Forging Partnerships to Address Teacher Shortages in Rural Settings: Engaging Key Players

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ABSTRACT

Discussing the topic of special education teacher shortages across the United States has become commonplace. Although more widespread, special education teacher shortages in rural areas have gained less attention. Teachers in these areas face unique challenges such as overcoming geographic barriers to providing high-quality services, the isolation endemic to rural poverty, and having limited access to resources in schools. Additionally, students with disabilities living in rural areas are more likely to be supported by teachers who are ill-prepared, lack experience, and/or fail to possess the qualifications necessary to meet diverse learning needs. Addressing these challenges requires innovative partnerships between national, state, and university personnel to create systemic change to recruit and retain special educators. The purpose of this article is to describe a partnership between The Collaboration for Effective Educator Development, Accountability, and Reform (CEEDAR) Center, the Mississippi Department of Education (MDE), Education Preparation Programs (EPPs), including Delta State University, and a cross-section of special education directors in the Mississippi Delta and other regions that utilized The Educator Shortages in Special Education Toolkit (Hayes et al., 2019) as a guide, which resulted in the development of the Special Educator Mentoring Framework. This article will explore the Special Educator Mentoring Framework that engaged stakeholders in purposeful activities through the four-step cyclical process to plan, design, implement, and evaluate efforts to address the special educator shortages in rural regions of Mississippi. This unique collaboration highlights promising practices to promote special education teacher preparation and strengthen teaching practice.

KEYWORDS

Educator preparation programs, partnerships, rural areas, special education

The special education teacher (SET) shortage has garnered national attention for decades. Recently, due to the COVID-19 pandemic, which mandated public-school closures in the spring of 2020, teacher attrition rates continued to increase (Jameson et al., 2020). Prior to the pandemic, roughly 42% of certified SETs in rural districts reported that they would leave their positions in the next five years due to stress and burnout (Berry et al., 2011). Furthermore, approximately 13% of SETs in rural districts held provisionary or emergency licenses. They also had a higher likelihood of leaving the profession (Berry et al., 2011; Billingsley, 2004). While post-pandemic impact on SET attrition is being uncovered, it is apparent that many stakeholders were unprepared to support SETs to provide adequate services to students with disabilities in rural settings even prior to 2020 (Ault et al., 2020). Therefore, without swift intervention, students with disabilities in rural areas are at greater risk of receiving low-quality instruction from underprepared and underqualified SETs, which could negatively impact student outcomes (Rock et al., 2016).

On average, SETs exit the field within the first 3-5 years, presenting a turn-

over rate that is greater than that of general education teachers, further exacerbating the shortage of SETs (DeAngelis & Presley, 2011; Gilmour & Wehby, 2020; Ingersoll, 2001). The contributing factors of SET attrition include: (a) special education teacher characteristics (Billingsley, 2004); (b) special education teacher preparation (Billingsley, 2005; Connelly & Graham, 2009); (c) school characteristics (Billingsley, 2004; Billingsley, 2007); and (d) working conditions (Albrecht et al., 2009; Berry, 2012; Bettini et al., 2017; Carver-Thomas & Darling Hammond, 2017). For SETs serving rural communities, these factors are often compounded by unique challenges, such as overcoming geographic barriers, poverty, and limited resources (Barrett, 2015; Boe et al., 2013; Fall & Billingsley, 2011; Rude & Miller, 2018). Regardless of the causes of attrition, it prohibits educational equity for students with disabilities (Mason-Williams, 2015).

Although there has been an increase in understanding of the causes of attrition among SETs, minimal progress has been made in alleviating the problem (Billingsley & Bettini, 2019).

According to Kamman and Long (2010), greater attention is now being given to the induction process for SETs as a method to address concerns regarding burnout, teacher quality, and attrition. Although induction has been a visible focus in the literature for general education teachers (e.g., Ronfeldt & McQueen, 2017; Strong, 2005), less attention has been given to the complex and multifaceted roles of special education teachers and their processes of induction (Youngs et al., 2011). Research on stressors and supports that influence SET induction should be centered around the complexities of SET daily experiences that are specific to the roles and responsibilities related

Addressing the shortage requires careful attention to all aspects of the special educator career acknowledging the demographics.

to special education (Chapman et al., 2021; Mathews et al., 2017).

