current teaching position; (b) at least 5 years teaching experience; (c) identified by administrators and/or peers as an exemplary teacher who demonstrates effectiveness through planning and preparation, appropriate instruction, and knowledge of content pedagogy and assessment, including the use of formative and diagnostic assessments that analyze gains in students in learning; (d) identified by administrators and/or peers as having appropriate skills in essential components of reading instruction across core and social emotional instruction; and (e) collaborates with other educators (e.g., general educators, paraprofessionals) in developing teaching proficiency. Our mentors will provide a one-year commitment to mentoring a specific prospective teacher. We will provide mentors with classroom release time to learn about the expectations, processes, and procedures required of them as a mentor and to provide ongoing support for their development as a mentor (e.g., how to model effective

teaching practices and give constructive feedback). These types of systems and supports will position the role of mentor teacher as an effective endeavor and a desirable responsibility, which will promote the sustainability of mentor teachers for future cohorts of prospective teachers.

In addition to mentoring handbooks, project personnel will collaborate with all state and local stakeholders (see letters of support in Appendix E) to refine current induction efforts to increase the supports for beginning teachers. These efforts will involve assessing strengths and needs of induction processes, and then refining the processes to systematically address challenges while embedding project outcomes (i.e., high expectations, use of HLPs and EBPs, and collaboration to increase literacy and social emotional learning). For example, UC special education faculty currently teach field embedded courses and provide ongoing professional development to educators in partner schools. As part of the grant, we will refine these activities to incorporate *SSHINE* priorities. An important aspect of these induction supports is leveraging the resources and personnel of &UC's SDI Center (e.g., AllOhioLiteracy) to develop a sustainable system where UC supports program graduates through their novice years as a teacher. This induction work is aligned with the mission of the SDI Center, ensures continued mentoring after the life of the grant, and will help us achieve our target outcomes.

Goal 2: SSHINE will enhance the educational outcomes of K-12 students with HIN by implementing a training program that prepares prospective teachers to have the knowledge and skills necessary to meet students' individualized needs by graduation.

To become highly qualified teachers who positively impact K-12 students, prospective teachers must acquire specific knowledge, skills, and beliefs. We have drafted a sample of these competencies (see Table 1) on which we will evaluate our prospective teachers. We will adapt and finalize our list of competencies based on input from our partner districts and our Project

Advisory Council. Objectives 2.1, 2.2, and 2.3 are encompassed within these competencies and are core components of our preparation program that we emphasize for all prospective teachers. We assert that by training our prospective teachers to demonstrate these professional competencies, we will indirectly impact the learning of K-12 students.

Table 1. Standards for the Teaching Profession and Aligned UC Teacher Competencies

1. Teachers understand student learning and development and respect the diversity of
the students they teach.
la. Develops, implements, and adapts instruction based on students' abilities and content
knowledge mastery
1b. Communicates with and about students using assets-based language
lc. Demonstrates high expectations for all learners
ld. Demonstrates knowledge and skills in the teaching of students who are English Learners
le. Uses culturally relevant practices
2. Teachers know and understand the content area for which they have instructional
responsibility.
2a. Demonstrates knowledge in social-emotional learning
2b. Prepares lessons based on effective literacy pedagogy and instructional strategies
2c. Teaches lessons that demonstrate literacy content knowledge
2d. Implements a literacy program that addresses the essential components of reading
instruction taught using explicit and systematic instructional methods
3. Teachers understand and use varied assessments to inform instruction, evaluate
instruction, and ensure student learning.
3a. Uses multiple sources of data to develop a comprehensive understanding of a student's

strengths and needs 3b. Interprets and communicates assessment information with stakeholders to collaboratively design and implement educational programs 3c. Uses student data to monitor student progress, analyze instructional practices, and make necessary adjustments to improve student outcomes 3d. Conducts functional behavioral assessments to develop individual student support plans 3e. Involves learners in self-assessment and goal setting to address gaps in performance 4. Teachers plan and deliver effective instruction that advances the learning of each individual student. 4a. Identifies and prioritizes long- and short-term learning goals 4b. Systematically designs instruction toward a specific learning goal 4c. Uses explicit instruction 4d. Adapts curriculum tasks and materials for specific learning goals 4e. Provides scaffolded support 4f. Provides intensive instruction 4g. Teaches cognitive and metacognitive strategies to support learning and independence 4h. Teaches social behaviors 4i. Teaches students to maintain and generalize learning across time and settings 5. Teachers create learning environments that promote high levels of learning and achievement for all students. 5a. Establishes a consistent, organized, and respectful learning environment 5b. Provides positive and constructive feedback to guide students' learning and behavior 5c. Uses flexible groupings

- 5d. Uses strategies to promote active student engagement
- 5e. Uses assistive and instructional technologies
- 6. Teachers collaborate and communicate with students, parents, other educators, administrators, and the community to support student learning.
- 6a. Collaborates with professionals to increase student success
- 6b. Organizes and facilitates effective meetings with professionals and families
- 6c. Collaborates with families to support student learning and secure needed services
- 6d. Collaborates effectively with the local community and community agencies to promote a positive environment for student learning.
- 7. Teachers assume responsibility for professional growth, performance, and involvement as an individual and as a member of a learning community.
- 7a. Understands, upholds, and follows professional ethics, policies and legal codes of professional conduct.
- 7b. Seeks ongoing professional development in the teaching of individuals with disabilities and in curricular content knowledge
- 7c. Pursues leadership roles, including advocacy, on behalf of one's students
- 7d. Uses data and methods of inquiry to problem-solve, reflect, and evaluate the outcomes of one's teaching
- 7e. Adheres to program, project, and evaluation requirements

Objective 2.1: Prospective teachers will demonstrate high expectations for all learners by creating goals and activities aligned with studentsé abilities and needs.

Outcomes for individuals with HIN after high school remain poor, with estimates of unemployment rates as high as 70 to 80% and limited engagement in the community (Smith et

al., 2010). Inclusive education experiences that promote high expectations using differentiated, intensive instruction are some of the key factors that influence adult outcomes for individuals with HIN (Mazzoti et al., 2016). For example, when parents and teachers believe an individual is capable of employment and the individual engages in paid employment during high school, the individual is more likely to be employed in adulthood (Carter et al., 2012; Mazzoti et al., 2016). Thus, it is essential that professionals (a) understand the specific predictors of post-secondary success, and (b) are able to integrate this knowledge with knowledge about differentiated, systematic instruction to plan, implement, and evaluate effective programs for students.

