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District-Based Supports For Alternatively Licensed Special Education Teachers: An Action Research Study

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DISTRICT-BASED SUPPORTS FOR ALTERNATIVELY LICENSED SPECIAL

EDUCATION TEACHERS: AN ACTION RESEARCH STUDY

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A Dissertation

Presented to

The Faculty of the School of Education

The College of William & Mary in Virginia

———————————————

In Partial Fulfillment

Of the Requirements for the Degree

Doctor of Education

By

Hayley Flynn Mullins

May 2023

DISTRICT-BASED SUPPORTS FOR ALTERNATIVELY LICENSED SPECIAL

EDUCATION TEACHERS: AN ACTION RESEARCH STUDY

By

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Approved March 8, 2023 by

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Chairperson of Doctoral Committee

Dedication

This work is dedicated to fearless female leaders and their supporters. To women who went before and paved the way, making the journey easier for all women to pursue their goals. To women who traveled alongside and collectively celebrated, mourned, and persevered. To women who are yet to come, who dream. May this work build on, support, and pave the way for the continued positive influence of women and their fearless leadership.

Acknowledgments

My personal leadership journey has been fashioned by innumerable influences, including individuals who left a profound impact on me, personally and professionally. Without them, the culmination of this study would not have been possible.

Thank you, first and foremost, to my family—my parents and siblings, who have always supported my endeavors and made me believe that anything I set my mind to was possible. To my daughter, Evelyn Joyce, who served as my motivation to be a strong female role model for future generations and who reminds me resilience is, perhaps, the most important quality of successful leaders. To my husband, Hank, who humbly and without reservation took on innumerable family roles for me to be successful, serving as a true model of partner equality. Thank you for tolerating me, even though I may be "exhausting."

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To my professional colleagues at Campbell County Public Schools and Winchester Public Schools, thank you for cultivating the soil for change. To Dr. Nicholas Pontius, who saw leadership potential in me when I did not realize it in myself, thank you for not allowing me to take the easy way out. To the Winchester Public Schools executive leadership team and Special Education Department (i.e., Amber Jones, Carla Casella, Elizabeth White, Dr. Erin Kirkland,

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Abstract

Staffing shortages in public schools have reached a crisis level. Although pervasive, this crisis has disproportionally impacted the field of special education. Due to the dual roles of special education teachers, specifically serving as teacher and case manager, and other factors, such as addressing the needs of a highly diverse student population, these teachers are more susceptible to attrition. Alternate pathways to licensure have provided an opportunity to address special education staffing needs; however, these opportunities come with risks, specifically when strategic support is not provided, resulting in the most at-risk teacher and student populations being paired together. Limited research has been conducted about (a) how local school divisions are poised to support alternatively licensed staff and (b) the ultimate impact of alternate licensure and subsequent teacher preparation on student achievement. This study found alternatively licensed teachers' different backgrounds and experiences, when compared to traditionally licensed teachers, required school divisions to be prepared to systematically implement professional development addressing their unique needs. Conducted in an urban school division in Virginia, this study highlighted the outcomes of a district-based professional development series for provisionally licensed special education teachers. Results suggest intentionally designed professional development opportunities following a generalized professional framework positively impact teacher participation, teacher learning, and student achievement for provisionally licensed special education teachers.

DISTRICT-BASED SUPPORTS FOR ALTERNATIVELY LICENSED SPECIAL

EDUCATION TEACHERS: AN ACTION RESEARCH STUDY

CHAPTER 1

INTRODUCTION

Background

Classroom staffing issues have been increasing exponentially, resulting in a staffing crisis in public schools across the United States. The national teacher shortage tripled between the 2011–2012 and 2015–2016 school years (E. Garcia & Weiss, 2019). The shortage was dually influenced by a reduction in teachers entering the field and an increase in teacher attrition. In the United States, people enrolled in a teacher preparatory program decreased by 38% and people completing a teacher preparatory program decreased by over 27% between the 2008–2009 and 2015–2016 school years (E. Garcia & Weiss, 2019; Sutcher et al., 2016). In 2020, the percentage of educators leaving the field increased by 148% (Dill, 2022). A concurrent increase in the total student population and student diversity, such as students qualifying for special education, has further exacerbated this human resource disparity (Sutcher et al., 2016) and required additional teachers to serve the current population (Pitts, 2017). In response to the increased need for teachers, nontraditional teacher preparation approaches for staffing classrooms have expanded, including the integration of staff who are not yet fully licensed. These approaches include alternative certification programs, which most commonly refer to the provisional licensing of degree-holding individuals who have not completed a traditional teacher preparatory program (Ludlow, 2013), and increased hiring of non-licensed staff, such as long-term substitutes (Learning Policy Institute, 2022). Teacher certification data from the Learning Policy Institute (2022) showed over 87,000 teachers across 36 states were not fully certified in the 2015–2016 or

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2016–2017 school years. However, these data underestimate the current staffing climate due to variability in mitigation procedures across states and local districts (Learning Policy Institute, 2022).

Importantly, addressing the teacher shortage through alternate methods, such as fast track licensure or grow-your-own (GYO) program, has many potential benefits. Provisional licensure programs have potential to increase the supply chain, especially in critical need areas such as special education (Bowling & Ball, 2018). Additionally, alternate certification programs may increase diverse representation in classrooms (Delgado et al., 2021). The National Center for Education Statistics (2018) indicated a higher percentage of alternative route teachers were Black, Hispanic, of two or more races, and male as of 2018. Alternative licensure may also increase teacher retention (Ludlow, 2013). However, although alternate routes to licensure may increase teacher diversity and retention, a potential liability for such programs include under preparation of the teacher workforce, which could lead to decreased student achievement and disproportionate representation of noncertified staff teaching minority or at-risk populations. Additionally, the sustainability and overall effectiveness of alternative options are of concern but unknown (2U, Inc., 2020; Johnson et al., 2005; Ludlow, 2013).

One barrier to understanding the true extent of the teacher shortage and what impact alternative pathways may have on teacher performance and student achievement is the variability of mitigation strategies from state to state (Learning Policy Institute, 2022). One state-specific example is the Virginia Career Switcher Alternative Route to Licensure program, created in 2000 through the Senate Joint Resolution 384 and the 1999 Appropriations Act as an alternate pathway to teacher licensure (Virginia Department of Education, 2021). The program accepts the relevant life experiences, achievements, and academic backgrounds of qualifying candidates as

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credentials in place of specific teacher preparatory requirements. Ludlow (2013) noted questions surrounding the sustainability of alternate certification programs, such as the impacts on such programs on local school districts, but the need for emergency or provisional licensure options through alternate pathways is anticipated for the foreseeable future, and it is likely states will prioritize such initiatives. For example, a statewide review of recruitment, preparation, and licensure recommendations for future consideration in Virginia indicated that of the 33 recommendations to address the teacher shortage, 10 explicitly related to alternate pathways and provisional licensure supports (Virginia Department of Education, 2018).