The Landscape of SET Shortages in Mississippi

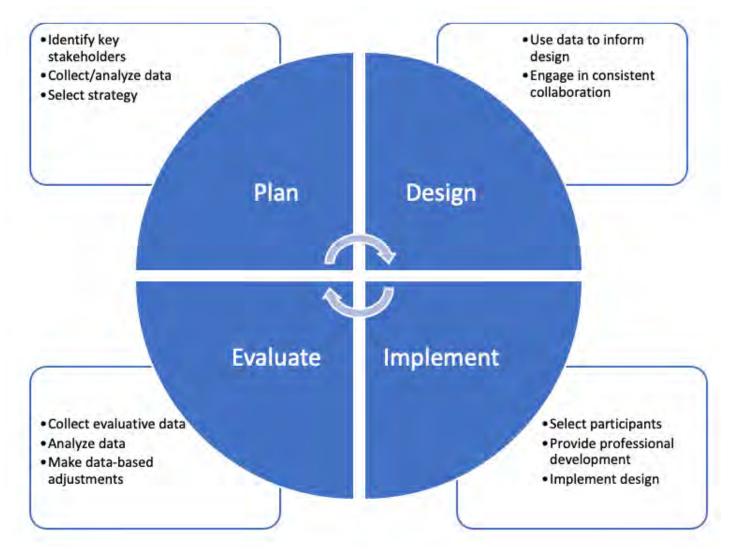
Historically, the national shortage of special educators has caused a negative impact across all students with disabilities, yet students in rural regions have borne a heavier burden of the negative impact (Mitchem et al., 2000; Rude & Miller, 2018). Mississippi, an agrarian state with a large number of rural communities, has an estimated population of 2,959,473 people. Fifty-one percent of Mississippi's total population resides in a rural area, giving Mississippi the 4th largest rural population in the US (United States Department of Agriculture-Economic Research Service [USDA-ERS], 2022). According to USDA, rural areas consist of open countryside with population densities less than 500 people per mile and areas with fewer than 2,500 inhabitants (USDA, 2019).

As such, over half of the state's schools are considered rural (Showalter et al., 2017) and special educator shortages are especially impactful.

Although some rural regions in northeast Mississippi boast a wealth of educational resources, most rural communities in the Delta struggle to provide adequate learning facilities and personnel. Thus, Mississippi has not been immune to the problem of teacher shortages and currently faces a critical lack of SETs. According to data collected by the Mississippi Department of Education (MDE), in the 2021-2022 school year, there were over 677 special educator vacancies, with 189 positions still unfilled by the first day of school (MDE, 2022). Furthermore, this number was an increase from the year prior, in which 146 SET positions remained unfilled at the start of the 2020-2021 school year (MDE, 2021). Interestingly, the number of licensed SETs in Mississippi has increased by almost 30% over the past three years, from 4,355 in the 2019-2020 school year to 5,604 in the 2021-2022 school year (MDE, 2020; 2022). Despite the increase in licensed SETs, persistent shortages of SETs remain across Mississippi schools, a phenomenon which suggests that school districts across the state are struggling to retain SETs. One strategy to support retention of SETs is purposefully designed, targeted, and ongoing induction and mentorship (Billingsley & Bettini, 2019).

Research on the retention of general education teachers has long demonstrated that mentorship is a key component of an effective process of induction and retention (e.g., Guarino et al., 2006; Ingersoll & Strong, 2011). However, less evidence is available to demonstrate a relationship between mentorship and SET retention (Billingsley & Bettini, 2019; Billingsley, 2004). Research has demonstrated induction programs for SETs typically include a formal mentorship component (Billingsley et al., 2019), and

FIGURE 1: Process Graphic



whenever possible, SETs have similar teaching assignments to their mentors (Billingsley et al., 2009; Cornelius et al., 2020). Moreover, mentoring is meant to provide professional guidance (e.g., instructional and procedural support, materials, resources) and emotional support (e.g., understanding, guidance, stress management), (Israel et al., 2014). For SETs in rural districts, mentorship and collegial support have been shown to be major predictors of SETs staying after their first year (Buchanan et al., 2013). According to Ortogero and colleagues (2022), relationships with colleagues and students were factors directly

related to rural SETs burnout, as SETs who experienced less social networking and support, were more likely to burnout (Garwood et al., 2018). While literature related to special education induction and mentoring is expanding, little is known about building collaborative partnerships between state, local education agencies, and technical assistance centers to support SET induction and mentoring to increase retention efforts in rural communities. Therefore, acknowledging the unique rural settings that represent challenges with preparing, attracting, and especially retaining certified special educators, Mississippi insightfully embarked

on a collaborative partnership that would include essential stakeholders.

Initial Collaborative Process

The special education shortage in Mississippi is compounded by a complex network of interdependent relationships between rural contexts and special educator preparation and career readiness. Addressing the shortage requires careful attention to all aspects of the special educator career continuum while also acknowledging the role of context and demographics. Consequently, this endeavor necessitated an evidence-based process that would address the shortage at the contextual

level. The Collaboration for Effective Educator Development, Accountability, and Reform (CEEDAR) Center, an Office of Special Programs (OSEP) funded technical assistance project based out of the University of Florida, was instrumental in establishing a collaborative partnership involving Education Preparation Programs (EPPs), Mississippi Department of Education (MDE), and Local Education Agencies (LEAs). The mission of the CEEDAR Center is to: support students with disabilities in achieving college and career ready standards by building the capacity of state personnel preparation systems to prepare teachers and leaders to implement evidence-based practices within multi-tiered systems of support. (CEEDAR Center, 2020)

Thus, the collaborative effort between the CEEDAR Center and key stakeholders in Mississippi, provided the foundation to adapt an evidence-based framework for effectively addressing the contextual nuances presented by special educator shortages in rural regions. Visit https://ceedar. education.ufl.edu/shortage-toolkit/ to view information on the Mississippi Special Education Teacher Shortage Pilot Process.

