

Collaborative Grow Your Own Partnerships to Address Persistent Teacher Shortages and Remove Barriers to Becoming a Special Educator

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ABSTRACT

This article provides an overview of two innovative “Grow your Own” (GYO) pathways to teacher preparation. These pathways include authentic partnerships between an institute of higher education (IHE) and school districts, who actively plan and work together to recruit, prepare, and retain special educators. These pathways specifically focus on addressing teacher shortages, increasing the diversity of the educator workforce, and preparing educators through a social justice lens. The IHE and school district collaboration remove siloed practices to reach potential candidates who have a passion for teaching and social justice but who have previously lacked a pathway to enter the profession.

KEYWORDS

Grow your own, residency, partnerships, teacher shortages, barriers, social justice, special education

The devastating health and economic impacts of the pandemic have contributed to exacerbating a persistent and national educator shortage of special educators and teachers of color (García et al., 2022). Trying to stay connected to students during distance learning and helping students understand the national social justice uprisings from George Floyd’s murder have exhausted some educators and caused many to exit the field (Carr, 2022). Now, more than ever, collaborative teacher preparation partnership models are needed to create innovative pathways to becoming an educator in order to address these critical shortages and the turnover within the educator workforce.

In this article, we describe how an institution of higher education (IHE) and several school districts have actively worked together to create Grow Your Own (GYO) pathways to teacher preparation. Creating true partnerships and collaborating with school partners, our IHE has established two GYO models designed to recruit, prepare, and retain special educators in order to address the teacher shortage and increase the diversity of the educator workforce (MN PELSB, 2021) with a focus on social justice.

Critical Areas of Shortages

Special education teacher shortages have been a long-standing issue for school districts and they have also struggled to recruit and retain teachers from diverse communities (Will, 2022). Similar to most states across our nation, our state is challenged by a lack of diversity in our educator workforce and significant teacher shortages caused, in part, by fewer individuals going into education and teachers leaving the profession, especially in special education (MN PELSB, 2021; Sutcher et al., 2016).

Contributing to teacher shortages are retention challenges with educators exiting the profession and not returning to teach at their schools. A National Education Association survey found that 32 percent of respondents plan to leave the profession earlier than they anticipated with the numbers higher among members of color

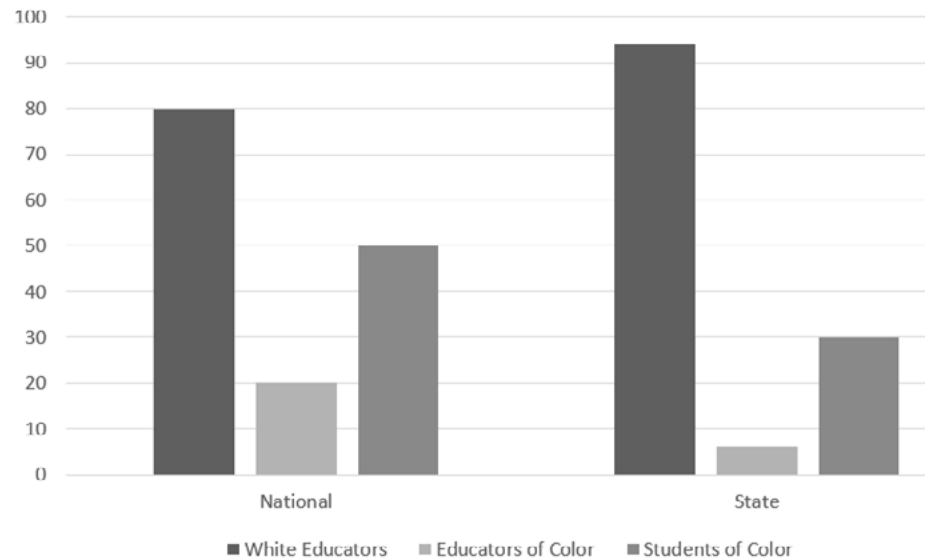
(Busser, 2021). In another national survey, nearly 25 percent of teachers reported they may leave their job, with teacher turnover found to be highest (around 12 to 14 percent) in urban districts, high-poverty districts, and districts serving predominantly students of color (Diliberti & Schwartz, 2023). In some urban schools, teacher turnover tops 20 percent annually (National Commission on Teaching and America's Future, 2007). In Minnesota, nearly a third of new teachers leave teaching within the first five years in the profession (MN PELSB, 2021).

Lack of Diversity in the Educator Workforce

According to the National Center for Education Statistics (2020), almost 80 percent of the existing teaching force is white, which does not reflect the demographics of the increasingly diverse student population (Chen, 2022). According to the Center for American Progress, U.S. schools are now made up of 50 percent of students of color, while less than 20 percent of teachers are of color (Ahmad & Boser, 2014). In Minnesota, a report about the supply and demand of teachers notes that less than six percent of teachers are teachers of color (MN PELSB, 2021), while nearly 30 percent of the state's students are of color. Figure 1 illustrates the disproportionality between the percentage of educators and students of color at the national and Minnesota state levels.

Like many states, Minnesota has a significant lack of diversity for licensed teachers (MN PELSB, 2021). There is also a long history of racial segregation and poor educational outcomes for students of color (Beaumont, 2020; Waxman, 2020). This non-diverse teaching corps is a consistent barrier to producing racially equitable education outcomes for students and almost every state has a large teacher-student

FIGURE 1: Percentage of Teachers and Students of Color: National and State Data



(Center for American Progress, Ahmad & Boser, 2014; Minnesota Professional Educator Licensing Standards Board, 2021)

diversity mismatch, which provides few opportunities for some students to benefit from having educators who look like them (Sanchez, 2015). Research has shown benefits, particularly for students of color, when students are matched with an educator of the same race. One example is low-income, Black students who have at least one Black teacher in elementary school are less likely to drop out of high school (Gershenson et al., 2018).