Although alternate licensure pathways seek to increase the number of teachers in classrooms, there are significant limitations to existing alternate licensure programs because they often fail to address considerations like teacher retention and overall teacher effectiveness. For example, in a longitudinal study, Zhang and Zeller (2016) found short-term teacher attrition was comparable between traditionally and alternatively licensed teacher groups but lateral entry teachers were more likely to leave the teaching profession long term. Additionally, Zhang and Zeller (2016) noted, "More lateral entry teachers reported being less sufficiently prepared to teach in the way they were expected to teach" resulting in these teachers falling "victim to the sink-or-swim environment" (p. 81). However, teacher retention for alternatively licensed teachers consistently improved when teachers participated in support opportunities such as professional development, coaching, and mentoring (Carr et al., 2017; Zhang & Zeller, 2016).

In addition to recruitment and retention considerations, teacher efficacy and preparation are critical components to teacher retention and instructional outcomes. Bandura (1977) outlined how an individual's efficacy directly correlated with overall effectiveness through processes of coping, sustenance, and resilience. In the classroom setting, teacher efficacy has a significant

impact on student achievement (Kim & Seo, 2018). Student outcomes are further enhanced by teacher credibility, which includes teacher preparation and overall competence, with one study demonstrating a strong 0.90 effect size on student achievement (Visible Learning, 2022). Kee (2011) analyzed the licensure program features that impact teacher preparedness and suggested a small, yet positive, correlation existed between teacher efficacy and both coursework experiences and length of practice opportunities. Thus, alternatively certified teachers who lack such experiences may feel less prepared to teach than traditionally certified teachers.

There have been mixed conclusions about aspects of teacher effectiveness for noncertified or alternatively certified teachers compared to teachers who are traditionally certification. Darling-Hammond et al. (2005) suggested teachers with standard certification consistently demonstrate a higher level of teaching effectiveness than those with only an alternative certification. Yet, teachers enrolled in alternate licensure programs who were provided targeted professional development produced comparable student achievement results. Likewise, Ludlow (2013) reported "no statistical difference in student achievement between traditional and alternatively prepared teachers" (p. 447) and Bos and Gerdeman (2017) asserted teachers participating in alternate licensure pathways programs teach "no better or worse than their more traditional counterparts, based on student achievement" (para. 3). Although teacher preparation matters, the limited variability in student outcomes between alternate and traditional licensure pathways has suggested alternate pathways to certification may be an effective approach to dually address the teacher shortage and the promotion of high-quality instruction when strategic supports, like targeted professional development, are in place. Additionally, Morettini (2014) suggested formal alternate preparation models positively impacted teacher recruitment, retention, and self-efficacy. As summarized by Kee (2011), "Teachers who have

more comprehensive preparation experiences will feel well prepared, will consequently persist in the profession, and, ultimately, will teach more effectively that their less well-prepared peers" (p. 24). In addition to the quality of teacher preparatory experiences, logistical elements related to the development and implementation of such programming may also play a role in teacher outcomes. Although Gist (2019) suggested teacher supports were most effective when provided locally to respond to district-specific needs and expectations, Yin and Partelow (2020) reported 68.2% of alternative certification programs were accessed through for-profit national or international organizations not associated with institutions of higher education and only 18.8% of programs occurred at the regional, district, or school level.

Compared to the total teacher population, special education teaching positions are more at risk for attrition, subsequent teacher vacancies, and staffing through alternate methods than standard teacher licensure more often. On average, school districts experience a 25% turnover rate of special education teachers (Iris Center, 2021). National teacher licensure data indicated approximately 20% of special education teachers entered the field through an alternative route to certification during the 2015–2016 school year (National Center for Educational Statistics, 2018). National data mirror state-specific data in Virginia, where an average of 15% of special education teachers were operating under a provisional license during the 2019–2020 school year (Joint Legislative Audit and Review Commission, 2020).

Importantly, special education teachers uniquely hold two distinct roles for their students: case manager and provider of specially designed instruction defined by the Individuals with Disabilities Education Act (IDEA, 2004). Per IDEA (2004), special education teachers must demonstrate professional competence with regulated compliance standards and adherence to state special education regulations. This case management role includes processes supporting

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student evaluation, eligibility for services, and individualized learning plans. These requirements are in addition to general teaching duties such as lesson planning and the provision of appropriate instruction. Responsibility for these dual roles can exacerbate problems including increasing ambiguity, dissonance, and teacher overload (Bettini et al., 2017; Billingsley, 2004; Billingsley et al., 2019), which may further compound efficacy and retention issues for special education teachers.

Statement of the Action Research Problem

During the 2016–2017 school year, 7% of Virginia's total teacher workforce operated under provisional licenses and, of that total, nearly 30% were special education teachers (Learning Policy Institute, 2022). In the 2019–2020 school year, Virginia special education teachers were almost 3 times more likely to operate under a provisional license than other content areas (Joint Legislative Audit and Review Commission, 2020). National and state trends in teacher licensure were mirrored at the local level. Hiring trends for special education teachers in Winchester Public Schools, an urban school district in Northern Virginia, showed 38% of special education teachers were not fully licensed over the 2021–2022 school year. Of those not fully licensed, 61% did not meet the qualification for provisional license, including teachers who were in the process of completing licensure coursework but had not yet satisfied the minimum requirements for provisional licensure; they were classified as long-term substitutes. According to district data, approximately 39% of teachers qualified for a temporary, 3-year provisional license. Additionally, district retention trends over a 5-year period indicated an increase of special education teacher attrition, from 6% of the total teacher attrition in 2016 to 17% in 2021, despite special education teachers comprising only 10% of the total teacher population in the district.

The increase in non-licensed and provisionally licensed teachers resulted in a decrease of overall teacher preparation in both coursework exposure and preservice experiences (e.g., practicums, student teaching). The dual roles of special education teachers required additional targeted and multipronged supports for those who were non-licensed and provisionally licensed to address both compliance indicators and instructional delivery. In the absence of formal teacher preparatory experiences, school districts must be prepared to take the lead in providing targeted professional development to meet the needs of non-licensed and provisionally licensed teachers. Failing to provide needed professional development puts teacher performance and student achievement at risk and results in classrooms where the least prepared teachers are tasked with teaching arguably the most vulnerable student population.