Using the Educator Shortages in Special Education Toolkit (Hayes et al., 2019) process as a guide, the Teacher Shortages Workgroup, which consisted of representatives from CEEDAR Center, EPPs, representatives from multiple offices at the MDE, special education directors from several LEAs, and a representative from a regional education service agency (RESA), developed a framework for approaching the multi-dimensional work of addressing the shortage. As noted in Figure 1, the Special Educator Mentoring Framework suggested a cyclical process to engage stakeholders in purposeful activities to plan, design, implement, and evaluate efforts to address the special educator shortages in rural regions of Mississippi.

Plan

Following the collaborative process outlined by the Educator Shortages in Special Education Toolkit (Hayes et al., 2019), the first step was to intentionally identify and engage key players who had intimate knowledge of special education needs in rural schools and who were positioned to directly impact efforts to address the special education teacher shortage.

The state's CEEDAR Collaborative, which included CEEDAR representatives, representatives from multiple offices at MDE, EPPs, administrators and teachers from several LEAs, and a representative from a RESA, provided a core of valuable expertise. Though the CEEDAR Collaborative convened periodically to address state goals, it was evident a work group was needed to focus specifically on the special educator shortage. The Teacher Shortages Workgroup was developed to glean from the expertise of the CEEDAR Collaborative. The workgroup benefitted from a current in the trenches view of the special educator career continuum as it played out on a daily basis. The intent was to include special education directors from various districts and regions in Mississippi to reflect the state's unique needs resulting from its geographical and racial diversity.

The Teacher Shortages Workgroup met bi-weekly virtually during the 2020-2021 school year and followed the guidance of the Educator Shortages in Special Education Toolkit (Hayes et al., 2019) to address the state's special educator shortages. Key to the workgroup was establishing a true collaborative representing a common vision and collective effort for developing measures to address the shortage. All members of the workgroup contributed expertise and were given equal leverage throughout the process. This was reinforced by anecdotal survey data from special education directors who identified the collaboration of all partners was critical in the selection of the strategy, development of the process to implement the mentoring pilot program, and the development of the content used in the mentoring pilot program.

The next step included the collection and examination of state and local data that would inform measures for addressing the state's shortages. Data concerning all levels of the pipeline, as well as the full spectrum of the special educator career, were reviewed. Data for the 2018-2019 school term indicated 11 colleges and universities produced 135 certified special educators (MDE, 2019). However, the pipeline was insufficient to supply the 221 special educators needed to fill the state's vacant positions during the 2019-2020 school year. There were 16,544 educators in Mississippi who were licensed to teach special education; however, only 4,355 fully licensed special educators were in practice. Additional data were collected to represent perceptions of teachers at the local level who were leaving their positions as special educators (MDE, 2021). The data revealed deficits in both the state's special educator pipeline and career continuum, with 74% of teachers reporting that additional professional development and supports would have encouraged them to stay in their position. However, within the career continuum, with less than 25% of licensed special educators in the classrooms, the inability to retain special educators presented the greatest challenge to the state's ability to provide adequate learning experiences for students with disabilities.

Keeping the data in mind, the workgroup then used the Educator Shortages in Special Education Toolkit's (Hayes et al., 2019) resources to discuss and rate possible strategies for addressing the shortage. Crucial to this phase of the process was identifying a measure that would address the shortage in the short term while also building a foundation for long-term impact. The diversity of the work group was critical to this phase as each member held a unique perspective of the shortage and its impact on students with special needs. The varied perspectives were used to consider the impact of suggested strategies. The outcome of this phase was the discovery that effective mentoring and induction programs were missing elements in the career continuum across varied contexts within the state. Since affecting immediate and sustained change in the historically insufficient special education teacher population would have both short-term and long-term effects (Feng & Sass, 2015), developing and implementing a well-informed Mentoring and Induction Pilot Program was a viable solution for addressing the state's shortages across various settings.

Design

After the Teacher Shortages Workgroup identified the Mentoring and Induction Pilot Program as the retention strategy to implement, the group carefully designed the mentoring program to promote successful implementation and provide the best chance for favorable outcomes (see Billingsley et al., 2009; Desimone et al., 2014; Ingersoll & Strong, 2011). The Teacher Shortages Workgroup then met virtually on a bi-weekly basis throughout the 2021-2022 school year to discuss program implementation and offer guidance. Key components

of the program included professional learning and ongoing support for mentors, administrators, and SETs within their first or second year and a community of practice for SETs in their third year of experience (Bettini et al., 2017). All professional learning throughout the school year included the Council for Exceptional Children and CEEDAR Center's High Leverage Practices (HLPs) in Special Education, and professional learning was aligned each month so all stakeholder groups focused on the same HLP.

Mentor Professional Learning and Ongoing Support

LEAs selected mentors to participate in the program using mentor selection guidance provided by the Teacher Shortages Workgroup. The majority of the mentors selected were full-time SETs with at least three years of special education experience; however, two LEAs selected mentors who were serving as district-level case managers. Research has shown that providing mentors with professional development prior to mentorship is a critical component of effective induction practices (Cornelius et al., 2020; Marshall et al., 2013). For this reason, prior to the start of the school year, all mentors attended Mentor Boot Camp, an intense, two-day training focused on mentoring skills and HLPs. The HLPs used for the training were previously identified by the state's CEED-AR Collaborative, which engaged in a q-sort process to identify six HLPs for initial statewide implementation. Members were asked to independently rank the five most important HLPs to leverage instructional effectiveness. Then, these rankings were compared across the group to identify the top six HLPs as the state's initial focus. These six HLPs were then incorporated into the professional learning for mentors,

new SETs, and administrators.