SSHINE's personnel will support prospective teachers to engage with individuals with HIN all four semesters of their program. These experiences will strengthen their knowledge about the diversity of strengths and abilities of the population. SSHINE prospective teachers will develop an understanding of the social-ecological perspective on disability, and use this to establish a commitment to (a) understanding the strengths of the individuals they serve and (b) striving to create inclusive learning environments that uphold high expectations and provides adequate supports, even when such tasks are daunting. Prospective teachers will continually be challenged through critical reflection activities to provide a rationale for their educational decisions, including why specific learning goals and activities are appropriate for their K-12 students. Through faculty-facilitated discussions, prospective teachers will be supported to identify areas of bias and be intentional about making educational decisions that address individual student needs and not one's preconceived ideas or aims. After delivering instruction, faculty will revisit the goals developed for the lesson and the K-12 students' progress toward meeting those goals. These discussions will scaffold prospective teachers in evaluating the effectiveness of their lessons based on their students' learning. As a result of the benefits K-12

students achieve as a result of the prospective teachers' planning and implementation of effective lessons, our teachers will shift in their beliefs to a position wherein they unequivocally state that all students are able to learn in-depth academic and non-academic content knowledge and skills. Objective 2.2: Prospective teachers will use HLPs and EBPs to deliver differentiated instruction that is age- and developmentally appropriate to K-12 students with HIN.

Multiple scholars (e.g., Ball & Forzani, 2011; Grossman et al., 2009; McDonald et al., 2013) have described essential dimensions of instruction as HLPs. HLPs are practices that can be used to leverage student learning across different content areas, grade levels, and student abilities and disabilities (McCleskey, 2017). Both general education and special education fields have a set of HLPs from which they draw to define the core competencies of effective teachers.

McKleskey et al. (2017) suggested that one way to systematically change the effectiveness of teacher education is to use HLPs as the foundation of what we teach, and to nest our instruction about HLPs in the K-12 educational setting (note: our competencies outlined in Table 1 are all examples of HLPs). Prospective teachers in *SSHINE* will gain knowledge of both the general and special education HLPs through instruction in the university setting and inclusive, field-based experiences (e.g., residency). Through this applied process, prospective teachers will develop the expertise and critical thinking skills necessary to make decisions about when and how to apply these practices in the context of specially designed instruction for students with HIN.

EBPs are specific, targeted practices that can be nested in the context of HLPs (Riccomini et al., 2017). For example, within the HLP of explicit instruction, EBPs such as visual supports (see evidence form in Appendix H), task analytic and direct instruction, and modeling can be used to teach students with HIN. While seemingly straightforward, selecting and implementing EBPs is complex and requires practice and scaffolding. Professionals must

weave together what they know about instructional and intervention practices and their students to make in-the-moment assessments and decisions (Brownell et al., 2019; McDonald et al., 2018). Specific EBPs have been identified as especially important for supporting students with HIN in inclusive settings (Kraemer et al., 2020; Kuntz & Carter, 2019; Mazotti et al., 2016; Quirk et al., 2017; Saunders et al., 2020). SSHINE will focus on training prospective teachers to use the EBPs found effective for students with HIN, while also preparing prospective teachers to (1) identify students' needs, (2) locate and evaluate EBPs in terms of appropriateness to the individual learner and the context, and (3) collaborate with others to apply these practices in increasingly complex, inclusive settings. By doing so, K-12 students will have access to more equitable learning opportunities and their academic and social-emotional outcomes will improve. Objective 2.3: Prospective teachers will collaborate with a diverse and interdisciplinary team to create, implement, and evaluate students' program plans.

Collaborative teaming is essential to developing intensive, differentiated instruction that meets the needs of students with HIN in inclusive settings (J. Kleinert et al., 2019).

Thus, Objective 2.3 is to develop prospective teachers who demonstrate the skills necessary to be leaders in collaborating with interdisciplinary teams (including families and general educators), in the creation, execution, and evaluation of students' program plans. Included in the prospective teachers' core competencies (Table 1), are a set of collaboration competencies. These competencies support students with HIN while also aligning to the standards set forth by the CEC. SSHINE will employ an approach based on the work by McDonald et al. (2018) and further described by Brownell et al. (2019) in which the prospective teachers will actively engage with their peers and other professionals (e.g., previous graduates of UC's program, mentor teachers, literacy coaches, general educators)

to (a) collaboratively design and implement systematic, differentiated instruction using EBPs; (b) seek and provide performance-based feedback, and (c) interact with families and community members in meaningful ways to accelerate student learning. Ohio uses teacher-based teams as its collaborative teaming structure where groups of educators meet regularly to engage as a professional learning community with the sole purpose of improving teaching and learning. Our prospective teachers will be members of a teacher-based team.

# SSHINE represents an exceptional approach for meeting statutory purposes

Ambitious teaching is instruction that helps every student achieve deep learning across content areas. Lampert et al (2016) describes ambitious teaching as instruction that prepares teachers to "do a kind of instruction that most experienced teachers are not yet doing" (p. 226). Ambitious teaching is built on the concept that all students are capable of deep learning as long as professionals establish high expectations and skillfully navigate each instructional situation. Such teaching requires educators to simultaneously lead instructional activities, and listen to, assess, and think critically about student learning to quickly adjust a variety of lesson factors (Kavanaugh et al., 2020). Our program follows McDonald et al.'s (2018) learning cycle that calls on educators to embed core practices into instructional routines that create opportunities for rehearsal of the relational and improvisational work of teaching. Instructional routines help novices work collectively to construct the knowledge and skills necessary to implement a core practice. The learning cycle follows the following four non-sequential quadrants: (1) Introduction includes modeling, case study, video analysis of others; (2) Rehearsal encompasses collaborative lesson planning followed by rehearsal; (3) Classroom Enactment are practice opportunities that take place with a mentor; and (4) Analysis of the Enactment is an investigation of practice by one self and with a mentor (Grossman, Hammerness, et al., 2009). Each field

experience (including the residency) will utilize coaching from faculty, teachers, and peers.

Coaching, specifically feedback and modeling, is associated with improved instruction (Brock et al., 2020) and in past exit interviews from UC's clinical placements, prospective teachers and mentor teachers noted that the coaching they received was integral to their growth.

We commit to working as a professional learning community (PLC) (Hord, 1997). The PLC is a place where we express our commitment, become inquisitive about, and become increasingly knowledgeable of all technologies and strategies that enable us to become better practitioners together. PLCs are (1) <u>Communities</u> – continuing groups that work together with a collective responsibility to improvement, (2) <u>Learning</u> – where improvement is driven by student outcomes and their well-being, where we all learn ourselves out of challenges, and (3) <u>Professional</u> – where our work is guided by experienced collective judgment about what is and what is not effective practice (Hargeaves & Fullan, 2012).