Context of the Action Research Problem

I conducted the study in a small, urban, majority–minority public school district in Northern Virginia, approximately 65 miles outside of Washington, D.C. The school district comprised seven schools, including four elementary schools, one intermediate school, one middle school, and one high school, with a total student population of approximately 4,100 and 400 full-time teachers.

District data identified that of the total student population, 608 students were eligible for special education services. Providing services to the 608 qualifying students were 61 full-time special education service providers, including special education teachers and related services providers such as speech–language pathologists, occupational therapists, and physical therapists. Of the identified full-time service providers, 47 were special education teachers. A review of hiring trends across 5 years in the school district indicated an average of seven new special education teachers annually, or about 15% of the total special education teaching force.

However, the number of new special education hires consistently increased over time and resulted in 21% of special education staff being newly hired in the 2021–2022 school year. The new hire population included more non-licensed or provisionally licensed hires, resulting in 38% of the total special education teaching staff identifying as either non-licensed or provisionally licensed in the 2021–2022 hiring cohort, according to district data.

Information Related to the Intended Stakeholders

This study addressed the professional development needs related to teacher preparation and subsequent instructional outcomes of special education teachers who are non-licensed or provisionally licensed. Participating special education teachers served as primary stakeholders of the professional development through which questions related to participation, learning, organizational support, and application were answered. Students, as the recipients of instructional and case management practices targeted in the professional development series, served as primary beneficiaries because student achievement was a key measure used to answer questions about teacher effectiveness. Secondary stakeholders included administrators at the school and district levels, including principals and department directors, specifically those representing human resources, elementary, secondary, and special education departments. Based upon the outcomes of the initial study, secondary stakeholders were informed of teacher and student outcomes to aid in future decision making related to staff professional development like committing financial or other resources to continue supporting professional development opportunities and generalizing program outcomes to other staff populations such as general education teachers or teacher assistants.

Conceptual Framework

      Local school districts across the nation are inconsistently equipped to provide targeted and ongoing professional learning to support the growing needs of non-licensed or alternatively licensed teachers (Sutcher et al., 2016). Additionally, professional development is often regarded as having little impact on an individual's day-to-day educational practice (Darling-Hammond et al., 2017; Guskey, 2000). Therefore, the provision of professional development must be intentionally executed and result in meaningful change to be considered successful. Guskey (2000) described affective change as the ultimate success criteria for professional development. Simply providing professional development will not generate significant changes in practice or ensure these practices are maintained or generalized. In the absence of affective change, teacher commitment, self-efficacy, and sustained implementation of the professional development targets are likely to result in underrealized outcomes. Commitment and implementation by teachers are crucial components to address teacher competence, teacher retention, and student achievement, especially for highly vulnerable teacher populations such as under-licensed teachers who serve in special education roles. Accordingly, Guskey's (2000) model of teacher change served as the conceptual framework for the study because it suggested professional development as the first step in changing a teacher's practice. Only after changes in classroom practice and student learning are observed, as a result of professional development, can a teacher's practice be considered changed (see Figure 1).

Figure 1

Model of Teacher Change
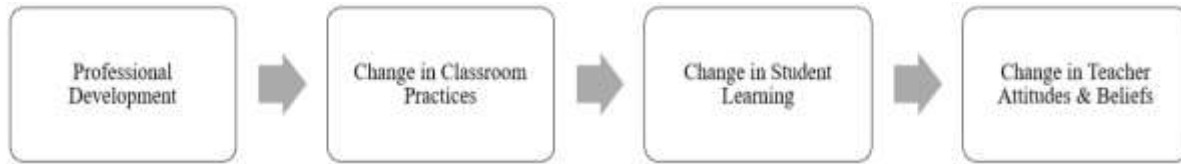
Note. From "Evaluating Professional Development," by T. R. Guskey, 2000, p. 139. Corwin Press. Copyright 2000 by Corwin Press. Reprinted with permission.

In the current study, teachers participated in professional development opportunities, as identified in Stage 1 of the model of teacher change, directly related to integration in current classroom practice, highlighted in Stage 2 of the model (Guskey, 2000). Change in classroom practices and student learning, outlined in Stages 2 and 3, were measured through professional development session surveys completed by participants, self-assessment tools completed by participants and school administrators, and follow-up interviews with specific participants and administrators. The present study sought to measure changes in teacher and student outcomes, but the aspirational measurement of change in teacher attitude and beliefs, as highlighted in Stage 4, could be the focus of future action research cycles. However, Stage 4 outcomes were not a focus for this inquiry.

Research Questions

This study evaluated a 7-part professional development intervention for non-licensed and provisionally licensed special education teachers that targeted skills and strategies related to case management and high-leverage practices (HLPs). Guskey (2000) outlined five levels for evaluating professional development: (a) participant reaction, (b) learning, (c) organization

support and change, (d) use of new knowledge and skills, and (e) student learning outcomes. I sought to answer the following research questions (RQs):

1. What logistical features of district-led professional development do non-licensed and provisionally licensed special education teachers indicate are most important to their successful participation in the professional learning experience?

2. What instructional experiences of district-led professional development do non-licensed and provisionally licensed special education teachers consider to be most relevant to case management and instructional delivery responsibilities?

3. To what degree does the targeted professional development align with what teachers perceive to be the expectations of their school administrators?

4. To what degree do non-licensed and provisionally licensed special education teachers incorporate targeted professional development into their professional practice?

5. To what degree do participating teachers and administrators perceive the impact of targeted professional development on student learning?

Action Research Model

Stringer and Ortiz Aragon (2021) described the look–think–act model, a cyclical approach that systematically guides the investigation of a problem and uses feedback loops to plan, implement, and evaluate. The current study incorporated feedback loops (see Figure 2) through the development of formalized professional development for provisionally licensed special education teachers (i.e., planning), the delivery of the professional development (i.e., implementation), and the review of outcomes of the professional development (i.e., evaluation).

Figure 2

Action Research Model

Note. From "Action Research," by E. Stringer and A. Argon, 2021, p. 10. SAGE Publications. Copyright 2021 by SAGE Publications. Adapted with permission.