GROW YOUR OWN PATHWAYS

To address these shortages and increase diversity within the workforce, many states, districts, and IHEs have turned to GYO district-serving pathways to teaching (Wood, 2022). New America defines GYO as partnerships between educator preparation programs (e.g., IHEs), school districts, and community organizations to recruit and prepare local community members to enter the teaching profession and teach in their communities (Garcia & Muñiz, 2019). GYO

models are teacher preparation programs molded after the motto, “From the community for the community” (New America, 2021). GYO models address the misalignment between teacher preparation output and local district needs through strategies to recruit and retain well-prepared and diverse candidates in schools. GYO programs honor the belief that recruiting and preparing teachers from the local community will increase retention and diversity and equip schools with well-prepared teachers who are knowledgeable about the needs of students and families in the community (Garcia & Muñiz, 2019). Recruiting locally means teacher demographics are more likely to mirror student demographics (Wood, 2022). In addition to schools benefitting from GYO models, IHEs benefit through shared recruitment, increased enrollment, and improved teacher preparation programs to meet the needs of the local community.

GYO models typically provide pathways to placement into teaching positions with wrap-around services to sup-

TABLE 1: Demographic Sampling

Year	2016	2017	2018	2019	2020	2021	2022
# Started residency	22	47	42	38	47	52	52
% Identify as BIPOC	55%	65%	55%	64%	62%	52%	48%
% Bi or Multi-lingual	20%	37%	23%	28%	34%	17%	22%
# Completed residency	22	43	37	35	43	51	47
# Hired by school partner	22	40	36	33	42	42	In progress

port recruitment and retention including critical induction support (Garcia et al., 2022). While much variation exists in program design and delivery, states and districts are unified in the importance of collaborative partnerships between school districts and teacher preparation programs with a focus on comprehensive job-embedded training to prepare the teachers needed for this moment and for the future. GYO models afford the opportunity to customize a preparation program to the district context while meeting state requirements for a teaching license (Garcia et al., 2022).

Two Grow Your Own Pathways

To meet the needs of our communities and partners, our IHE developed two related, yet separate, GYO district-serving pathway models to meet the unique needs and assets of our partner schools. In partnership, we designed our GYO programs to provide a smooth pathway from preparation to teaching, while simultaneously reducing significant barriers to becoming educators. Abandoning siloed approaches, both of our GYO models work collaboratively with school partners to recruit, prepare, and retain socially-just special educators in specific teaching contexts. Our two GYO models are our *Teacher Residency* and *Work and Learn* models.

Teacher Residency Model

Teacher residency models have become widely recognized as effec-

tive teacher pathways and preparation models with research suggesting that this model holds promise for recruiting diverse individuals (Podolsky et al., 2019). Leveraged by federal funding, teacher residencies have grown over the last decade in response to critical shortages in hard-to-staff urban and rural regional areas and subject areas, such as special education (National Center for Teacher Residencies, 2020; Podolsky et al., 2019). The federal government has authorized money to support and develop teacher preparation programs and residencies, including the Office of Elementary and Secondary Education's Teacher Quality Partnership (TQP) and Supporting Effective Educator Development (SEED) programs. Additionally, some states fund statewide programs to help local school districts recruit and prepare teachers (Muniz, 2020). Since 2016, our IHE has collaboratively partnered with local schools on our GYO pathways and prepared hundreds of teachers with over 50 percent from traditionally underrepresented communities in our Teacher Residency model. Table 1 includes demographic information from our GYO residency pathways that illustrates we are meeting our goal of diversifying the teacher workforce.

<Insert Table 1>

A residency is a period of training in an area of specialty (Merriam-Webster, n.d.). In the medical field, residents provide care to patients while being supervised by experienced doctors. In the

field of education, residents are pre-service educators observing and teaching students under the supervision of an experienced mentor (Chu & Wang, 2022). Similar to a medical residency, teacher residency models pair theory and practice, with pre-service educators coteaching alongside a licensed teacher while taking coursework on pedagogy (Marshall & Scott, 2015). Our residency model provides preservice educators with a full academic year apprenticeship or practice-based student teaching experience alongside an experienced and trained mentor teacher in their classroom before they become licensed teachers of record. Over the course of the academic year, preservice educators gradually take more and more responsibility for teaching within the classroom. Extended preservice classroom experience with students has been linked to teacher retention (Udesky, 2015). In our model, residents receive an entire academic year (e.g., 1200 hours) of pre-service field or clinical experience compared to our state-required 12 weeks (e.g., 400-600 hours) (Minnesota Administrative Rule, 2021). This year-long experience and our focus on social justice are key distinctions and serve as the selling points of the residency model to potential candidates. Potential educators recognize the benefits of the intensive clinically rich learning provided by the year-long residency (Garza & Werner, 2014) and the focus on social justice. In some residency models, including our

FIGURE 2: “PREPARE” Project Components

model, the pre-service educator receives a living wage stipend while they are learning to become a teacher.