The Mentor Boot Camp was facilitated by the Mentoring and Induction Pilot Program Project Director and an adjunct instructor from the University of Mississippi. The Mentor Boot Camp embedded the study of three main resources throughout: both the mentoring and induction manuals published by the National Center to Inform Policy and Practice in Special Education (Kamman et al., 2013a; Kamman et al., 2013b), and the Council for Exceptional Children's and CEEDAR Center's HLPs in Special Education publication. A focus HLP was selected for each month, and professional learning was designed monthly to ensure mentors knew key components of implementing the HLP. Mentors participated virtually in monthly check-ins lasting an hour, during which mentors discussed celebrations, challenges, the focus HLP, mentor requirements, and any support needed.

Mentor Compensation. Mentors were compensated by MDE for their services at a rate of \$1,500 per mentee (i.e., novice SETs) for the school year if all mentor requirements were met, including attending monthly mentor check-ins and completing mentor logs to document the services provided. Mentors were expected to observe mentees, with no minimum number of observations set, and these observations were expected to be documented along with other mentor services. Special education directors verified each mentor's eligibility for compensation and submitted verification of eligibility for payment.

Implement Novice Special Education Teacher Professional Learning and Ongoing Support

Novice special education teachers were provided consistent monthly

FIGURE 2

August 2021 Principal Update

Helping Your New Special Educators Connect Professional Learning to Professional Practice

On August 19, 2021, from 2 PM until 4 PM, the first virtual professional learning event was held via Zoom with your first- and second-year special education teachers. Information about the event is below.

Professional Learning Focus

HLP #7: Establish a consistent, organized, and respectful learning environment.

Topics explored and discussed included the following:

- Establishing learning environments and positive relationships
- Culturally responsive teaching
- Developing and explicitly teaching expectations and procedures
- Specific feedback
- Opportunities to respond (OTRs)

Follow-up

Next steps:

- 1. Visit the new special education teacher's classroom and informally check-in with her/him to see how s/he went about establishing a positive learning environment.
- 2. Praise any OTRs you see happening in the teacher's classroom.
- 3. Check-in with your mentors to be sure they have been able to organize a time for their mentees to observe a veteran teacher who has mastered (all or elements of) HLP #7, specifically a teacher who effectively has established and implements routines and procedures and who often provides specific performance feedback to students.
- 4. Check-in with mentors to be sure they have been able to meet/communicate with their mentees.
- 5. Conduct a drop-in observation. Connections to the PGS Special Education Teacher Growth Rubric: HLP #7 can be observed in (and you can collect evidence to support) standard 3, standard 4, standard 5, standard 6, & standard 7.
- 6. Ensure new special educators (and mentors, if possible) prepare to participate in the next session on September 15, 2021, from 2 PM until 4 PM.

Professional Learning Resources

PowerPoint Presentation Opportunities to Respond (OTRs) Tip Sheet High-Leverage Practices in Special Education







professional development and support that was specifically targeted to their unique roles and responsibilities. This type of support has proven essential for the professional growth and retention of special education teachers (Ansley et al., 2019; Hughes et al., 2015; Macedonia & Weiss, 2022; Prather-Jones, 2011). Thus, novice SETs received two hours of professional learning each month, focused on the specific HLP for that month, including celebrations and challenges they faced as novice special educators. The sessions were held virtually during the school day. The intent was to develop a community of support and a "safe space" in which novice SETs could professionally grow and seek solutions to challenges they were facing. Novice SETs were eligible to apply for .1 continuing education unit (CEU) for every clock hour that they attended professional learning. These CEUs could be used towards license renewal.

Administrator Professional Learning and Ongoing Support

School administrators play a critical role in providing the necessary supports, including personnel, resources, materials, and training, to maintain and support a competent instructional staff (Cancio et al., 2013; Prather-Jones, 2011). However, the under-preparation of school administrators who support special education programs and special education teachers is well documented in the literature (Angelle & Bilton, 2009; Ball & Green, 2014; McHatton et al., 2010; Wakeman et al., 2006). Therefore, within the Implement process, school and district administrators received a 5-hour in-person training at the beginning of the school year followed by two hours per month of virtual professional learning focused on the

FIGURE 3

Month	Topic(s)	HLP
August	Classroom setup	#7: Establish a consistent, organized, and respectful learning environment
September	Planning for maximum impact	#18: Use strategies to promote active student engagement
October	Providing feedback	#8 & #22: Provide positive and constructive feedback to guide students' learning and behavior
November	Ongoing data collection	#4: Use multiple sources of information to develop a comprehensive understanding of a student's strengths and needs
January	Explicit Instruction	#16: Use explicit instruction
February	Accommodations and modifications	#13: Adapt curriculum materials and tasks
March	IEP development; collaboration with families	#2: Organize and facilitate effective meetings with professionals and families & #11: Identify and prioritize long- and short-term learning goals
April	Supporting student learning	#15: Provide scaffolded supports

HLP of the month, supporting novice SETs, and supporting mentors. Administrators were also emailed the Principal Update (See Figure 2) at the end of each month. This correspondence included: descriptions of the support provided to novice SETs and mentors, suggestions for follow-up with novice SETs and mentors, connections to Mississippi's Special Education Teacher Observation Rubric, and professional learning resources.