Description of Intervention
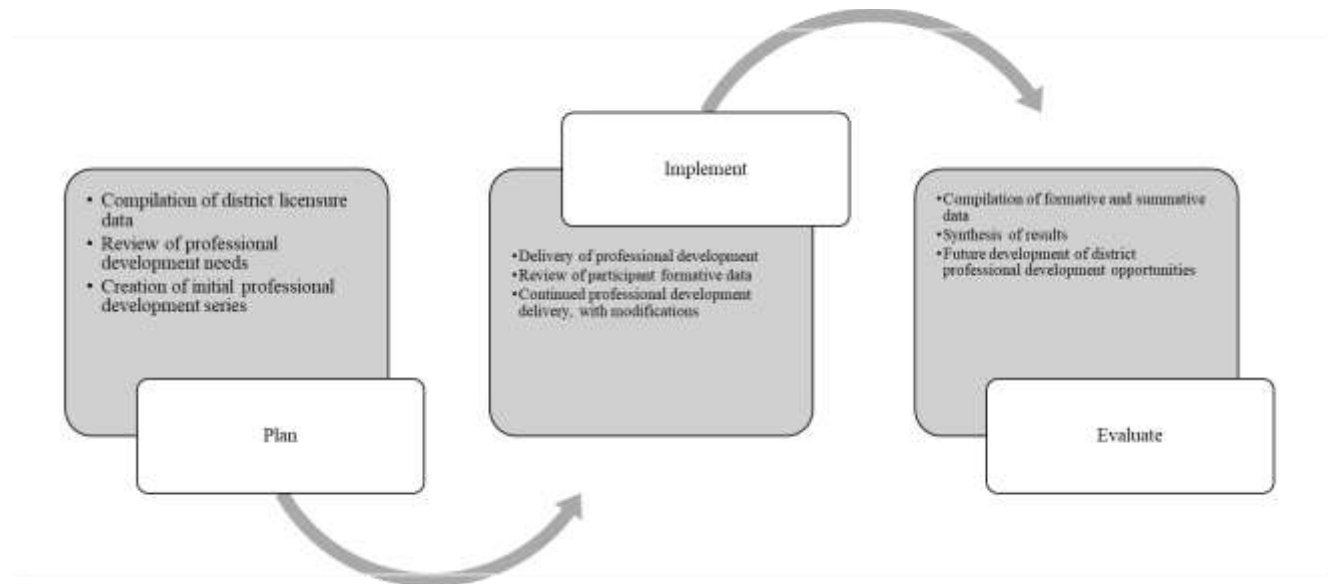
This study addressed formative and summative outcomes of the development and delivery of district-led professional development for non-licensed and provisionally licensed special education teachers. Identified special education teachers participated in a sequence of district-led professional development activities that emphasized elements of instructional practice and special education case management prescribed by the Council for Exceptional Children (2015). As outlined by the Council for Exceptional Children's preparation standards, successful special education teachers demonstrate competence in areas of learner development and individual learning differences, learning environments, curriculum content knowledge, assessment, instructional planning and strategies, professional learning and ethical practice, and collaboration. These key indicators are captured in 22 HLPs across four domains, including

assessment, collaboration, instruction, and social/emotional/behavioral (McLeskey et al., 2017).

For the purpose of this study, which emphasized case management and instruction, professional

development focused on eight HLPs outlined in the assessment and instructional categories.

These HLPs were identified because the research supporting them was strong and they were

applicable to a broad range of special education staff, which was an appropriate consideration

due to the diverse scope of practice for participants.

The delivery of the outlined special education content, emphasizing the HLPs in special

education, followed a multimodal professional development series including opportunities for

direct instruction, independent work, collaboration, and explicit feedback. A districtwide

professional development design (Guskey, 2000) was implemented, integrating the Standard for

Professional Learning (Learning Forward, 2011), which emphasized learning communities,

leadership, resources, data, learning designs, implementation, and outcomes.

Definitions of Terms

The following terms are referenced throughout the study:

- *Alternative licensure programs* are also referred to as alternative certification

  programs or alternative route to licensure programs. They are nontraditional pathways

  to teacher certification as opposed to completion of a formal teacher education

  program. Although traditional teacher education programs require a degree in

  education, completion of specific practicum experiences, and formal student teaching,

  alternative programs recognize a variety of bachelor's degrees combined with the

  completion of approved coursework and experiences to suffice licensure requirements

  (Virginia Department of Education, 2021).

- *Case management* refers to the actions of an identified case manager, typically a special education teacher, who is charged with implementing special education activities for eligible students as defined by IDEA (2004; Virginia Department of Education, 2010). Examples of activities include data collection, progress reporting, the provision of special education services, supervising the implementation of accommodations, and facilitating individualized education program (IEP) reviews.

- *High-leverage practices (HLPs)* are the set of "22 practices intended to address the most critical practices that every K–12 special education teacher should master and be able to demonstrate" (Council for Exceptional Children, 2022, para. 2). These practices are highly used in the classroom setting and emphasize four major practices areas: collaboration, assessment, social/emotional/behavioral, and instruction.

- A *licensed special education teacher* refers to a contracted special education teacher who meets the qualifications for licensure regulations in special education as prescribed by the Code of Virginia Licensure (Licensure Regulations for School Personnel, 2018).

- A *non-licensed special education teacher* refers to an individual fulfilling a long-term substitute or other terminal contract assigned to special education teaching duties who does not meet the requirements of a licensed special education teacher (Licensure Regulations for School Personnel, 2018) or provisionally licensed teacher (Licensure Regulations for School Personnel, 2022).

- A *provisionally licensed special education teacher* refers to teachers who are afforded a "nonrenewable license valid for a period not to exceed 3 years issued to an

individual who has allowable deficiencies for full licensure" (Licensure Regulations for School Personnel, 2022, para. 5, as prescribed by the Code of Virginia).

- *Professional development*, also referred to as *professional learning*, refers to activities that:(a) are an integral part of school and local educational agency strategies for providing educators with the knowledge and skills necessary to enable students to succeed in a well-rounded education and to meet the challenging state academic standards; and (b) are sustained, intensive, collaborative, job-embedded, data-driven, and classroom-focused. (Learning Forward, 2022, paras. 4–5)

- *Specially designed instruction* is defined by the IDEA (2004) as: Adapting, as appropriate to the needs of an eligible child under this part, the content, methodology, or delivery of instruction to (a) to address the unique needs of the child that result from the child's disability; and (b) to ensure access of the child to the general curriculum. (para.1)

The current teacher staffing landscape, specifically in the field of special education, requires school leaders to creatively address the development of the teacher workforce. The implemented action research study, following the Guskey (2000) model for teacher change, evaluates the initial outcomes of a district based professional development series for provisionally licensed special education teachers. In the following chapters, a review of the literature, implementation of the study, outcomes, and considerations are explored.