The faculty in UC's Special Education program monitor quality and effectiveness of the program using a variety of data, including prospective teachers' (1) success in field and clinical experiences, (2) passage of licensure exams, (3) performance on the Candidate Preservice Assessment of Student Teaching (CPAST), (4) success with curriculum-based assessments, (5) graduation rates, and (6) employment rates. Recent cohort data from 27 prospective teachers completing UC's program were strong with a 100% program pass rate on Ohio's Special Education licensure test. All prospective teachers participated in the CPAST and at least 90% scored at or above meeting expectations. All of the program's curriculum-based assessments are rated using the InTASC standards and the special education cohort met or exceeded all InTASC standards across all key assessments. Ninety-seven percent of the program's cohort graduated on time, with the preponderance obtaining employment before or immediately after graduation.

A unique and compelling component of *SSHINE* is the practice-based pedagogy guiding the design of coursework and clinical experiences. As noted in the previous section (see Goal 2), *SSHINE* addresses the professional competencies needed to set high expectations for all learners, use HLPs and EBPs, and collaborate with others. Preparing *SSHINE* 's prospective teachers to develop these competencies is central to our preparation practices, because these factors represent the critical knowledge, skills, and beliefs necessary to positively impact K-12 learning.

SSHINE is part of a comprehensive effort to improve teaching and learning and support rigorous academic standards for students

Despite significant advancements related to inclusion in the past three decades, many students with HIN continue to be educated in isolated settings with little engagement or quality instruction (Ruppar et al., 2017). The educational and life outcomes for these students are poor (e.g., McKleskey et al., 2018), suggesting these secluded settings limit students' access to educational experiences that are evidence based, differentiated, or driven by high expectations. 
SSHINE will address this challenge by supporting prospective teachers to develop (a) an understanding of the social ecological approach to disability, (b) knowledge of essential skills that support students in inclusive settings, and (c) specific practices necessary for supporting students in a variety of inclusive settings.

The current educational priorities in Ohio are to increase students' academic achievement, career readiness, and persistence to graduation from high school (ODE, 2010). Historically, students from diverse racial and ethnic backgrounds and students with disabilities have underperformed their White peers without disabilities. Therefore, Ohio has made concerted efforts to support their districts to provide equitable educational opportunities for each student. Ohio has also prioritized teacher quality by focusing on (a) inclusive preparation programs (b)

with field-intensive clinical experiences (c) that are provided in partnership with one or more LEA (ODE, 2019). Ohio also prioritizes teacher quality for practicing teachers through its investment in the Ohio Leadership Advisory Council (OLAC) and the Ohio Improvement Process (OIP), which provide opportunities for continuous improvement for teachers, schools, and districts to meet the needs of all of their students. Collectively, *SSHINE*'s goals, objectives, activities, and outcomes strongly align with Ohio's educational reform activities and priorities and the project team will leverage these statewide preservice and inservice supports.

# QUALITY OF THE PROJECT EVALUATION

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

Evaluation model. WordFarmers Associates (WFA) will use the Context-Input-Processand Product (CIPP) model developed in the 1960s by Daniel Stufflebeam and colleagues, and
updated since that time (Stufflebeam & Zhang, 2017). The model addresses formative evaluation
aims to help the project improve its activities and processes and summative evaluation aims to
ensure that the project meets its short-, mid-, and long-term goals. With this model, context
refers to the conditions that a project faces as it undertakes and completes its work. Inputs
include the assets the project and its partners bring to the work and the planned strategies (e.g.,
products, services, and actions) that operationalize the intervention being implemented. How the
project addresses implementation issues, such as building organizational capacity, maintaining
relationships with partners, and navigating curriculum change demonstrates the responsiveness
of its processes. Formative assessment of these processes supports continuous improvement,
which is critical to ensuring that project activities produce intended outcomes. Product
evaluation in this plan focuses on three program outcomes: (1) prospective teacher satisfaction

with the curriculum, their clinical experiences, and the mentoring they receive as well as mentor teachers' satisfaction with the professional development and other supports they receive from the project; (2) the effectiveness of the program at improving prospective teachers' and mentor teachers' knowledge, skills, and practices; (3) and the impact of the mentoring program, especially during graduates' first year in jobs as special educators.

Note that the evaluation activities focusing on process and products in this model provide evidence for four of the five levels of data that the Kirkpatrick (1998) and Guskey (2000) identify as important sources of evidence. The four are: participant satisfaction, participant learning, organizational support and change, and participant use of new knowledge and skills.

**Evaluation questions.** The *SSHINE* evaluation is positioned to answer the questions listed in Table 2. Evaluation questions are organized by evaluation focus (i.e., context, input, process, product). The table also specifies the major sources of evidence on which answers to the evaluation questions will be based.

**Table 2. Evaluation Questions** 

(EVALUATION FOCUS) Evaluation Questions	Sources of Evidence
(CONTEXT)	Needs assessment
1. What parameters specify the extent and nature of project-	(w/district profiles),
relevant needs in partnering districts?	quarterly inventory of
	needs by the Advisory
	Council, annual inventory
	of needs by stakeholders
(INPUTS)	Prospective teacher
2. What assets do prospective teachers bring with them to the	profiles, staff and partner

	(EVALUATION FOCUS) Evaluation Questions	Sources of Evidence
	cohorts in which they are members?	capacity audit, Advisory
3.	What capacities do project staff and partners bring to the	Council perspectives of
	work?	the quality of the program,
4.	How well aligned is the SSHINE program with quality	review of program
	standards for educator preparation programs?	alignment
(P)	ROCESS)	Observation of curriculum
5.	What strategies do project staff use to navigate the curriculum	meetings, Advisory
	change process?	Council meetings, and
6.	How well do curriculum change strategies work to	annual stakeholder
	accomplish project goals?	meetings; annual survey
7.	What strategies do project staff use to partner with	of project staff; feedback
	participating LEAs and the communities they serve?	surveys with participants
8.	How well do the project's partnering strategies work to meet	in Advisory Council and
	the needs of participating LEAs and their communities?	Stakeholder meetings
(P.	RODUCT)	Annual prospective
9.	To what extent does the project meet GPRA performance	teacher satisfaction survey
	targets? Program-specific targets? Project-specific targets?	(years 2-5), annual mentor
10	. How satisfied are project participants (prospective teachers	teacher satisfaction survey
	and mentor teachers) with program content and supports?	(years 2-5), prospective
11	. How much change in prospective teachers' professional	teacher pre- and post-
	knowledge, skills, and practices is associated with their	assessments, mentor
	participation in the program?	teachers' pre- and post-

(EVALUATION FOCUS) Evaluation Questions	Sources of Evidence
12. How much change in mentor teachers' professional	assessments, mentoring
knowledge, skills, and practices is associated with their	program impact study
participation in the PD provided by the program?	
13. What is the impact of the two-year mentoring program on	
graduates' use of HLPs and EBPs?	