Work and Learn Model

After implementing our teacher residency model for several years, we created an adapted GYO model to meet the increasing and urgent demand of districts that did not have budgets to support providing a living wage to an additional adult in a classroom. Our second GYO pathway is our Work and Learn model, which is a career pathway that adapts our residency model and curriculum to meet the local district context. In this model, the pre-service educator serves in a paid paraprofessional or provisional teacher role. Each state has different license structures for educators. Typically, a provisional teaching license comes with special conditions and is available for an individual with a bachelor’s degree. In some states, a high school diploma may suffice. These licenses are typically granted due to an emergency teacher shortage in a specific area for a short period of time (National Council on Teacher Quality, 2021). Typically, this individual is noncertified or not fully licensed, licensed for a limited duration, or licensed in a different area from which they are preparing. Research is mixed on career path preparation programs’ outcomes but at least one The Pathways to Teaching Careers Program, which supported paraprofessionals and noncertified teachers to become fully certified teachers was associated with the recruitment and retention of diverse teachers (Clewell & Villegas, 2001). In this program, 74 percent of the recruited

paraprofessionals were from a traditionally underrepresented background and 75 percent of the participants completed the program compared to a 60 percent national completion rate in traditional teacher education programs (Podolsky et al., 2019).

FRAMEWORK AND PROJECT COMPONENTS

Our GYO models utilize a structural framework to organize project components and our work. Figure 2 provides an overview of our “PREPARE” framework. PREPARE includes Partner, Educate, Practice, Advance, Retain, and Evaluate. Table 2 provides a side-by-side comparison of the features of our two GYO models.

School District Partnerships and Purposes

In our GYO teacher preparation models, we leverage our partnerships with key school districts in the region to address and combat teacher shortages. Our partnerships include school districts in the Twin Cities metro area (e.g., Saint Paul Public Schools, Minneapolis Public Schools, Anoka-Hennepin), a consortium of charter schools, and intermediate school districts that serve a number of member school districts. These districts include both urban and rural settings.

Partnerships are not a new thing in teacher preparation and are now mandated by some accrediting bodies (e.g., Council for the Accreditation of Educator Preparation, 2015; Minnesota Administrative Rule, 2021); however, partnerships may vary from vague agreements to more collaborative part-

nerships. We have created partnerships that range from collaborating on specific activities to shared decision-making about all aspects of the teacher preparation model. Matching the organizational structure and processes to the nature of the partnership’s goals and the partners’ motivations, capacities, levels of desired interdependence, and cultural compatibility is critical (Hora & Millar, 2011). With our partners, we address a significant and urgent need for diverse special educators with our collective goals focused on addressing teacher shortages, preparing socially-just educators, increasing teachers of color in critical areas of need, creating a program inclusive of preservice educators’ lived experiences, and preparing high-quality teachers who represent the communities they will serve.

We acknowledge and affirm the lived experiences of our teacher candidates through a variety of strategies. For example, the IHE residency coordinator and dean conducted course audits to assess the representation of authors and inclusion of criticality across course assignments, materials, and learning objectives. Based on this audit, our IHE revised our teacher preparation program materials to ensure the representation of diverse scholars and replaced some assignments so that candidates had more opportunities to examine power, equity, and anti-oppression in education and society. Additionally, course instructors participate in professional development on these issues, and we intentionally hire instructors who represent traditionally underrepresented communities. In addition, we reduce racial isolation and provide connections for students to

TABLE 2: Grow Your Own Model Details

GROW YOUR OWN MODELS (LICENSE + MASTER'S DEGREE)		
Model	Teacher Residency	Work and Learn
Vetting Process	Interview - Rigorous 2 step interview process conducted by district with IHE participation	Interview - District Human Resources and Administration interview and provide a letter of recommendation
Registration	IHE registers pre-service educators for cohort classes	
Start Date	Cohorts start coursework each summer	
Duration	15-months	24-30 months
Credits	4 to 10 credits per semester	4 to 6 credits per semester
Total Credits	34 credits (Compared to 43 credits in our traditional programming)	
Cohort Model	Learn with peers from same school district	Learn with peers from multiple school districts
Classroom Experience	Work at a partner school as a resident in a mentor teacher's classroom	Work at a partner school as a teacher or paraprofessional supported by a mentor teacher
Paid	Receive a living-wage stipend from the school district	Receive equivalent teacher or paraprofessional salary from the school district
Course Format	District preference: Face-to-face and hybrid online	District preference: Combination face-to-face and online or all online synchronously
Focus	Social Justice	
Course Location	Courses on the university campus or school district site	Courses online or school district site
Time of Class	Day classes	Evening classes
Class Schedule	1 full day of coursework aligned to experiences with responsibilities gradually increased as competency demonstrated	2 courses each week Hybrid Option: 1 face-to-face course at district and 1 online course weekly Online Option: 2 online courses weekly
Mentor	Receive mentoring, coaching, and evaluations from a mentor teacher	
Supervision	Receive coaching and evaluations from a university supervisor	
Experiences	Preservice educators receive 1200 hours of field experience	
Clinical Experiences	During academic year 1, complete a year-long experience spending 4 days a week in the classroom teaching alongside an experienced mentor teacher	During academic year 2, complete a year-long experience spending 5 days a week in the classroom
Advising	Advising occurs in weekly seminars + 1:1 advising sessions each semester	Built-in group advising sessions occur every semester
License	Complete the teacher license preparation program in mild to moderate cross-categorical special education	
Degree	Complete graduate-level master's degree (last summer of the program)	
Commitment	3-year commitment to teach in the district	2-year commitment to teach in the district

explore and discuss their lived experiences by pairing each candidate with a graduate who is in the same license area and mirrors a similar sociocultural identity. Some of our programs include affinity groups for graduates and current candidates that meet regularly.