CHAPTER 2

REVIEW OF RELATED LITERATURE

As explored in the previous chapter, many factors impact the teacher supply chain and subsequent professional development needs for teachers entering the field after 2020. An understanding of existing research surrounding the historical context of teacher preparation and trends is necessary to respond appropriately. Based on the wide range of research about professional development, it is important to consider how teacher preparatory needs have been informed by existing research surrounding professional development and teacher evaluation. Teacher support, and the content of such supports, was considered in the context of this study, namely what was relevant to the practice of special education teachers. This literature review explores existing research about teacher preparation, professional development, and the use of high-leverage practices (HLPs). It also addresses grow-your-own (GYO) programs.

Teacher Preparation and GYO Models

Research has indicated a growing lack of teacher preparation. An analysis of staffing cycles by the National Commission on Teaching and America's Future (2009) found the average teaching experience level was 15 years in 1986–1988; however, the average experience level in 2007–2008 was just 2 years and one quarter of teachers had less than the average. Due to the increasing need for teachers and a decrease in overall teacher experience, the continuum of teacher preparatory options has expanded, ranging from standard 4-year collegiate experiences to GYO programs. Teacher preparation can affect a range of outcomes, including teacher performance and retention (Darling-Hammond et al., 2005; Zhang & Zeller, 2016) and student

achievement (Darling-Hammond et al., 2005). One well-known and researched GYO teacher preparatory program is Teach for America. In a longitudinal comparative analysis across certification types, including certified, noncertified, and Teach for America teachers, Darling-Hammond et al. (2005) found nontraditionally certified teachers were disproportionally more likely to be teaching low-income and minority students. Additionally, Teach for America recruits had higher attrition rates than other teaching groups, certified or noncertified, regardless of certification level. These results implied an inequitable pairing of less qualified teachers with more at-risk student populations, which could exacerbate achievement gaps. Further affirming this finding, Ludlow (2013) demonstrated high-minority and high-poverty schools and districts were more likely to rely on non-licensed teachers to fill vacancies than nonminority or more affluent districts.

Such trends related to alternately licensed teachers are not restricted solely to teacher assignment; rather, they also impact classroom results. Teachers with a standard certification have consistently demonstrated a higher level of effectiveness with a moderate to strong correlation across almost all administered achievement tests compared to noncertified or alternately certified teachers (Darling-Hammond et al., 2005). However, student achievement was comparable for Teach for America certified teachers and other certified teachers. This consistency in student achievement demonstrated between Teach for America certified teachers and traditionally certified teachers implied that, although certification matters, the pathway to certification is just as important. Despite such outcomes, certification alone does not lead to teacher retention, which is another key indicator for student achievement (Billingsley, 2004; Darling-Hammond et al., 2005; Zhang & Zeller, 2016). Although potential pathways to certification continue to emerge and expand the variety of options, the GYO approach serves as a

broad lens for understanding state and local efforts to address the teacher shortage while improving teacher preparation.

Teacher preparation is a critical component of teacher effectiveness (Darling-Hammond et al., 2005). Whether considering certification qualifications, the overall quality of teacher preparation programs, or actual components of teach induction, experience matters (Darling-Hammond et al., 2005; Zhang & Zeller, 2016). Although high-quality teacher preparation is important, addressing the human resource issues related to the teacher shortage is equally vital. The GYO teacher preparation programs are one way this issue has been addressed. However, Gist (2019) found extreme variability in programming, with approaches ranging from formalized programs through university partnerships to local, district-based efforts. Programs also ranged in purpose from licensure acquisition to actual performance indicators. As a result, Gist highlighted how GYO programs may be developed to serve four distinct purposes. The first purpose relates to economic development, in which such programs are developed to address supply and demand needs. Workforce development, the second common reason for GYO program development, addresses diversity needs related to the teaching profession and equity in the hiring process. The third lens relates to educator preparation, in which GYO programs are developed to support training and proficiency. The final purpose, justice, addresses the transformation of education through the lens of contemporary needs and social justice. Each of these motivators influence GYO program development in unique ways given the context (e.g., teacher population, district needs). A. Garcia (2020) reviewed GYO programming across the 50 states and further affirmed the needs-based nature of GYO programs and the extreme variability in such programming. A. Garcia highlighted five key trends from the analysis: (a) GYO programs are developed for different needs, (b) there is extreme variability in state implementation of such programs, (c)

policies for programs are common yet funding is inconsistent, (d) pathways for high school students are the most common form of GYO programs, and (e) paraeducator programs are also widely common.

Although variability across teacher preparatory programming is noted, the existence of these differences is supported by research. Sutton et al. (2014) suggested the development of GYO and alternative teacher preparatory programs are directly influenced by local needs related to staffing and student demographics, and these programs should be uniquely tailored to address both student and staffing variables. Sutton et al. explored implications related to local districts and special education teachers. Using a sample of 638 teachers in South Carolina across 8 years, the researchers explored if a state-developed GYO program supported equitable distribution of special educators across rural divisions and to what extent, if any, teacher capacity differences in rural versus nonrural areas was the result of such programming. Results indicated the state-created GYO program resulted in statistically significant differences in licensure completion. Additionally, a significantly higher completion rate was noted for participants from rural versus nonrural divisions.

Multiple variables impede accurately understanding teacher preparation needs and how to comprehensively address them. Categorical differences in licensure (Darling-Hammond et al., 2005; Learning Policy Institute, 2022), limited longitudinal data (A. Garcia, 2020; Gist, 2019), and highly specific purposes and implementation models of supporting teacher preparation (A. Garcia, 2020; Gist, 2019; Sutton et al., 2014) affect the applicability and generalization of current research surrounding the impact of teacher licensure practices. Additionally, a common definition of what effectiveness is must be determined to promote effective preparation; effectiveness could be considered the recruitment and retention of teachers or linked to teacher

quality, but without firm agreement, measuring the impact of teacher licensure practices is variable. Trends in teacher preparatory practices were summarized in existing literature but available research lacked the evaluation of impact of these programs on teacher effectiveness and student achievement, which was a clear gap in the available research. Additionally, research surrounding teacher preparation has heavily favored licensure supports but has not thoroughly addressed the niche of teachers who are provisionally licensed. Although certification and preparation are a logistical need for staffing classrooms, these measures leave questions related to teacher retention, efficacy, and student outcomes unanswered. Subsequently, educational leaders should proceed cautiously when developing GYO programs.