Performance indicators. Performance indicators align with GPRA measures, program-specific measures, and project-specific measures (see Table 3). The Program Alignment Review Crosswalk, (see Table 4) will incorporate indicators that serve as project measures for the three objectives aligned with project goal 1. Prospective teacher learning as documented through the pre- and post-assessments (see Table 4) will serve as project measures for the three objectives aligned with project goal 2; they will assess prospective teachers' growth in (1) holding high expectations for students, (2) using HLPs and EBPs, and (3) teaming to develop individual instructional plans. The extent to which the project meets these indicators will offer a summative picture of its performance. WFA and SDI have developed data-collection systems that automate the ongoing reporting of performance to project leadership.

Table 3. Performance Measures, Measure Type, and Annual Targets

Performance Measure	Measure	Annual
	Туре	Target
Licensure. The percentage of graduates who have attained initial State	TQP	100%
licensure by passing all necessary assessments within one year	Program	
Shortage Area Certification. The percentage of participants fully	TQP	100%
certified in special education within one year of program completion	Program	

One-Year Persistence. The percentage of program participants who	TQP	90%
were enrolled in the previous grant reporting period, did not graduate,	Program	
and persisted in the program in the current grant reporting period		
One-Year Employment Retention. The percentage of program	TQP	90%
completers who were employed for the first time as teachers of record	Program	
in the preceding year by the partner high-need LEA and were retained		
for the current school year.		
Three-Year Employment Retention. The percentage of program	TQP	90%
completers who were employed by the partner high-need LEA for three	Program	
consecutive years after initial employment.		
Efficiency Measure. The federal cost per program completer.	TQP	Est.
	Program	\$55,000
Mentor Teacher Participation. The number of mentor teachers who	Project	10
participate in professional development.		
Professional Learning Community. The unduplicated number of	Project	25
teachers who participate in the professional learning community.		
Faculty Induction Participation. The number of University faculty	Project	2
and staff who participate in the two-year induction supports.		
New Teacher Induction. The percentage of program graduates who	Project	80%
participate in at least 75% of the induction supports offered to them.		
High-Leverage Practices. The percentage of prospective teachers who	Project	90%
effectively use high-leverage practices.		
Evidence-Based Practices. The percentage of prospective teachers	Project	90%
	Į	1

who effectively use EB literacy practices.		
Evidence-Based Practices. The percentage of prospective teachers	Project	90%
who effectively use evidence-based social-emotional practices.		
Individualized Education Programs. The percentage of prospective	Project	100%
teachers who creating goals aligned with students' abilities and needs.		
Collaboration. The percentage of prospective teachers who participate	Project	100%
in interdisciplinary and collaborative teaming activities with others on		
a student's program to promote learning in inclusive settings.		

The extent to which the methods of evaluation are thorough, feasible, and appropriate to the goals, objectives, and outcomes of the proposed project

In collaboration with *SSHINE* leadership, WFA will design data collection instruments keyed to specific evaluation purposes and levels of data. Table 4 lists the evaluation instruments that WFA will develop over the course of the project, cross-referencing them to evaluation purposes and levels of data.

Table 4. Instruments Cross-Referenced with Evaluation Purposes and Levels of Data

Instrument	Purpose	
ORGANIZATIONAL SUPPORT AND CHANGE		
Needs assessment	Context	
Prospective Teacher Profile Protocol	Input	
Capacity Audit Interview Protocol	Input	
Program Alignment Review Crosswalk	Input	
(project measure for objectives 1.1, 1.2, and 1.3)		
Meeting Observation Form	Process	

Annual Survey of Project Staff	Process			
Advisory Council Feedback Survey	Process			
Annual Stakeholder Feedback Survey Process				
PARTICIPANT SATISFACTION				
Prospective Teacher Satisfaction Survey	Product			
Mentor Teacher Satisfaction Survey	Product			
PARTICIPANT LEARNING				
Prospective Teacher Pre- and Post-Assessment (project measures for	Product			
objectives 2.1, 2.2, and 2.3)				
Mentor Teacher Pre-/Post-Assessment	Product			
PARTICIPANT USE OF NEW KNOWLEDGE AND SKILLS				
Prospective Teacher Classroom Observation Rubric	Product			
Prospective Teacher Interview Protocol	Product			

Data collection and analysis. WFA uses online writte surveys and feedback forms (via SurveyMonkey collectors). Observations take place on-site or through an electronic conferencing system (Zoom). For interviews, WFA uses either telephone or Zoom, with verbatim transcription provided either by an evaluation associate or a transcription service (e.g., REV). WFA uses R or SPSS for the analysis of quantitative data, Excel for analysis of simple qualitative data (e.g., comments from Advisory Council participants), and Dedoose for analysis of complex qualitative data (e.g., studies based on interviews). Several WFA associates have experience developing data visualizations, which are especially useful for tracking project performance over time. WFA maintains an IDrive account for file storage. IDrive uses 256-bit AES encryption for file transfer and storage. All stored data is encrypted with a key known only to the account owner.

**Reporting.** WFA will produce written reports summarizing findings from each data-collection effort (e.g., observation of meetings, pre/post assessments). Drafts of the reports will be shared with project leaders and edited as needed to ensure thoroughness and accuracy. WFA will maintain an electronic repository of final reports that project leaders and staff can access.

**Evaluator capacity.** WFA has substantial capacity in program evaluation, curriculum development, instructional design, and research. Program evaluation is WFA's core work. As a third-party evaluator, WFA gathers information about all phases of project activity from planning to implementation to reporting to redesign. Although the emphasis is formative (i.e., ongoing feedback to improve operations and outcomes), WFA also recognizes the importance of demonstrating project impact. Summative evaluations with a focus on impact often lead to referred publications and products for annual and final performance reports.

Ed.D. is lead evaluator at WFA. Her extensive experience in K-12 and higher education provide a basis for her design of evaluation studies (including the instruments used for data collection) as well as her supervision of data collection, analysis, and reporting. A cadre of evaluation associates provide various types of assistance with routine evaluation functions (e.g., observation of events, administration of surveys). Descriptions of WFA's experience and record of accomplishment can be obtained by viewing <a href="http://wordfarmers.com">http://wordfarmers.com</a>

**Timetable of evaluation activities.** Keyed to the timeline of *SSHINE* overall, the evaluation timeline includes both one-time evaluation activities (e.g., initial needs assessment) and iterative evaluation activities (e.g., surveys; observations; interviews conducted quarterly, annually, and biannually by cohort). Table 4 specifies the evaluation timeline and shows which products contribute to formative and summative evaluation purposes.