Critical to our success is the partnership with schools. Hora and Millar (2011) identified three different partnership structures: limited, coordinated, and collaborative. In a limited partnership, one organization maintains decision-making authority and the other serves in a consultancy type of role. In a coordinated partnership, there is some shared decision-making with each organization bringing different resources to achieve the goals, but this model lacks centralized governance. In a collaborative partnership, there is a high level of interdependence and collective governance. Our work requires a coordinated partnership moving towards a collaborative partnership. As we work together with our established partners, we have grown to understand and appreciate one another's areas of expertise and build trust. Our GYO work requires a high level of interdependence, boundary-crossing, and collective governance with decision-making carried out by our IHE and district partners, which moves the partnership from coordinated to collaborative.

Partnership Strategies to Reduce Barriers

Our GYO teacher preparation models are designed to meet schools' needs while reducing historical and enduring barriers to entry for teachers. Among the many barriers that may contribute to individuals entering the teaching profession, our GYO models focus on four areas and our IHE and partner schools work collaboratively to remove barriers, such as (a) siloed recruitment and selection, (b) effective preparation and time constraints, (c) financial debt accumulation, and (d) retention during

and after preparation.

With research signaling that the educator workforce is diminishing, teacher preparation programs need to use innovative ways to attract candidates to ensure that schools have highly qualified teachers (Marshall & Scott, 2015). Some of the strategies that help us move from a coordinated to a collaborative partnership include shared recruitment and selection efforts. Our collaborative recruitment and selection plan includes our IHE and district partners working together with school district human resource and university admission personnel to recruit, screen, interview, and select qualified candidates.

Recruit and Screen

With both of our GYO models, we engage in collaborative recruitment with our school partners, with schools taking the lead role in these efforts. During recruitment, both our IHE and districts contribute financially and representatives from each contribute to the work. We work with our school partners to recruit the teachers the districts know they will need (Podolsky et al., 2019). To accomplish this, our partner's administrators and human resources personnel gather data on current hiring needs and forecast needs three to five years in the future. We collaboratively plan recruitment strategies, including specific messaging to current district leaders, paraprofessionals, other school personnel, community members, and a broader audience. This can include flyers, presentations, commercials, videos, social media, and website information on the university and school district platforms. Collaboratively, our IHE and school partners offer in-person and online information sessions and visit with schools, administrators, and other district staff to recruit educators. School district staff and university faculty and staff help with one-on-one connections with interested individuals throughout the application process.

During recruitment, we collaboratively focus on attracting a diverse pool of candidates from within our partner school's communities. Several studies support GYO models having the potential to recruit more racially and linguistically diverse teachers and career changers into teaching (Chu & Wang, 2022). According to the National Center for Teacher Residencies (2020), 57 percent of the candidates in their partner network identify as Black, Indigenous, People Of Color (BIPOC). Our residency model mirrors this data with more than half of our residents in our Saint Paul Public Schools and Minneapolis Public Schools partnerships identifying as BIPOC and 25 percent as multilingual. One of the ways our GYO models recruit diverse candidates is through targeted recruitment strategies for culturally and racially diverse candidates, which includes going out to community events and community locations (e.g., mosques, coffee shops, and barbershops) and advertising on radio stations, newspapers, and podcasts that cater to a more diverse audience.

Once potential candidates apply, we screen their qualifications. Our program is a graduate-level program that requires candidates to have completed a bachelor's degree. For a candidate to be accepted into a Work and Learn cohort, human resources must vet the candidate and an administrator must provide a letter of recommendation. A significant benefit of recruiting together is potential candidates may already have a relationship with district personnel and are more likely to trust the school district's messaging compared to staff from IHE.

Interview and Select

Our selection process includes two parallel steps, which include (1) the interview and selection process (Urban Teacher Residency United [UTRT], 2014; KIPP DC, 2013; Waddell & Ukpokodu, 2012) and (2) the university application process. To officially be part of a GYO cohort requires individuals

TABLE 3: Interview Process

PHASE	INTERVIEW PROCESS
Writing Sample	The candidate submits a writing sample, which is screened for admission into the university.
Interview	The candidate answers questions during a 30-minute individual interview.
Presentation	The candidate presents a mini lesson on teaching and learning as it relates to social identity or a personal racial and cultural autobiography.
Group Discussion	The candidate studies provided material (article or book chapter) and then participates in a group discussion focused on culturally and linguistically sustaining teaching.

to be vetted by our partner school and admitted into the university's graduate programming. While the candidates are going through the interview and selection process with the district, they simultaneously complete the university admission process. We invite qualified candidates to participate in a robust interview and selection process that includes specific activities to demonstrate dispositions and competencies related to commitment and mindset toward diversity, equity, inclusion, and social justice. In our residency model, the interviews are a collaborative endeavor between the district and university and include district leaders, faculty, mentor teachers, and graduates. District personnel and IHE representatives serve on assessment panels with detailed scoring rubrics for each phase of the interview process. In addition to participating in a traditional individual interview, some of our programs require candidates to participate in additional activities that simulate graduate-level work, such as those outlined in Table 3. These activities are required based on our school district's preferences (UTRU, 2014). Once interviews are completed, the university and district GYO coordinators review the scoring rubrics and select candidates for a cohort. Both the IHE and partners participate in the interview process to ensure the candidate is a good fit for the school and demonstrates the skills necessary to complete graduate

programming.