Professional Development

Research about providing professional development must be considered with the developmental needs of novice teachers. Randel et al. (2016) found a statistically significant correlation between teacher professional development and professional knowledge but not between either teacher practice or enhanced student outcomes. Harris and Sass (2007) found no relationship between professional development and teacher productivity. However, Hill et al. (2013) suggested there are significant limitations related to evaluating the impact of professional development on teacher and student outcomes, including programming development and implementation variability, limited programming samples, and difficulty isolating specific professional development features to evaluate. Despite conflicting research about teacher professional development and classroom outcomes, Harris and Sass suggested a strong, positive correlation exists between content specific professional development and teacher productivity.

At the division level, professional development topics should align with comprehensive programming and be a collaborative effort between teachers and administrators (Choy et al.,

2006). Researchers have indicated effective professional development is content focused,

incorporates active learning, supports collaboration, uses models of effective practice, provides

coaching and expert support, offers feedback and reflection, and is sustained in duration

(Darling-Hammond et al., 2017; Kennedy, 2016; Sims & Fletcher-Wood, 2021). Additionally,

when professional development incorporates prescribed elements of high-quality professional

development, teacher efficacy and perception of impact on student achievement increase

(Lowden, 2006).

Evaluation Models

Formal professional development models were originally applied to the business sector

and focused on work productivity. In the 1950s, Kirkpatrick proposed a linear employee training

model that identified business needs; designed, implemented, and evaluated learning programs;

and measured a return on expectation (Kirkpatrick & Kirkpatrick, 2009). The model suggested

four levels of training outcomes, including participant reactions (i.e., Level 1); learning (i.e.,

Level 2); behavior (i.e., Level 3); and results (i.e., Level 4), with training and reinforcement

situated as the ultimate indicator of professional development success. Although the Kirkpatrick

and Kirkpatrick (2009) model was created for and initially applied in the business field, it has

been applied successfully to the education field (Hanover Research, 2014; Paull et al., 2016).

The model framed participant knowledge and beliefs as perquisites to behavioral change

(Hanover Research, 2014) but failed to address the unique impact learning can have on an

individual's beliefs, especially when working with novice teachers whose beliefs or assumptions

may not be fully or accurately developed. Additionally, the model emphasized learning,

behavior, and results, which failed to address contextual considerations related to the overall

participant experience and the role both participant experience and the organization play in achieving successful outcomes.

Similar to the linear employee training model, the Guskey (2000) model of professional development evaluation also proposed a linear evaluation path that integrated participant reactions and behaviors. Five levels were proposed in this model, including reactions (i.e., Level 1); learning (i.e., Level 2); organization support and change (i.e., Level 3); use of knowledges and skills (i.e., Level 4); and learning outcomes (i.e., Level 5; Guskey, 2000). This model expanded the Kirkpatrick and Kirkpatrick (2009) model by incorporating the role of the organization to support and change as critical elements to successful professional development. This change implied professional development must be an embedded aspect in the organization and, in the absence of alignment between the organization and professional development, outcomes may not be achieved (Hanover Research, 2014). Further, failing to consider the role the organization plays in evaluating professional development could impact the understanding of teacher performance and student achievement results.

The Guskey (2000) model of professional development evaluation was developed for an education context and evaluating success used the agent of teacher change, meaning changes in attitudes and beliefs occur only after teachers incorporate a change in classroom practice and experience success via a change in student learning (Guskey, 2000). The cause and placement of the affective change differs distinctly from other models, which indicate individual's beliefs and attitudes change prior to behavioral change. However, Guskey (2000) said, "Current evidence on teacher change, indicates that this sequence of change events is inaccurate, especially with regard to professional development endeavors involving experienced educators" (p. 139).

Teacher Professional Development Evaluation

A key indicator of successful professional development in education is the outcome about the impact of teacher practice and student achievement. In a review of current teacher professional development literature, Darling-Hammond et al. (2017) found successful professional development included seven key elements: (a) active learning, (b) coaching and expert support, (c) collaboration, (d) content focus, (e) feedback and reflection, (f) modeling, and (g) sustained duration. However, because these elements overlap, it was difficult to determine to what extent individual elements, or the interaction of multiple elements, impacted teacher practice (Darling-Hammond et al., 2017; Nordengren, 2020). Similar to measuring the impact of professional development on teacher practice, quantifying student achievement is a barrier to further evaluating the effects of professional development. In a meta-analysis, Blank and De la Alas (2009) found a wide range of outcome measures were applied to evaluate the effects of professional development on student achievement. These measures ranged from formalized criterion-referenced assessments, which were vetted for reliability and validity, to locally created tools specific to the professional development topic or session. Due to the lack of agreement about what constitutes student achievement, consensus on the impact of a given professional development activity on student achievement was difficult to determine. Specifically, research related to the evaluation of professional development to support special education teacher performance and outcomes for students with disabilities has been relatively narrowly focused on student-specific needs (e.g., disability category) or service delivery model. Evaluating the impact of professional development for special education teachers has been challenging primarily due to the multifaceted nature of this specific teaching position (Bettini et al., 2017; Woulfin & Jones, 2021).

Evaluation Methodology

The complex considerations with evaluating teacher professional development—due to the variety of delivery models, content, and outcome measures (Bettini et al., 2017; Darling-Hammond et al., 2017; Nordengren, 2020; Woulfin & Jones, 2021)—indicated a multimodal evaluation method was necessary to fully capture the impact of a single professional development experience. Evaluating professional development relies heavily on the participant experience; therefore, evaluation methodology must incorporate such perspectives. In research on participant-directed evaluation, Ham (2010) found limitations to both internal and external evaluation methodologies. However, Ham (2010) concluded:

> By placing participant teachers at their centre, models of PD [professional development] based on action research have inherent potential to closely link both teacher effects and student outcomes directly back to aspects of the PD experience to provide a rich evidence base about those effects and outcomes from the participants' (as opposed to the PD providers' or even a researcher's) perspective. (p. 27)

Following a teacher-centered approach, the relationship between the professional development evaluation model and the instrumentation used for evaluation must be considered methodologically. Related to Guskey's (2000) 5-level model, different methods were appropriate for different levels of questions. Evaluation forms or questionnaires were most used to gauge reaction-based information. Structured forms yield the benefit of standardized scoring and free response items are helpful in "identifying unintended reactions that may not have been addressed" (Guskey, 2000, p. 102) in other, more structured questions. Therefore, mixed question sets may be most helpful for evaluating aspects of professional development. Participant learning is evaluated in Level 2 of Guskey's model and formal pre- and post-tests

afforded a comparative measure to quantify participant growth, including a more precise

determination of specific professional development measures. Additionally, using pretest data

can formatively support future professional development experiences; however, there are

limitations to pre-test measures, including participants' embarrassment or underrating of their

knowledge. Guskey (2000) shared, "Because organization support and change can take so many

different forms, so, too, can the means for gathering such data" (p. 166). As a result, a multitool

evaluation approach, which may include observations, record reviews, surveys, and interviews,

should be considered. Likewise, a multitool approach was also recommended to evaluate the use

of new knowledge and skills, as seen in Level 4 of the model, and should include observation,

participant and supervisor interviews, questionnaires, implementation logs, and portfolios.