### **Table 4. Evaluation Timetable**

Year	Purpose	Evaluation Products	Timeline
1	Formative	Needs assessment report	Q2
1	Summative	Finalized set of performance indicators	Q2
1	Formative	School and district profiles	Q3
1	Formative	Advisory Council feedback and needs	Q1, Q2, Q3, Q4
1	Formative	Stakeholder feedback and needs	Q4
1	Contextual	Cohort 1 Prospective teacher profiles	Q4
1	Contextual	Assets audit	Q4
1	Summative	Review of program alignment (project measure)	Q4
1	Formative	Observation of curriculum meetings	Q1, Q2, Q3, Q4
1	Formative	Observation of quarterly Advisory Council meetings	Q1, Q2, Q3, Q4
1	Formative	Observation of annual Stakeholder meeting	Q4
1	Formative	Annual survey of project staff	Q4
2-5	Summative	Cohort Prospective teacher pre-assessment	Q1
2-5	Summative	Cohort Mentor teachers' pre-assessment	Q1
2-5	Formative	Advisory Council feedback and needs	Q1, Q2, Q3, Q4
2-5	Summative	Stakeholder feedback and needs	Q4
2-5	Contextual	Cohort prospective teacher profiles	Q4
2-5	Formative	Observation of curriculum meetings	TBD
2-5	Formative	Observation of quarterly Advisory Council meeting	Q1, Q2, Q3, Q4
2-5	Formative	Observation of annual Stakeholder meeting	Q4
2-5	Formative	Annual survey of project staff	Q4
2-5	Formative	Prospective teacher annual satisfaction survey	Q4

Year	Purpose	Evaluation Products	Timeline
2-5	Formative	Mentor teacher annual satisfaction survey	Q4
2-5	Summative	Mentoring impact study	Q4
3-5	Summative	Cohort post-assessment	Q1
3-5	Summative	Cohort mentor teachers' post-assessment	Q1

#### **ADEQUACY OF RESOURCES**

The adequacy of support, including facilities, equipment, supplies, and other resources

UC. UC's diversity and inclusion efforts are guided by a plan that outlines six key goals with corresponding objectives, recommended strategies, and five-year outcomes (e.g., Impact: Positively transforming our community and society in measurable ways; Innovation: Challenging existing practices and paradigms and discovering the unknown). UC is a public comprehensive system of learning and research that serves a diverse student body with a broad range of interests and goals. UC faculty produce world-renowned scholarship and nurture innovation in and out of the classroom. As well, the faculty, staff, and administration support an educational setting of excellence, opportunity, and service. UC faculty members subscribe to the defining purposes, traditions, and diversity of the UC. Through action, we strive to make the UC a more caring and just community while also demonstrating strong competence to successfully implement SSHINE.

CECH. In 2020, the College of Education, Criminal Justice, and Human Service (CECH) established the IMPACT Accelerator to support faculty who receive external funding. Through the accelerator, faculty have access to personnel to support data management and technology. Financial administrators have experience in grant management and there is a well-established infrastructure to support field placements. UC has a long history of experience in managing successful research and training grants and contracts. As a major research university, UC

manages nearly \$400 million each year and has the appropriate resources to manage this type of grant and has had a strong history of successfully executing personnel development programs (e.g., is PI for a USDoE grant from the Office of English Language Acquisition [2021]).

A&S. The College of Arts and Sciences (A&S) has faculty in three divisions—the natural sciences, social sciences, and humanities— who engage in continuous revision of the educational programs of the college to help prepare prospective teachers for an ever-changing world. The A&S traditions of community engagement, research and activism continue. Faculty researchers continue to tackle regional problems, from water pollution to community health, and students continue to influence curriculum, most evident in the development of new offerings in diversity, equity and inclusion. The traditional liberal arts education—steeped in community engagement, research, and activism—is alive and well in the A&S.

**SDI Center.** The CECH Systems Development & Improvement (SDI) Center at UC fosters the development, implementation, and evaluation of P-20 education, research, and demonstration efforts that improve opportunities to learn for children and youth, their families, and the professionals who support them. At the core of many Center activities is a commitment to advocacy on behalf of all children, as well as partnerships with school districts, professional associations, institutions of higher education, regional providers, and the state that improve conditions and outcomes for students with disabilities and other marginalized groups of learners. Special emphases include supporting (1) systems improvement activities that result in increased equity and improved capacity to meet the educational needs of all learners; (2) technical assistance and dissemination activities - particularly in the area of literacy and (dis)ability - that respond to and address local, regional, state, and national priorities; (3) personnel preparation and continuous learning activities that improve professional capacity to meet effectively a wider

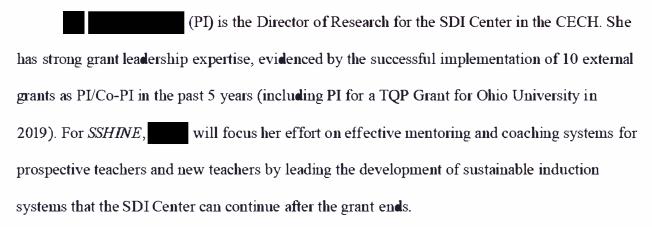
range of student instructional and educational needs; (4) program evaluation activities designed to support program improvement and effectiveness; and (5) other innovative efforts, consistent with the priorities of the Center and of CECH, customized based on client need and request.

The systems change area of work is focused on supporting adult learning across all levels of the education system as a means of increasing the performance of all students, including those with disabilities and other at-risk learners, as part of whole-system reform. The foundational intent of these efforts is to raise expectations and outcomes through redefined leadership, strengthened instruction, and improved learning. Emphasis is placed on sustainability and scalability of change processes and improvement efforts through their alignment to established statewide systems and structures. Examples of initiatives under this operational purpose are the *Ohio Deans Compact on Exceptional Children* and *Addressing Academic and Social-Emotional Learning Needs of Adolescents with Disabilities (AC-SEL)*. Systems-level work specific to the induction program are keenly aligned with this work and present an opportunity for the SDI Center to create a systems-wide sustainable model of induction with Ohio's IHEs and LEAs.

Special Education Program. The School of Education is home to undergraduate and graduate programs led by experienced faculty. Consistently ranked as a top school for teacher preparation, we shape the next generation of world-class educators. As a top-ranked school, we provide best practices and real-world experience in a classroom to prepare knowledgeable, caring, and effective educators. Through education, community awareness and ecologically based service delivery, the focus of special education is to enhance and better the lives of all individuals with disabilities. Some services provided by people in the field of special education include K-12 education, rehabilitation for occupational development and daily independence, community-based case management, disability advocacy, school and individualized consultation

services and various other services related to individuals with disabilities and their families. The School of Education was ranked 48th in the nation for their Special Education program.