Partnership Strategies to Prepare Candidates through Education and Practice

The quality of preparation is critically important for preservice teachers and leads to retention (Darling-Hammond et al., 2002; DeAngelis et al., 2013). However, traditional teacher preparation programs have been critiqued for their focus on theory with limited and disconnected opportunities for aligned field and clinical experiences (Podolsky et al., 2019). These critiques, along with the significant shortages, led to the creation of how our GYO models provide coursework and practice-based experiences. In the GYO models, IHE and district partners share responsibility and collaborate to prepare teacher candidates to work in schools. In this section, we discuss the specific partnership strategies we have applied to prepare preservice teachers. These include (a) providing year-long clinical experiences, (b) targeting priorities and practices, (c) aligning coursework and clinical experiences, (d) removing siloed course preparation, (e) hiring knowledgeable university supervisors, (f) choosing effective mentor teachers, and (g) providing professional development.

Provide Year-long Clinical Experiences

A Schools and Staffing Survey found that preservice educators who had a

semester or more of teaching practice prior to employment were three times less likely to leave teaching after a year compared to those who had no teaching practice at all (Ingersoll et al., 2014). As mentioned previously, our state requires a minimum of 12 continuous weeks for student teaching (Minnesota Administrative Rule, 2021). Both of our GYO models take that a step further and provide substantial opportunities for longer, richer, fieldwork experiences through a full academic year of clinical. In our GYO models, we align coursework with the clinical experiences as our preservice educators simultaneously complete license-specific coursework that is tightly integrated with paid experience in the field. Once the academic school year starts, candidates in our residency model teach alongside a mentor teacher four days per week. In our Work and Learn model, the paraprofessionals and provisional teachers teach five days per week and are supported by an experienced educator. Given the value of the year-long experience reported not only by preservice educators, but also by mentors, and district administrators (Beck, 2016; Chu & Wang, 2022; Gardiner, 2011; Garza & Werner, 2014), it is important to address the specific components that make this year-long experience effective.

Target Priorities and Practices

Elements of exemplary teacher education programs include a common, clear

TABLE 4: Crosswalk Example

IHE Evaluation	District Evaluation	CEC HLP Practices	Teaching Works	Danielson Clusters
Aligns learning targets to standards and student data and uses information to plan Uses content, resources, and student strengths and knowledge to design effective instruction Plans for assessment and differentiation	Plans units and lessons effectively	HLP 11: Identify and prioritize long- and short-term learning goals HLP 12: Systematically design instruction toward a specific learning goal	Designs single lessons and sequences of lessons	Clarity of instructional purpose and accuracy of instructional content
Uses varied assessment techniques to advance student learning	Uses formative assessment to inform instruction	HLP 6: Uses assessment data, analyze instructional practices, and make necessary adjustments that improve student outcomes	Checks student understanding during and at the conclusion of lessons Selects and designs formal assessments of student learning	Successful Learning by All Students
Facilitates activities and discussions to promote high cognitive engagement	Uses pacing and structure Uses instructional strategies to engage students	HLP 13: Adapt curriculum tasks and materials for specific learning goals HLP 18: Uses strategies to promote active student engagement	Explains and models content, practices, and strategies Leads a group discussion	Clarity of instructional purpose and accuracy of instructional content
Creates a respectful classroom culture of trust, safety, and high expectations Establishes and maintains clear expectations for classroom and behavior management	Creates a safe learning environment Establishes and maintains classroom routines and procedures Monitors and provides feedback on student behavior	HLP 7: Establish a consistent, organized, and respectful learning environment HLP 8 & 22: Provides positive and constructive feedback to guide students' learning and behavior	Builds respectful relationships with students Implements norms and routines for classroom discourse and work implementing	A safe, respectful, supportive, and challenging classroom environment Classroom management

vision of good teaching that is embedded in coursework and clinical experiences (Darling-Hammond, 2006). One of the first steps we take in our GYO models is to bring together our IHE and school partner stakeholders to discuss this vision by reviewing teacher evaluation tools, state license requirements accreditation standards, and professional organizations' recommendations (i.e., CEC). Collaboratively, we create a crosswalk

to examine similarities and differences across all these requirements including high-leverage practices (HLP, McLeskey et al., 2017), which describe the fundamentals of teaching, and the Framework for Teaching Clusters (Danielson, 2007) that include the skills that promote high levels of student performance. Then, together, we map out the scope and sequence of these targeted practices and embed these, along with

evidence-based practices (EBP) and socioculturally and linguistically sustaining practices, across the one to two years of the program and determine alignment across coursework, clinical experience expectations, and professional development (i.e., instructor, university supervisor, and mentor teacher). We review this each year with stakeholders to adjust and revise the program. Table 4 includes an example of part of a crosswalk.

Align Coursework and Clinical Experiences

A key component of our GYO models is the integration between coursework and clinical experience. In our model, teacher candidates take coursework while student teaching. Consequently, it's critically important to align classroom teaching with relevant coursework and leverage the mentor teachers' expertise and responsibility as teacher educators (Klein et al., 2015). This requires collaboration across the coursework instructors, university supervisors, and mentor teachers. Once we have the scope and sequence of the key practices, we plan for the alignment of coursework and clinical experiences. We engage in this collaboration through quarterly instructor retreats, monthly mentor teacher professional development, and monthly university supervisor meetings. In addition, we use a learning cycle as an organizing framework to outline shared responsibilities in the development and growth of the resident.