However, the difference between questions on Levels 1–3, which are highly based upon the

participant experience, compared to Level 4 questions, which focus on more objective

considerations, are distinct. Therefore, it is important for a consistent understanding of "accurate,

appropriate, and sufficient indicators of use" (Guskey, 2000, p. 188) be identified and

incorporated into the evaluation tool. Finally, although the emphasis on student learning

outcomes evidenced in Level 5 of the Guskey model was suggestive of quantitative measures

(e.g., teacher-created assessments, performance-based measures, grades, school records),

qualitative measures must also be considered. As a result, questionnaires and interviews can be

an appropriate method for evaluating Level 5 questions.

HLPs

Quantifying teacher effectiveness and subsequent teacher performance is difficult but

critical because these concepts serve as the basis for most professional development in education.

Unique classroom contexts, variation in student population, and content impact the determination

of what a teacher should be doing to achieve desired outcomes. As early as 1968, researchers sought a flexible yet concrete measure of teacher behavior, resulting in the taxonomy of teaching behaviors (Baral, 1968). This practice-based system led to further research that highlighted specific teaching skills that maximized student learning and teacher effectiveness. More recently, McDonald et al. (2013) supported the need for unifying language and expectations for teacher practice, which was further affirmed by Forzani's (2014) assertion that a "common language and collective activity" (p. 378) are necessary. Forzani (2014) continued:

> Without a common framework, the field is limited in three major ways. First, we are limited in our ability to investigate how much and in what ways the core practices themselves need to change as the context of their implementation changes. Second, we are limited in our ability to develop teacher education pedagogies that support teachers in learning to enact core practices. And third, the lack of a common language limits our ability to engage in research aimed at understanding the impact of core practices and supporting pedagogies on K–12 student learning. If we continue to develop and identify core practices for K–12 teaching without simultaneously considering how we will prepare teachers to enact those practices, implementation will fall short of leveraging the majority of teacher educators in the 2000 plus institutions to engage this work. Our argument is not that one needs to develop a lock step prescription for how to prepare teachers to enact core practices, but rather that as a field we would benefit from a simple framework, applicable across contexts, that would allow us to learn with and from one another. (p. 381)

Further, O'Flaherty and Beal (2018) confirmed the need for systematic, evidence-based competencies and HLPs for beginning teachers given the current teacher preparatory landscape.

Without such systematization, it would be difficult for teachers to operate in the complex educational landscape or to enhance teacher accountability.

HLPs in Special Education

Although support has increased for a flexible framework to establish common language and expectations for teacher practice, barriers related to differences in student demographics and subject matter make it difficult to generalize broadly. In the special education field, atypical developmental patterns and the unique nature of each student's disability particularly impact generalized practice guidance. As a result, a narrower focus on HLPs must be considered.

McLeskey et al. (2017) introduced 22 HLPs for special education that all special educators should proficiently demonstrate, including fundamental methods for collaboration, assessment, social/emotional/behavioral learning, and instruction using available research. To evaluate the implementation of HLPs in special education, Nelson et al. (2021) conducted a systematic review of meta-analyses of McLeskey et al.'s standardized fundamental methods. I investigated the frequency of research associated with each of the 22 HLPs, the relationship between the HLPs and specific disability categories, and the metrics and outcomes associated with each HLP based on available research. In total, Nelson et al. (2021) reviewed 75 meta-analyses resulting in 340 summary statistics. Results indicated 85% of the identified HLPs had a moderate to large effect on one or more disability categories. Such a high impact factor across the broad range of disability categories suggested professional development for special education teachers should target the HLPs in special education, which strongly aligns with relevant teacher practice and improved student outcomes. However, the authors cautioned the broad application of practices across a wide range of student needs, including disability category (Nelson et al., 2022).

Researchers have proposed multiple modalities of use, including teacher induction, for applying HLPs in special education. In their proposed instructional framework for special education teacher induction, Billingsley et al., (2019) outlined how using the HLPs in special education could promote coherence across messages in professional development and mentoring, teacher evaluation, collaboration, instructional resources, and scheduling, which could impact teacher effectiveness, commitment, retention, and student learning outcomes.

Selected HLPs

The compiled research syntheses from the Council for Exceptional Children and CEEDAR Center (McLeskey et al., 2017), which outlined the individual research basis for each HLP, guided the selection of HLPs incorporated into the present study. In the next sections, the seven selected HLPs and the research basis for their inclusion in the study are presented; the HLPs retain the numbering from McLeskey et al.'s (2017) work.

HLP 4. HLP 4 is: Use multiple sources of information to develop a comprehensive understanding of a student's strengths and needs. McLeskey et al. (2017) stated, "Students with disabilities present a wide range of both strengths and needs, in a variety of areas" (p. 42). As a result, multiple sources of information are required to compile a comprehensive profile of a special education student. Sources may include multidisciplinary assessments, discussions with family members, curriculum-based measurement data, student interviews, inventories, checklists, work samples, and direct observation. Consequently, McLeskey et al. (2017) reported:

> Studies of effective special education teachers have shown that they have a deep
> knowledge of students and how their students are learning in a particular area. These
> teachers are able to describe their students' academic behavioral, and motivation needs in
> great detail. (p. 44)

HLP 5. HLP 5 is: Interpret and communicate assessment information with stakeholders to collaboratively design and implement educational programs. A multidisciplinary approach is required to develop individualized education programs (IEP) by the Individuals with Disabilities Education Act (IDEA, 2004), and teams must be comprised, at minimum, of a general education teacher, a special education teacher, a local education agency representative, and a student's parent or guardian. IDEA (2004) pointed out "research suggests that involving parents in the IEP process holds the potential for improving implementation and student outcomes" (p. 47), making parents or guardians particularly important to the collaborative team approach.