Third-Year Special Educator Community of Practice

Third-year SETs in participating LEAs were invited to join a virtual monthly community of practice meeting, which research has shown can increase shared understandings of effective teaching (Bryk, 2009). The community practice meetings focused on targeted HLPs, along with celebrations, challenges, and current topics of interest (e.g., guest speaker from

the Mississippi Parent Training and Information Center during the spring semester when so many IEP meetings were being held). The intent was to provide a community of support as well as professional learning regarding HLPs and other relevant topics in the special education field. See Figure 3 for monthly topics and targeted HLP.

Evaluate

Data were collected and shared with the Teacher Shortages Workgroup throughout the first year of the Mentoring and Induction Pilot Program, and workgroup members provided guidance and made recommendations as needed. As members of the Teacher Shortages Workgroup, the special education directors in participating LEAs were key partners in its successful implementation, serving as liaisons between the workgroup and LEAs and providing ongoing input and feedback to the project director. These special

education directors also frequently participated in professional learning provided, presenting content at times and sharing their expertise with novice SETs, mentors, administrators, or third vear SETs.

During monthly mentor check-ins and professional learning for novice SETs, administrators, and third year SETs, anecdotal data were collected to document ongoing challenges and celebrations. Additionally, mid-year surveys were administered to novice SETs and mentors to determine if program objectives were being met. Finally, an end-of-year survey was administered to mentors soliciting feedback on support provided to them throughout the first year of implementation. All data were shared regularly with the Teacher Shortages Workgroup, and adjustments were made as a result of stakeholder engagement and input.

Lessons Learned and Recommendations

The Teacher Shortages Workgroup learned many lessons throughout the process of planning, designing, implementing, and evaluating a mentoring framework and provided the following recommendations for other states or LEAs seeking to adopt Mississippi's model. First, engaging key partners to address the special educator shortage requires intentionality. It is critical to include relevant stakeholders via collaborative partnerships throughout the process, including representatives from LEAs, the state education agency, EPPs, and any external partners who can assist the work. Failing to represent all levels of the pipeline, from educator preparation, to certification and licensure, to active school personnel, as well as any assisting entities, resulted in delays in the process. Equally important is the consideration

TABLE 1: Recommendations for Practice

Targeted Recommendation

Identify and engage key partners who represent all aspects of the special educator pipeline and career continuum. Solicit partners that represent the varied regional contexts impacted by the shortages. Identify a clear focus for the intervention. Align all professional learning to address the agreed-upon focus. Set minimum expectations for mentees, mentors, and administrators. Ensure administrators follow up with mentors.

Discuss the mentoring and induction program requirements at the beginning of

of diverse contexts. Since Mississippi is a diverse, rural state with varied needs, it took time to solicit support from special education directors from school districts in key rural regions.

the school year with all stakeholders.

Second, structure the program and align all professional learning so the focus of the intervention is consistent and clear. Mississippi's Mentoring and Induction Pilot Program included support for mentors, administrators, novice SETs, and third-year SETs and professional learning for all stakeholders in HLPs. By keeping the focus on high-leverage, evidence-based practices and alignment in professional learning, participants learned essential skills to meet the needs of students with disabilities. Further, this learning strengthened the framework and provided clarity of focus.

Additionally, set and clearly communicate minimum expectations for mentees and mentors, and ensure administrators follow up with mentors. In Mississippi's original model, expectations were communicated with mentees and mentors, but clear minimum requirements were not set or communicated. For example, novice

SETs were expected to meet with mentors, identify specific look-fors (i.e., observable teacher behaviors) related to the focus HLP for the month, and then observe another teacher whose pedagogy reflects mastery of the focus HLP. Mentors were then expected to debrief with their mentees, discuss how to incorporate elements of the HLP into the mentee's professional practice, and set a date for the mentor to observe the HLP in action in the mentee's practice. After the mentor observed the mentee, the mentor was expected to lead a feedback conversation about the observation. The Teacher Shortages Workgroup expected this process to occur monthly. However, the failure to establish a minimum requirement, along with other challenges such as COVID-19 and substitute shortages, resulted in few observations taking place and inconsistent mentoring services being provided. Finally, discuss the mentoring and induction program requirements at the beginning of the school year with all participating stakeholder groups to ensure all stakeholders understand the purpose, focus, expectations, and requirements

of the program. The aforementioned recommendations are included in Table 1.

CONCLUSION

As documented by survey responses, novice SETs in the Mississippi Mentoring and Induction Pilot Program found the program valuable to their practice. One novice SET added, "I feel that I have been able to provide clearer, more helpful feedback to my students" (anonymous). This response from survey items is just one that demonstrates how SETs felt the induction and mentoring program supported their practices. Although there were some challenges, such as time for mentors to observe mentees, overall, participants felt the program was a success. SETs reported feeling supported from their participation in this program, and mentors enjoyed working with the novice teachers.