Remove Siloed Course Preparation

In a traditional model, most of the learning in teacher education programs occurs in coursework that is largely divorced from practice in schools (McLeskey et al., 2017). Our GYO model requires instructors to reconsider siloed preparation and examine connections from their course to other courses as well as their application to actual classrooms and students. We require faculty to talk with one another and learn from our school district colleagues. One way we accomplish this is through quarterly faculty retreats.

Importantly, we also include experienced teachers and leaders from the district as adjuncts to teach or coteach courses with university faculty. These teaching models allow us to focus on the district's priorities and share the responsibility of preparing teachers. In

our GYO models, having the district perspective within the university course helps to provide connections between what candidates are learning in the coursework and actual application in the settings in which they are teaching. Utilizing educators and administrators from our partner schools to serve as adjunct professors and teach courses benefits our teacher preparation program as we can more closely align our curriculum with the needs and strengths of districts and prepare preservice educators for the context in which they will work, leading to increased retention. For example, in one of our pathways, 50 percent of the courses are taught by or co-taught with district teachers and leaders.

Hire Knowledgeable University Supervisors

Our university supervisors serve as the bridge between coursework and clinical experience and play an important role in the development of the preservice teacher. Our university supervisors provide regular observations and coaching conversations focused on the targeted practices and priorities. We hire university supervisors who have deep connections and knowledge of the districts. They know the expectations of a successful teacher in the school communities and can coach and evaluate with this in mind. Our university supervisors serve as university liaisons who collaborate with the mentor teachers and preservice educators to complete what we consider the *triad*. The triad works together throughout the school year to individualize coaching, provide professional development, and evaluate the pre-service educator. University supervisors collaborate through monthly meetings and participate in mentor teacher professional development.

Choose Effective Mentor Teachers

While the coursework and instructors are important, the most important teach-

er educators in our GYO model are our mentor teachers (Klein et al., 2015). Our mentor teachers are school-based teacher educators who play an important role in bridging theoretical knowledge and classroom teaching (Chu & Wang, 2022). Integrating course learning and assignments into the authentic classroom requires a flexible and responsive learning environment. In our residency model, the cotaught classroom, shared between the mentor teacher and preservice educator, becomes a space to practice and refine teaching skills. We require our mentor teachers to not only be effective teachers with their K-12 students but also to have the ability to (a) model and coach on effective teaching practices, (b) make their teaching practices explicit, (c) provide multiple opportunities for our preservice educators to practice teaching, (d) provide evidence-based feedback, and (e) actively address patterns of inequity. To prepare mentor teachers to step into this important teacher leadership role, we collaborate with our school partners to recruit, select, and prepare effective mentors (Leon, 2014; Lillo, 2018; Roegman et al., 2017).

Our mentor teachers must meet state and district requirements (e.g., number of years teaching, correct license, and tenure). We ask mentor teachers to apply and include information about their preferred style of communication, collaboration, and equity lens. Candidates also complete a survey, requesting information about geographic preferences, start times, transportation needs, and communication and collaboration preferences. We use this information to match our teacher candidates with mentor teachers. The residency program hosts a meet-and-greet event for building administrators, mentor teachers, and candidates to meet one another and begin building relationships before the school year begin.

TABLE 5: Assignment Alignment

LEARNING CYCLE	UNIVERSAL DESIGN FOR LEARNING (UDL) ASSIGNMENT
Introduce/Prepare	Read and view material about UDL. Participate in class discussions about UDL. Select a subject area and learner(s) to focus on. Gather information about the assets, preferences, interests, and social identities of focus learner(s).
Practice	Given the identified information about the learner(s), design a lesson that includes the principles of UDL. Share the lesson plan during class with peers to obtain feedback.
Enact	Teach the designed lesson during observation from a Mentor Teacher or University Supervisor.
Analyze	Reflect, analyze, and meet with observers and discuss taught lesson including the integration of the identified information about the learner(s) and components of utilized UDL principles. Reflect and incorporate revisions in the lesson.

Provide Professional Development

Our residency course instructors and university supervisors participate in advanced professional development through quarterly (i.e., each academic semester) retreats with district leaders and GYO staff. In these retreats, we discuss unique characteristics of our GYO model, share the targeted practices and scope and sequence, and work to align content and assignments across the year-long clinical experience. We use a learning cycle (University of Washington, n.d.) to organize priority practices, which includes the following steps (1) introduce, (2) prepare, (3) enact, and (4) analyze (McDonald et al., 2013). Table 5 includes an example of an assignment that requires collaboration between the course instructor, university supervisor, and mentor teacher.

Every retreat includes content, reflection, and discussion on anti-racism and anti-bias teaching and learning, including exploring identity and bias. We use

this critical lens to examine EBPs and HLPs and apply them in socioculturally and linguistically sustaining ways. During retreats, we ask instructors to reflect on work submitted by candidates and identify opportunities for edits or adjustments of assignments. Given the opportunity for ongoing reflection, instructors find opportunities for their own growth as well as ways to ensure our preservice educators are prepared to be effective and socioculturally and linguistically competent teachers.

As a result of these retreats and ongoing discussions with instructors, we have made changes to our programs. For example, we replaced some textbooks with more relevant, critically conscious, and inclusive books, such as *Cultivating Genius: An Equity Framework for Culturally and Historically Responsive Literacy* (Muhammad, 2020) and *We Want to Do More Than Survive: Abolitionist Teaching and the Pursuit of Educational Freedom* (Love,

2019). We have also revised and created assignments that align across courses and with the clinical experience, such as the assignment outlined in Table 5. In some of our partnerships, the districts invite our instructors and university supervisors to participate in and provide school-wide professional development.