**Project investigators.** We provide CVs for SSHINE's key personnel in Appendix D.



(Co-PI) is an Assistant Professor in Special Education who has extensive knowledge and experience in supporting the academic and non-academic development of students with social-emotional and behavioral needs. She has her BCBA-D and has five years' experience as a faculty member. She teaches two courses in the program and will lead the Program Development Team and support the Mentoring Team.

over eight years' experience as a faculty member in special education and second language studies. Her expertise is in personnel development of new teachers – particularly building trust with educators so they openly and honestly communicate their beliefs and dispositions; she then has the unique ability to support educators where they are and help them become more inclusive educators who can meet the needs of all students. In addition to supporting in overall project management, she will utilize her expertise to lead the Mentoring Team, including providing substantial support for the partnership activities to implement the induction program.

(Co-I) is an Associate Professor and a licensed intervention

specialist, specializing in behavior interventions. He has extensive collaboration experience with general education faculty, including developing inclusive programs. His scholarship relates to classroom environment and inclusive/culturally sustaining pedagogies. He was PI for a 325R personnel preparation grant from the Office of Special Education Programs. His recent grant work is associated with the Ohio Dean's Compact and the CEEDAR Center. His role on the grant will be serving on the program development team and leading the Recruitment Team.

(Co-I) is an Associate Professor of Special Education and Director of Advancement and Transition Services in the CECH. Her research includes interventions for individuals with autism spectrum disorder and behavioral support needs, and creating efficient and effective instructional practices across the lifespan. She has a strong history of mentoring prospective teachers. She will co-teach a graduate seminar and teach Autism Spectrum Disorders, Assessment and Curriculum Planning, and Language and Foundations of Literacy. She will also serve on the Program Development Team.

(Co-I) has been faculty in the Department of Psychology in UC's

College of Arts & Sciences since 2014. It is an Associate Professor, a licensed clinical psychologist (Ohio, #7355), and is the Director of the Dyslexia Assessment & Diagnostic

Service Center at UC, a university-based clinic specializing in dyslexia research and assessment.

Treceived specialized postdoctoral training in clinical neuropsychology and cognitive neuroscience. The been a PI, collaborator, or mentor on four grant-funded projects and is well qualified and prepared to carry out the work proposed in this application, to collaborate on program development, implementation, and evaluation in the preparation of special educators.

Collaborating state partners. We have strong support across major state organizations who are in favor of UC acquiring SSHINE. This begins with direct support from the Ohio

Department of Education, Ohio Federation for Teachers, Ohio Education Association and Ohio Leadership Advisory Council. These partners and their collective expertise will both improve the deliverables of the project and also create opportunities for the development of sustainable systems that can serve as models for other institution-LEA partnerships. Our support from these large statewide organizations shows the strong promise this project possesses to make large-scale change across P-20 and post-secondary education across Ohio.

## The extent to which the budget is adequate to support the proposed project

The intended use of grant funds. Over 50% of our requested grant funding will be distributed directly to the 36 prospective teachers for their cost-of-living stipend. All prospective teachers will receive in two payments of Prior to receiving their stipend, prospective teachers must sign with notarization a written service agreement indicating they will (a) complete the Ohio licensure exams required of an intervention specialist, (b) serve as a full-time intervention specialist for a high-need school for at least three years immediately after completing their teacher residency program, and (c) provide written verification of this employment to UC from the LEA's chief administrative officer. If these three conditions are not met, then prospective teachers will acknowledge their written commitment to repay their living stipend (with interest) to UC. We will outline two exemptions to the repayment requirements on the grounds of being called to active duty in the U.S. Armed Forces, unforeseen health incapacitations, or other extraordinary circumstances. UC will use any funds received from repayment to prepare more teachers.

The next largest expense is for the personnel who will participate in the grant activities.

This includes the time and resources needed for the project evaluator to complete the evaluation of the grant's activities. This also includes the salary and benefits of the PI, Co-PIs, and Co-Is

who will oversee the project's implementation.

We will use grant funding to purchase supplies. We will purchase 10 sets of technology (Swivl robot, iPad mini, wireless earphones), which will be used to observe prospective teachers through video conferencing. These technologies allow for UC faculty to observe and mentor prospective teachers from a distance while they are teaching in their mentor teacher's classroom. Using video conferencing software on an iPad housed on a Swivl robot is a recommended practice for distance observations to capture a better video of the teachers' instruction (Coogle et al., in press; Ottley, 2016). Purchasing these technologies in Year 1 (and annual memberships to the secure data cloud each project year) is important to ensure the feasible provision of ongoing performance feedback from faculty and mentors during their master's and induction programs.

We have budgeted monies each year of the grant to reimburse local travel to LEAs for team meetings and stakeholder meetings. We budgeted a small amount of money each year to pay Advisory Council members for their participation. Each year, the PI and two Co-PIs will attend the annual grant funder's meeting. During years 3-5, we have budgeted money for the PI and Co-PIs to attend a professional conference to disseminate information related to *SSHINE's* implementation and outcomes. We have budgeted a nominal amount for copying and printing that is for the direct implementation of grant activities (e.g., handbook for all mentor teachers).

The integration of funds from other related sources. Through the in-kind contributions of faculty and staff at UC and our partners we have achieved 100% match for the 5-year grant (see Budget Narrative). This match is provided by UC and the partnering LEAs and committed across all five years of the grant, which shows the investment of all partners into *SSHINE*. These funds will pay the costs of developing and evaluating the program and resident teacher stipends.

The extent to which costs are reasonable in relation to the objectives, design, and potential

### significance of the proposed project

Through our budget, we have captured the expenses necessary to effectively implement *SSHINE*. We have a strong core team of UC investigators who will each be responsible for a major aspect of the project to ensure that each member has the capacity to stay on time with the activities in the management plan. This also creates a collaborative structure where the PI and Co-PIs support one another to effectively implement the project. The amount of funds provides a meaningful and manageable cohort size for UC and our partners that we can support through their program and into their induction years. A sustainable partnership is vital, and we have allocated a sizeable chunk of money (both direct costs and non-federal match) to facilitate partnership activities among UC, the LEAs, and the community.

## The extent to which UC has resources to operate the project beyond the length of the grant

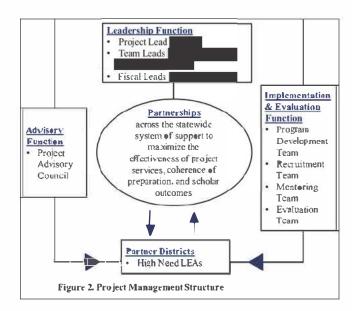
Inter-agency collaborative teaming (described in the Project Design and Management Plan) will begin from the start of *SSHINE*. This ensures that our redesign efforts reflect the perspectives and priorities of each stakeholder and that our efforts are sustainable after the life of the grant. UC and our partners each have invested large amounts of their staff members' time as an in-kind contribution to this project to see the work completed. We are committed to continuing these partner activities after the grant ends to (a) ensure we support our final cohort of prospective teachers through their two years of induction, (b) meet the continued needs of our LEA partners for high-quality special educators, (c) continue the induction model with sustained support from the SDI Center, and (d) replicate this partnership model to meet the needs of related service personnel (e.g., school psychologists) in our partnering districts.