SETs working in rural areas face unique challenges, and the SETs from rural areas who participated in our pilot program were no exception. These teachers were often the only special educator within their school building and thus were missing the social-emotional supports of critical collegial friendships with other SETs that benefit SETs in urban and suburban schools (Rude & Miller, 2018; Sindelar et al., 2018). These collegial relationships among educators within the same disciplines is a necessary component to successful induction and mentoring (Sindelar et al., 2018), as teachers can receive professional development and social-emotional supports uniquely tailored to their needs.

Rude and Miller (2018) state local school districts, educator preparation programs, and policy makers must be creative to develop solutions to SET retention. Therefore, to develop and implement this robust program to ensure

SETs in varied school settings across Mississippi, particularly those in rural communities, received mentoring and induction supports with other SETs that support their needs, the pilot program required strong and varied collaborative partnerships. If district or state leaders are interested in implementing an induction and mentoring program, it is highly recommended they first seek out and develop relationships with relevant stakeholders to help support the development and implementation of a program (Rude & Miller, 2018). The shortage of special education teachers has persisted for decades, but it can be addressed. A strong, ongoing induction and mentoring program can be one tool district leaders can implement to help alleviate SET shortages and prevent teacher attrition.

REFERENCES

- Albrecht, S. F., Johns, B. H., Mounsteven, J., & Olorunda, O. (2009). Working conditions as risk or resiliency factors for teachers of students with emotional and behavioral disabilities. *Psychology in the Schools*, 46(10), 1006–1022. https://doi.org/10.1002/pits.20440
- Angelle, P., & Bilton, L. M. (2009). Confronting the unknown: Principal preparationtraining in issues related to special education. *AASA Journal of Scholarship and Practice*, *5*(4), 5-9
- Ansley, B. M., Houchins, D., & Varjas, K. (2019). Cultivating positive work contexts that promote teacher job satisfaction and retention in high-need schools. *Journal of Special Education Leadership*, 32(1), 3-16.
- Ault, M. J., Courtade, G., Miracle, S. A., & Bruce, A. E. (2020). Providing support for rural educators during nontraditional instruction: One state's response. *Rural Special Education Quarterly*, 39(4), 193-200. https://doi.org/10.1177/8756870520959653
- Ball, K. & Green, R. L. (2014). An investigation of the attitudes of school leaders toward the inclusion of students with disabilities in the general education setting. *National Forum of Applied Educational Research Journal*, 27(1/2), 57-76. https://digitalcommons.memphis.edu/cgi/viewcontent.cgi?article=1700&context=etd
- Barrett, N., Cowen, J., Toma, E., & Troske, S. (2015). Working with what they have: Professional development as a reform strategy in rural schools. *Journal of Research in Rural Education*, 30(10), 1–18.

- Berry, A. B. (2012). The relationship of perceived support to satisfaction and commitment for special education teachers in rural areas. *Rural Special Education Quarterly*, 31(1), 3-14. https://doi.org/10.1177/875687051203100102
- Berry, A. B., Petrin, R., Gravelle, M., & Farmer, T. (2011). Issues in special education teacher recruitment, retention, and professional development: Considerations in supporting rural teachers. *Rural Special Education Quarterly*, 30(4), 3-11. https://doi.org/10.1177/875687051103000402
- Bettini, E., Jones, N., Brownell, M., Conroy, M., Park, Y., Leite, W., Crockett, J., & Benedict, A. (2017). Workload manageability among novice special and general educators: Relationships with emotional exhaustion and career intentions. *Remedial and Special Education*, 38(4), 246-256. https://doi.org/10.1177/0741932517708327
- Billingsley B. (2004). Special education teacher retention and attrition: A critical analysis of the research literature. *Journal of Special Education*, 38(1), 39–55. https://doi.org/10.1177/00224669040380010401
- Billingsley, B. (2005). Cultivating and keeping committed special education teachers: What principals and district school-based administrators can do. Corwin Press.
- Billingsley, B. (2007). A case study of special education teacher attrition in an urban district. *Journal of Special Education Leadership*, 10, 11–20.
- Billingsley, B., & Bettini, E. (2019) Special education teacher attrition and retention: A review of the literature. *Review of Educational Research*, 89(5), 697-744. https://doi.org/10.3102/0034654319862495
- Billingsley, B. S., Griffin, C. C., Smith, S. J., Kamman, M., & Israel, M. (2009). A review of teacher induction in special education: Research, practice, and technology solutions (National Center to Inform Policy and Practice in Special Education Professional Development [NCIPP] Doc. No. RS-1). Retrieved from https://ncipp.education.ufl.edu/files-6/NCIPP Induc 010310.pdf
- Boe, E. E., deBettencourt, L. U., Dewey, J., Rosenberg, M., Sindelar P., & Leko, C. (2013). Variability in demand for special education teachers: Indicators, explanations, and impact. *Exceptionality*, 21(2), 103–125. https://doi.org/10.1080/09362835.2013.77 1563
- Bryk T. (2009). Supporting a science of performance improvement. *Phi Delta Kappan*, *90*, 507–600.
- Buchanan, J., Prescott, A., Schuck, S., Aubusson, P., Burke, P., & Louviere, J. (2013). Teacher retention and attrition: Views of early career teachers. *Australian Journal of Teacher Education*, 38(3), 112-129. https://doi.org/10.14221/ajte.2013v38n3.9
- Cancio, E. J., Albrecht, S. F., & Johns, B. H. (2013). Defining administrative support and