Partnership Strategies to Reduce Financial Cost to Become a Licensed Educator

More than two-thirds of individuals entering the field of education borrow money to pay for their higher education, resulting in an average debt of about \$50,000 for those with a master's degree (Podolsky et al., 2019; U.S. Department of Education, 2015). The increasing burden of college debt is a large hurdle in pursuing educational careers. In 2022, approximately forty-eight million borrowers collectively owe more than \$1.7 trillion in federal student and private loans (Federal Stu-

dent Aid, 2022). This amount surpasses credit card debt and auto loans (Council of Foreign Relations, 2022). Based on the National Center for Education Statistics *Baccalaureate and Beyond* (Cominole et al., 2021), Black graduate students have around \$25,000 more in debt than white graduates and Hispanic college students borrow about the same as their white counterparts but have twice as high loan default rates. Incurring debt has been found to increase the odds that students chose higher-salary jobs and reduce the probability they chose ‘public interest’ jobs, such as education (Podolsky et al., 2019; Rothstein & Rouse, 2011). Both versions of our GYO models provide an affordable and accessible program to earn a teaching license and master’s degree by reducing the number of required credits, providing pay to preservice educators during their year-long clinical experiences, and collaborating to secure state, federal and philanthropic financial support.

Reduce Credits

In our state, candidates who did not receive an undergraduate degree in education, are required to take courses focused on teaching pedagogy to meet the standards of practice for the teaching profession (Minnesota Administrative Rule, 2016). These requirements add on courses and additional credit burdens to future educators seeking a first teaching license. In addition to basic educational courses, candidates must take required license-specific courses. Individuals seeking a master’s degree have research course requirements as well. Our traditional on-campus program requires 43 credits, but our GYO programs only require 34. We have reduced the credit load for our GYO programs by making some three-credit courses into two-credit courses to provide the preservice educators credit for the training that occurs on-the-job. Financially, our

IHE can justify this reduction as our school districts collaboratively recruit candidates to take our college courses, and some host the courses on their school sites. Thus, preservice educators in our GYO models save money while receiving full preparation programming. This is important as education may not pay as much as some professions (e.g., law, medicine) that better justify large upfront costs (Podolsky et al., 2019). Thus, removing the possibility of high student loan debt is important as earning potential after graduation can impact upward economic mobility.

Provide Paid Experience

Prospective teachers may be more likely to choose a pathway in which they can earn a salary while taking courses (Podolsky et al., 2019). Our candidates are both students at the university and employees of the district. During the academic year, our partner schools pay our candidates to remove the financial barrier of not being paid during the student teaching experience. In our residency model, districts pay a living-wage stipend or salary and benefits to candidates as they learn to teach in an experienced teacher’s classroom and take coursework. In our Work and Learn model, districts pay candidates working in the field as paraprofessionals and provisional educators. In return, our candidates typically commit to teaching in the partnering district for two to three years after graduation. Additionally, the program leads to a master’s degree. Working simultaneously towards a license and master’s degree provides candidates an opportunity for a larger salary in most school districts.

Seek State and Philanthropic Financial Support

Recognizing that the cost of tuition, even with reduced credits, continues to be a barrier to becoming a teacher, we collaborate with district partners to

advocate for and seek tuition support. With our partners, we lobby at the state level to create and increase funding for GYO grant programs for districts to support stipends and off-set tuition for pre-service teachers, especially candidates from traditionally underrepresented communities. We have received several foundation grants to support candidates including tuition support, emergency funds, and financial support for testing requirements. Partnerships afford us the opportunity to share the cost across systems, districts, IHEs, state and federal government, and through philanthropy. Partnerships provide us the means to lower the barriers for the individual candidate and work collaboratively to share the financial burden.

Partnership Strategies to Impact Retention Before and After Graduation

Turnover or attrition is when teachers leave the educational field to change careers and engage in non-education work, stay home with children, or retire from their profession (The IRIS Center, 2013). Over a number of years, the turnover rate among special education teachers has been at around 25 percent (Billingsley, 2004; Boe et al., 2007; Connelly & Graham, 2009; Guarino et al., 2006; Nance & Calabrese, 2009). Before graduation, our goal is to retain candidates and support them in the completion of our comprehensive GYO teacher preparation program. Research demonstrates that beginning teachers who enter the profession comprehensively prepared are more likely to stay in the field and they are less likely to leave teaching after a year than teachers with little or no pedagogical training (DeAngelis et al., 2013; Ingersoll et al., 2014; Podolsky et al., 2019).

After graduation, our goal is for our prepared educators to remain in the schools (and subjects) where they are

most needed and have been prepared (Hammerness et al. 2016). Research on context-specific teacher preparation, like our GYO programs, suggests that graduates remain in teaching longer than their peers from programs that offer less specific preparation (Feiman-Nemser et al., 2014; Tamir, 2010; 2013). Research also suggests that GYO pathways attract greater diversity into the teaching workforce, supplying teachers in hard-to-staff subjects while retaining them in the sponsoring districts at much higher rates than traditional teacher preparation programs (Guha & Darling-Hammond, 2016; Papay et al., 2012; Silva et al., 2014). We use several retention strategies during candidates' time at the university and after graduation, including (a) structuring cohorts, (b) monitoring progress, (c) advising, (d) reducing isolation through affinity groups, (e) supporting to meet licensure requirements, (f) preparing to secure employment, and (g) ensuring induction support.