#### **QUALITY OF THE MANAGEMENT PLAN**

Adequacy of the management plan to achieve objectives on time and within budget

We have designed the management plan so that the structures and processes necessary to manage and achieve

SSHINE's objectives on time and within budget are both achievable and sustainable after the grant period. We have desired the project to operate with six core teams who work together across three functions (as



shown in Figure 2). The leadership function will include the Leadership Team comprised of the PI, team leads from the other five teams, and the project's fiscal leads. The Leadership team will oversee the overall progress toward Goals 1 and 2 and their respective three objectives.

The <u>implementation function</u> includes four teams. The **Program Development Team** will lead efforts to create the new special education track and create a year-long residency program (Goal 1; Objectives 1.1 & 1.2). The **Recruitment Team** will create all advertising materials, market the program, and lead efforts related to the selection of high-quality candidates (Goal 1). The **Mentoring Team** will create the systems to support prospective teachers during their preparation program and into their first three years teaching (Goal 1; Objective 1.3). The **Evaluation Team** will lead data collection efforts for both goals. Concerted time will be spent analyzing the achievements of each of our prospective teachers related to performance toward Objectives 2.1, 2.2, and 2.3. The Evaluation Team will share these data with the Leadership Team who will use them to revise program and mentoring products to enhance outcomes.

The <u>advisory function</u> includes the **Project Advisory Council**. The advisory council will meet quarterly to review project progress and deliverables and advise on next steps. This

interdisciplinary representation across partnerships in the state ensures that all appropriate parties have a voice regarding the planning, execution, and evaluation of *SSHINE* activities.

Conduct Planning Activities. The first half of Year 1 is devoted to launching SSHINE and planning for the effective implementation of the first cohort starting Summer 2023. We have summarized the activities that will occur to meet project goals and objectives in Table 5 and gone more in-depth on the major Year 1 activities required for the initial planning and development work to launch cohort 1 effectively and on time in the following list:

- 1. Modify the existing master's degree and licensure program at the university level to develop a new graduate track in the Master's Degree in Special Education that includes a year-long residency and added social-emotional and literacy content. All required courses are already approved through UC and the Ohio Department of Higher Education as part of the current post-baccalaureate program, which includes 15 courses, 110 practicum hours, and a one semester, full-time student teaching experience. The Program Development Team will focus on revising the curriculum and year-long residency through bi-weekly meetings during the first three months of the project. Our timeline to have the new graduate track reviewed by the UC Graduate Academic Committee, Graduate Council, and Provost is during Fall 2022.
- 2. The mentoring team will collaborate with partners to secure K-12 experiences that will be used for early field and year-long residency experiences with students with HIN. Project leaders have extensive relationships with our partners and other high-need districts across Ohio. Many of the special education administrators in southern Ohio are UC graduates who have a commitment to supporting the education of future special educators from UC.
- 3. We will convene the Advisory Council for initial project review in November, 2022. The Advisory Council members represent important stakeholders for improving the outcomes

for students with HIN. Prior to the first meeting, Advisory Council members will receive the document 'Four Simple Questions' from Leading by Convening (Cashman et al., 2014) as well as copies of all relevant documents. With a shared framework of expectations, we will solicit and incorporate feedback on the appropriateness of the proposed activities to achieve each of the competencies and support the overall mission of the program. The Advisory Council will continue to meet quarterly to review *SSHINE's* progress and the impact it is having on the community and K-12 students' learning (Quarterly).

- 4. The Recruitment Team will create and distribute recruitment materials for Cohort 1 using a template that can be easily modified for future cohorts (December 2022). The team will facilitate three information sessions with prospective applicants to share information about *SSHINE* and garner interest in the program (March 2023). They will also review application materials and select the first cohort (April 2023).
- 5. Bi-monthly throughout Year 1, the Leadership Team with support from the evaluators will engage in research and development activities. Through these collaborative efforts, we will (a) identify and create any additional preliminary training needs for prospective teachers and mentor teachers, and (b) align and refine syllabi, assignments, field experiences, and program expectations. The Program Development and Mentoring Teams will use these data to inform their program planning efforts.

# Relevance and Commitment of each Partner for SSHINE's Implementation and Success

As we noted in the resources section and as documented in each agency's letter of support (see Appendix E), we have a strong commitment from UC, LEAs, and statewide associations for the implementation of *SSHINE*. We have achieved 100% match for the 5-year grant that is shared among partners, which shows the investment of all partners into the project.

Each partner is committed to collaboratively implement the needed teacher preparation and induction efforts to strengthen and diversify the teaching workforce. Partnering with multiple LEAs allows the leadership team to learn from multiple perspectives and use the collective wisdom to improve preparation and practice.

Five small groups will support the implementation of this project including the

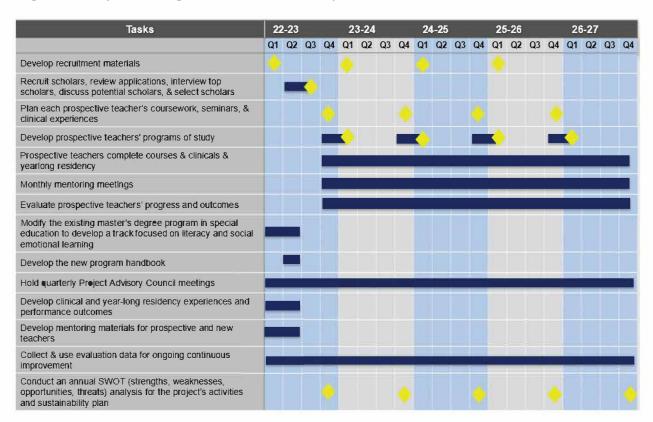
Leadership team and Project Advisory Council (led by
the Program Development

team (lead by
These groups will include representation from partners to include their input into the

design and development of products from the beginning of the project and throughout. A

summary of project activities and their respective timelines are shown in Figure 3.

Figure 3. Project Management Timeline of *Project SSHINE* Activities



#### REFERENCES

- Ball, D., & Forzani, F. (2011). Building a common core for learning to teach: And connecting professional learning to practice. *American Educator*, *35*(2), 17–21, 38-39.
- Brock, M. E., Barczak, M. A., & Dueker, S. A. (2020). Effects of delayed video-based feedback and observing feedback on paraprofessional implementation of evidence-based practices for students with severe disabilities. *Focus on Autism and Other Developmental Disabilities*.
- Brock, M. E., Dynia, J. M., Dueker, S. A., & Barczak, M. A. (2019). Teacher-reported priorities and practices for students with autism: Characterizing the research-to-practice gap. *Focus on Autism and Other Developmental Disabilities*, 35, 67–78.
- Brownell, M. T., Benedict, A. E., Leko, M. M., Peyton, D., Pua, D., & Richards-Tutor, C.(2019).