- its relationship to the attrition of teachers of students with emotional and behavioral disorders. Education and Treatment of Children, 36(4), 71–94. https://doi.org/10.1353/ etc.2013.0035
- Carver-Thomas, D., & Darling-Hammond, L. (2017). Teacher turnover: Why it mattersand what we can do about it. Learning Policy Institute.
- CEEDAR Center. (2020). About us. The CEED-AR Center at the University of Florida. https://ceedar.education.ufl.edu/about-us/
- Chapman, L. A., Morris, C. T., & Cavendish, W. (2021). "She's my partner in crime": Informal collaboration and beginning special educator induction. The New Educator, 17(2), 197-218. https://doi.org/10.1080/154768 8x.2021.1904070
- Connelly, V. & Graham, S. (2009). Student teaching and teacher attrition in special education. Teacher Education and Special Education, 32(3), 257 – 269. https://doi. org/10.1177/0888406409339472
- Cornelius, K. E., Rosenberg, M. S., Sandmel, K. N. (2020). Examining the impact of professional development and coaching on mentoring of novice special educators. Action in Teacher Education, 42(3), 253-270. https:// doi.org/10.1080/01626620.2019.1638847
- DeAngelis, K. J., & Presley, J. B. (2011). Toward a more nuanced understanding of new teacher attrition. Education and Urban Society, 43(5), 598-626. https://doi. org/10.1177/0013124510380724
- Desimone, L. M., Hochberg, E. D., Porter, A. C., Polikoff, M. S., Schwartz, R., & Johnson, L. J. (2014). Formal and informal mentoring: Complementary, compensatory, or consistent? Journal of Teacher Education, 65, 88-110. https://doi. org/10.1177/0022487113511643
- Fall, A.-M., & Billingsley, B. S. (2011). Disparities in work conditions among early career special educators in high-and low-poverty districts. Remedial and Special Education, 32(1), 64-78. https://doi. org/10.1177/0741932510361264
- Feng, L., & Sass, T. (September, 2015). The impact of incentives to recruit and retain teachers in "hard-to-staff" subjects: An analysis of the Florida Critical Teacher Shortage Program (No. 141). Calder Center Working Paper. https://caldercenter.org/sites/ default/files/WP%20141.pdf
- Garwood, J. D., Wertz, M. G., Varghese, C., & Garsey, L. (2018). Mixed-methods analysis of rural special educators' role stressors, behavior management, and burnout. Rural Special Education Quarterly, 37(1), 30-43. https://doi. org/10.1177/8756870517745270
- Guarino, C. M., Santibañez, L., & Daley, G. A. (2006). Teacher recruitment and retention: A review of the recent empirical literature. Review of Educational

- Research, 76(2), 173-208. https://doi. org/10.3102/00346543076002173
- Gilmour, A. F., & Wehby, J. H. (2020). The association between teaching students with disabilities and teacher turnover. Journal of Educational Psychology, 112(5), 1042-1060. https://doi.org/10.1037/edu0000394
- Hayes, L., Kamman, M., Holdheide, L., & Colpo, A. (2019). Educator shortages in special education. Toolkit for developing local strategies. CEEDAR Center. https://ceedar.education.ufl.edu/wp-content/uploads/2020/01/ EduShort Facilitation-Guide.pdf
- Hughes, A. L., Matt, J. J., & O'Reilly, F. L. (2015). Principal support is imperative to the retention of teachers in hard-to-staff schools. Journal of Education and Training Studies, 3(1), 129-134. https://doi.org/10.11114/jets. v3i1.622
- Ingersoll, R. M. (2001). Teacher turnover and teacher shortages: An organizational analysis. American Educational Research Journal, 38(3), 499-534. https://doi. org/10.3102/00028312038003499
- Ingersoll, R. M., & Strong, M. (2011). The impact of induction and mentoring programs on beginning teachers: A critical review of the research. Review of Educational Research, 81, 201-233. https://doi. org/10.3102/0034654311403323
- Israel, M., Kamman, M. L., McCray, E., & Sindelar, P. T. (2014). Mentoring in action: The interplay among professional assistance, emotional support, and evaluation. Exceptional Children, 81(1), 45-63. https://doi. org/10.1177/0014402914532231
- Jameson, J. M., Stegenga, S. M., Ryan, J., & Green, A. (2020). Free appropriate public education in the time of COVID-19. Rural Special Education Quarterly, 39(4), 181-192. https://doi.org/10.1177/8756870520959659
- Kamman, M. L., & Long, S. K. (2010). One district's approach to induction of special education Teachers. Journal of Special Education Leadership, 23(1), 21-29.
- Kamman, M., Zimmerman, K., Israel, M., Billingsley, B., McCray, E., Brownell, M., Sindelar, P., Heretick, J., Rice, S., Bae, J. (2013a). District induction manual: Supporting beginning special educators (NCIPP Document No. IT-2). Retrieved from http:// ncipp.education.ufl.edu/files/District Induction Manual final.pdf
- Kamman, M., Zimmerman, K., Israel, M., Billingsley, B., McCray, E., Brownell, M., Sindelar, P., Heretick, J., Rice, S., Bae, J., Park, Y. (2013b). Mentor handbook: Supporting beginning special educators (NCIPP Document No. IT-1). Retrieved from http:// ncipp.education.ufl.edu/files/NCIPP_Mentor Handbook final.pdf
- Macedonia, A., & Weiss, M. P. (2022). Administrative support and provisionally-licensed special education teachers: Examining supportdimensions during a global pandemic.