Structure Cohorts

To alleviate feelings of isolation, our preservice educators in our GYO models complete their coursework in a cohort, which means they take all the same courses together. In addition, the IHE registers candidates for their classes. Our cohort structure provides extended engagement and supports the intentional development of a community among our candidates (Barnett et al., 2000). It also provides a context to allow our candidates the opportunity to (a) receive and give peer support to each other (Doolen & Biddlecombe, 2014); (b) participate and learn from each other (Olson et al., 2011); (c) collaborate (Shortell et al., 2007); and (d) share experiences (Tinto, 2012). Research shows peer support networks strengthen skills (Wegener et al., 2016) and career development (Ritchie et al., 2018), and reduce attrition to support

retention (Jones et al., 2006).

Monitor Progress and Advise

Our GYO models include active monitoring and advising of candidates to ensure retention. Our faculty coordinators in our Residency and Work and Learn models communicate with course instructors regularly to remind them of priority practices and other coursework and clinical applications. We require instructors to monitor the attendance and progress of the candidates. One of the first courses our candidates take is Pathways to Teaching. This course includes relationship-development strategies, problem-solving reflection, and embedded advising. In our Residency model, this course extends across the academic year and is taught by our faculty residency coordinator and our school district partner's residency coordinator. In our Residency model, the university coordinator and district coordinator meet one-on-one with each resident at least once each semester to check on their well-being and progress and remind them of license requirements. In our Work and Learn model, our GYO coordinators provide advising sessions each semester. Struggling candidates in both models are provided one-on-one support plans, created with input from sources such as the preservice educator, course instructor(s), mentor teacher, university supervisor, university program coordinator, district program coordinator, and representatives from the district.

Form Affinity Groups

To retain candidates, including those from traditionally unrepresented communities, we ensure they do not experience isolation based on their social identities (Rowland et al., 2023). Affinity groups can provide affirming space where participants can engage in honest dialogue, collaborative problem-solving, and self-advocacy to meet personal

and professional goals (Bristol et al., 2020). We have collaborated with our district partners to set up opportunities for candidates to form affinity groups based on the criteria they self-select. These affinity groups are led by graduates and district leaders. For example, one of our partners has a monthly affinity group for Men of Color. We support the affinity groups by collaboratively writing grants to fund the stipends for leaders and pay for materials and refreshments.

Support to Meet License Requirements

The National Center for Education Statistics reports that 30 percent of candidates who did not complete license requirements leave the profession within a five-year span, compared to 15 percent of fully licensed teachers (Gray & Taie, 2015). With this in mind, we provide regularly scheduled test support sessions for the required state examinations and seek out grant support to pay for the exams. Our current pass rate for the state special education content exam is 97 percent.

Prepare to Secure Employment

With our partners, we prepare candidates to secure employment after graduation. About four months before they finish the Residency program, we co-host an interview preparation session with district human resource representatives. During this workshop, human resource personnel describe the application and interview process, meet with candidates to review their resumes and participate in mini-mock interview sessions. One of the class assignments is "Launching your Teaching Profession" where candidates create a portfolio including a resume, cover letter, and artifacts from their teacher preparation experience. Early in the program, we set up field experiences across grade levels of students and different disability areas

to help teachers identify the job type they would like to seek employment. Finally, we ask our partner schools to determine available employment opportunities in their schools in the next school year and provide this information to candidates.

Ensure Induction Support

Induction supports teachers as they enter the profession. Our focus is on improving novice teachers' performance and retention, ultimately contributing to improving student outcomes (Podolsky et al., 2019). Providing comprehensive, well-designed induction supports has been found to contribute to new teachers staying in the profession at rates more than twice those who did not receive support, accelerated professional growth, and improved student learning (Bastian & Marks, 2017; Glazerman et al., 2010; Ingersoll & Smith, 2004; Ingersoll & Strong, 2011; Podolsky et al., 2019; Villar & Strong, 2007). In our Residency partnership with charter schools, we take a tiered approach to induction support. The first level of support is provided by the district. These induction activities include district-provided teacher orientation and professional development seminars and induction support from experienced teachers (e.g., coaching, mentoring, feedback, and opportunities to observe) (Ingersoll & Strong, 2011). At the second tier, we provide an induction support person who holds drop-in office hours where candidates can come to get help with teaching dilemmas in the field. For example, help with scheduling paraprofessionals during a school day. We also provide continued professional development (e.g., microcredentials awarded by digital badges) on topics where our previous graduates have been shown to need support (e.g., educating multilingual students in special education) at no cost to our graduates. At the top tier, our induction support person

goes into the field to provide support. This level of support is initiated by the candidate or a district administrator and is customized to the individual.

CONCLUSION

Given significant and complex issues surrounding special education shortages and lack of diversity in the workforce, IHEs and districts must partner to recruit, prepare, and retain educators, including those from traditionally underrepresented communities. In this article, we highlighted how our IHE has authentically partnered to create two GYO programs to remove barriers to becoming an educator. It is important to note that within our GYO programs, we utilize improvement science to review evaluation data collected from our preservice candidates, GYO coordinators, faculty and staff, course instructors, mentor teachers, graduates, university supervisors, and district leaders to determine our candidates' growth and competency in targeted areas and, based on results, adjust our preparation program as needed. For example, during Covid, we changed the course load during one semester in our Work and Learn programs based on candidates' feedback. In our residency model, based on feedback, we have adjusted the course schedule to align with providing information on topics for residents when they need it and can best apply it. Through these sustained and collaborative partnerships, we continue to grow and learn together to provide a teacher preparation program that produces high-quality socially-just special educators.

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