  A continuum of pedagogies for preparing teachers to use high leverage practices.

  Remedial and Special Education, 40(6), 338–355.
- Bush, K. L., & Tassé, M. J. (2017). Employment and choice-making for adults with intellectual disability, autism, and down syndrome. *Research in Developmental Disabilities*, 65, 23-34.
- Carter, E. W., Carlton, M. E., & Travers, H. E. (2020). Seeing strengths: Young adults and their siblings with autism or intellectual disability. *Journal of Applied Research in Intellectual Disabilities*, *33*(3), 574-583.
- Cashman, J., Linehan, P., Purcell, L., Rosser, M., Schultz, S., & Skalski, S. (2014). Leading by convening: A blueprint for authentic engagement. Alexandria, VA: National Association of State Directors of Special Education.
- Coogle, C. G., Ottley, J. R., Storie, S., Rahn, N. L., & Burt, A. (in press). Performance-based

- feedback to enhance pre-service teachers' practice and preschool children's expressive communication. *Journal of Teacher Education*.
- Cross Francis, D., Liu, J., Bharaj, P.K., & Eker, A. (2019). "Integrating Social-emotional and Academic Development in Teachers' Approaches to Educating Students," *Policy Insights from the Behavioral and Brain Sciences*, 6(2), 138–146;
- Fleury, V. P., Hedges, S., Hume, K., Browder, D. M., Thompson, J. L., Fallin, K., ... & Vaughn, S. (2014). Addressing the academic needs of adolescents with autism spectrum disorder in secondary education. *Remedial and Special Education*, *35*(2), 68-79.
- Grossman, P., Hammerness, K., & McDonald, M. (2009). Redefining teaching: Reimagining teacher education. *Teachers and Teaching: Theory and Practice*, *15*, 273-290.
- Hord, S. M. (1€97). Professional learning communities: Communities of continuous inquiry and improvement. Austin, TX: Southwest Educational Development Laboratory.
- Kleinert, J., Kearns, J., Liu, K. K., Thurlow, M. L. & Lazarus, S. S. (2019). *Communication competence in the inclusive setting: A review of the literature* (TIES Center Report 103). Minneapolis, MN: University of Minnesota, The TIES Center.
- Kraemer, B. R., Odom, S. L., Tomaszewski, B., Hall, L. J., Dawalt, L., Hume, K. A., ... Brum,C. (2020). Quality of high school programs for students with autism spectrumdisorder. *Autism*, 24(3), 707–717.
- Kurth, J. A., Born, K., & Love, H. (2016). Ecobehavioral characteristics of self-contained high school classrooms for students with severe cognitive disability. *Research and Practice* for Persons with Severe Disabilities, 41(4), 227-243.
- Lampert, M., Franke, M. L., Kazemi, E., Ghousseini, H., Turrou, A. C., Beasley, H., ... Crowe, K. (2013). Keeping It Complex: Using Rehearsals to Support Novice Teacher Learning

- of Ambitious Teaching. Journal of Teacher Education, 64(3), 226-243.
- Lee, H., & Morningstar, M. E. (2016). Exploring Predictors of Community Participation Among Young Adults with Severe Disabilities. *Research and Practice for Persons with Severe Disabilities*, 44(3), 186–199. https://doi.org/10.1177/1540796919863650
- Leko, M., Brownell, M., Sindelar, P., & Kiely, M. (2015). Envisioning the future of special education personnel preparation in a standards-based era. *Exceptional Children*, 82, 25-43.
- McDonald, M., Kazemi, E., & Kavanaugh, S. (2016). Core practices and pedagogies of teacher education: A call for a common language and collective activity. *Journal of Teacher Education*, 64, 378-386.
- McLeskey, J., Barringer, M. D., Billingsley, B., Brownell, M., Jackson, D., Kennedy, M., & Ziegler, D. (2017). *High-leverage practices in special education*. Arlington, VA: Council for Exceptional Children & CEEDAR Center.
- McLeskey, J., & Billingsley, B. (2008). How does the quality and stability of the teaching force influence the research-to-practice gap? *Remedial and Special Education*, 29(5), 293-305.
- McLeskey, J. (2019). Reflections on future directions for including students with severe disabilities. *Research and Practice for Persons with Severe Disabilities*, 45(1), 45-50.
- Ohio Coalition for the Education of Children with Disabilities (2019). *Ohio Special Education*Profile 2018. Marion, Ohio. Retrieved from <a href="https://www.ocecd.org">www.ocecd.org</a>
- Quirk, C., Ryndak, D. L., & Taub, D. (2017). Research and Evidence-Based Practices to

  Promote Membership and Learning in General Education for Students with Extensive

  Support Needs. *Inclusion*, *5*(2), 94–109.
- Riccomini, P. J., Morano, S., & Hughes, C. A. (2017). Big ideas in special education: Specially

- designed instruction, high-leverage practices, explicit instruction, and intensive instruction. *TEACHING Exceptional Children*, *50*, 20–27.
- Ruppar, A. L., Allcock, H., & Gonsier-Gerdin, J. (2017). Ecological factors affecting access to general education content and contexts for students with significant disabilities. *Remedial and Special Education*, 38, 53–63.
- Ruppar, A. L., Neeper, L. S., & Dalsen, J. (2016). Special Education Teachers' Perceptions of Preparedness to Teach Students With Severe Disabilities. *Research and Practice for Persons with Severe Disabilities*, 41(4), 273–286.
- Saunders, A. F., Wakeman, S., Reyes, E., Thurlow, M. L., & Vandercook, T. (2020)

  Instructional practices for students with the most significant disabilities in inclusive settings: A review of the literature (TIES Center Report 104). Minneapolis, MN:

  University of Minnesota, The TIES Center.
- Smith, M., M. (2019). Innovations for supporting communication: Opportunities and challenges for people with complex communication needs. *Folia Phoniatrica Et Logopaedica*, 71(4), 156–167.
- U.S. Commission on Civil Rights. (2009). Minorities in special education. Washington, D.C.
- Wei, X., Lenz, K. B., & Blackorby, J. (2013). Math growth trajectories of students with disabilities: Disability category, gender, racial, and socioeconomic status differences from ages 7 to 17. *Remedial and Special Education*, 34(3), 154-165.
- Zhang, D., Wang, Q., Losinski, M., & Katsiyannis, A. (2013). An Examination of Preservice Teachers' Intentions to Pursue Careers in Special Education. *Journal of Teacher Education*, 65, 156-171.