- Journal of Education and Training Studies, 10(4), 30-45. https://doi.org/10.11114/jets. v10i4.5540
- Marshall, K. J., Karvonen, M., Yell, M. L., Lowrey, A., Drasgow, E., & Seaman, M. A. (2013). Project ReSpecT: Toward an evidence-based mentoring model of induction teachers. Journal of Disability Policy Studies, 24, 127-136. https://doi. org/10.1177/1044207313480837
- Mathews, H. M., Rodgers, W. J., & Youngs, P. (2017). Sense-making for beginning special educators: A systematic mixed studies review. Teaching and Teacher Education, 67(1), 23–36. https://doi.org/10.1016/j. tate.2017.05.007
- Mason-Williams, L. (2015). Unequal opportunities: A profile of the distribution of special education teachers. Exceptional Children, 81(2), 247-262. https://doi.org/10.1177/0014402914551737
- McHatton, P. A., Boyer, N. R., Shaunesy, E., & Terry, P. M. (2010). Principals' perceptions of preparation and practice in gifted and special education content: Are we doing enough? Journal of Research on Leadership Education, 5(1), 1-22. https://doi. org/10.1177/194277511000500101
- McLeskey, J., Barringer, M-D., Billingsley, B., Brownell, M., Jackson, D., Kennedy, M., Lewis, T., Maheady, L., Rodriguez, J., Scheeler, M. C., Winn, J., & Ziegler, D. (2017). High-leverage practices in special education. Arlington, VA: Council for Exceptional Children & CEEDAR Center.
- Mississippi Department of Education. (2020). Mississippi special education teacher shortage.
- Mississippi Department of Education. (2021). Mississippi special education teacher
- Mississippi Department of Education. (2022). Mississippi special education teacher shortage.
- Mitchem, K., Kossar, K., & Ludlow, B. L. (2006). Finite resources, increasing demands: Rural children left? Educators speak out on issues facing rural special education. Rural Special Education Quarterly, 25(3), 13-23. https:// doi.org/10.1177/875687050602500303
- Ortogero, S. P., Barcarse, T. O., & Ray, A. B. (2022). Developing the knowledge and mentoring skills of future special education leaders. Rural Special Education Quarterly, 41(4), 211-226. https://doi. org/10.1177/87568705221092765
- Prather-Jones, B. (2011). How school schoolbased administrators influence the retention of teachers of Students with emotional and behavioral disorders. The Clearing House, 84, 1-8. https://doi.org/10.1080/00098655.2 010.489387
- Rock, M. L., Spooner, F., Nagro, S. A., Vasquez, E., Dunn, C., Leko, M., Luckner, J., Bausch, M., Donehower, C., & Jones, J. L. (2016). 21st century change drivers: Considerations

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- for constructing transformative models of special education teacher development. *Teacher Education and Special Education*, 39(2), 98-120. https://doi.org/10.1177/0888406416640634
- Ronfeldt, M., & McQueen, K. (2017). Does new teacher induction really improve retention? *Journal of Teacher Education*, 68(4), 394-410. https://doi. org/10.1177/0022487117702583
- Rude, H., & Miller, K. J. (2018). Policy challenges and opportunities for rural special education. *Rural Special Educa*tion *Quarterly*, 37(1), 21-29. https://doi. org/10.1177/8756870517748662
- Showalter, D., Klein, R., Johnson, J., & Hartman, S. (2017). Why rural matters 2015- 2016: Understanding the changing landscape. The Rural School and Community Trust. www.ruraledu.org/user_uploads/file/WRM-2015-16.pdf
- Sindelar, P. T., Pua, D. J., Fisher, T., Peyton, D. J., Brownell, M. T., & Mason-Williams, L. 2018). The demand for special education teachers in rural schools revisited: An update on progress. *Rural Special Education Quarterly*, 37(1), 12-20. https://doi.org/10.1177/8756870517749247
- Strong, M. (2005) Teacher induction, mentoring, and retention: A summary of the research. New Educator, 1(3), 181-198. https://doi.org/10.1080/15476880590966295
- USDA. (2019, October 23). What is rural? U. S. Department of Agriculture Economic Research Service. https://www.ers.usda.gov/topics/rural-economy-population/rural-classifications/what-is-rural.aspx-#:~:text=According%20to%20this%20system%2C%20rural,with%20fewer%20than%202%2C500%20people.
- USDA-ERS. (2022). Rural definitions: Data documentation and methods. https://www.ers. usda.gov/webdocs/DataFiles/53180/25579 MS.pdf?v=0
- Wakeman, S. L. (2006). Principals' knowledge of fundamental and current issues in special education. *NASSP Bulletin*, 90(2), 153-174. https://doi.org/10.1177/0192636506288858
- Youngs, P., Jones, N., & Low, M. (2011). How beginning special and general education elementary teachers negotiate role expectations and access to professional resources. *Teachers College Record*, 113 (7), 1506–1540. https://doi.org/10.1177/016146811111300704