HLP 6. HLP 6 is: Use student assessment data, analyze instructional practices, and make necessary adjustments that improve student outcomes. As outlined by the Council for Exception Children (McLeskey et al., 2017), successful special education teachers use a variety of data to make formative decisions. Although research has suggested using formative assessments is weakly correlated with student achievement, these assessments are a "logical and pragmatic approach to continuous improvement that leads to more effective instructional practices" (McLeskey et al., 2017, p. 49).

HLP 8. HLP 8 is: Provide positive and constructive feedback to guide students' learning and behavior. According to the Council for Exceptional Children and CEEDAR Center (McLeskey et al., 2017), a large body of research showed providing feedback effectively improved student achievement, including research conducted by Hattie (2008) in which feedback was noted to have significant positive impact on student achievement. However, of critical importance to the effectiveness of the feedback were the clarity and specificity of feedback, timeliness of delivery, connection to faulty interpretations, and connection to the learning goal (McLeskey et al., 2017).

HLP 13. HLP 13 is: Adapt curriculum tasks and materials for specific learning goals. The adaptation of curriculum tasks and materials can include making substitutions, simplifying content, and highlighting key concepts to make instruction more accessible for students with disabilities (McLeskey et al., 2017). However, limited research exists on what adaptations translate into the classroom environment, resulting in the majority of research focusing on the application of graphic organizers. Hattie (2008) showed the use of graphic organizers generated positive, medium effect size of 0.57. However, research conducted by Nesbit and Adescope (2006), indicated that "instructional effects are greater when instruction focuses on the main idea rather than supporting details" (p. 74).

HLP 15. HLP 15 is: Provide scaffolded supports. The provision of scaffolded supports means intentionally using enhanced instructional supports and then gradually phasing the supports out as students increase their instructional proficiency (McLeskey et al., 2017). Such scaffolds take many forms and use a variety of materials and technologies. The Council for Exceptional Children (McLeskey et al., 2017) highlighted evidence that suggested medium to high gains in reading comprehension achievement when scaffolded supports were used. Additional research has suggested scaffolding can be particularly helpful to students with learning disabilities (McLeskey et al., 2017).

HLP 18. HLP 18 is: Use strategies to promote active student engagement. Klem and Connell (2004) found student engagement was a strong predictor of academic and behavioral student achievement. This correlation implied the impact of positive teacher–student relationships. Consequently, to address the wide range of student strengths, needs, and preferences of students with disabilities, "early, positive, and consistent student engagement

strategies should be used [by teachers] to promote favorable academic and behavioral outcomes"
(McLeskey et al., 2017, p. 87).

Summary

Literature has suggested teacher preparation matters; however, the type of preparation
was not the sole indicator of teacher performance or student achievement. Rather, the quality of
the preparation, which included relevance, support, and applicability, were more predictive of
teacher success. Many studies have suggested alternate pathways to teacher licensure could
improve the teacher shortage crisis, but the available research has failed to address the impact of
these alternate pathways on teacher performance and student achievement.

Through professional development, educational leaders can address the preparation needs
associated with alternately licensed teachers; however, to be successful, professional
development must be content focused, incorporate active learning, support collaboration, use
models of effective practice, provide coaching and expert support, offer feedback and reflection,
and be sustained in duration (Darling-Hammond et al., 2017; Kennedy, 2016; Sims & Fletcher-
Wood, 2021). As with any intervention, professional development must be evaluated to ensure a
value-added outcome. There are multiple models of professional development evaluations, which
typically include participant reactions, behaviors, and outcomes; however, different models
position the role of affective change differently.

Guskey's (2000) model of professional development evaluation positions affective
change as an outcome of professional development, as opposed to an antecedent, which supports
an action research approach to the creation of teacher professional development. Variability in
teacher experience and credentials, views on student achievement, and subsequent effects on
evaluation measures can be barriers to effectively evaluating professional development for

teachers. As a result, a multitool, mixed-method evaluation approach of professional development for teachers is the most appropriate based on a review of current literature. Professional development planning and implementation are important, but the content of the professional development must be equally considered. Effective professional development should be content specific and applicable to the participating teacher population. Consequently, an emphasis on HLPs in education is a promising approach to align teacher practice and student achievement (Baral, 1968; Forzani, 2014; McDonald et al., 2013; O'Flaherty & Beal, 2018). The HLPs in special education provide a sound research base for the skills required specifically of special educators in the areas of collaboration, assessment, social/emotional/behavioral skills, and instruction (Billingsley et al., 2019; McLeskey et al., 2017; Nelson et al., 2021).

As outlined in the chapter, the promise of locally created programs to support alternatively licensed teachers could address staffing and teacher development needs. The creation of professional development to support teachers should be developed and evaluated based upon the recommendations of current research. Specific to special education, the integration of a framework based upon high yield strategies can assist in teacher development and promote student achievement. In the following chapters, I explore the outcomes of an implemented professional development series for provisionally licensed special education teachers.

CHAPTER 3

METHODS

School districts must be prepared to address the professional development needs of non-licensed and provisionally licensed teachers due to the teacher shortage and an increase in alternate certificates in the existing teacher workforce. Such district-led efforts are necessary to increase the candidate pool and to address considerations related to teacher performance and student achievement. Special education teachers experience an enhanced need for targeted professional development due to the dual roles they serve as teacher and case manager. As a result, I sought to identify implementation considerations and outcome measures related to teacher practice and student achievement for a division-led professional development sequence for non-licensed and provisionally licensed special education staff. This chapter outlines the research design for the study, including the conceptual paradigm and data sources, methods, collection, and analysis. Additionally, professional development quality indicators are discussed.

An action research design was employed to develop this study to explore a systematic professional development approach that dually addressed teacher staffing needs and promoted high-quality teacher and student outcomes (Guskey, 2000; Stringer & Ortiz Aragon, 2021). This study drew from the pragmatic paradigm (Mertens & Wilson, 2019) and employed a use-based emphasis to help determine the value and application of targeted professional development for non-licensed and provisionally licensed special education teachers. A mixed-methods approach offered a balanced deference to both quantitative and qualitative elements related to the implementation of the outlined professional development. Quantitative measures focused on

teacher self-assessment of their growth, impact of the professional development on practice, and student outcomes, which integrated a positivist approach through establishing a relationship between the professional development and objective outcomes. Qualitative measures emphasized the content and delivery of the professional development from a constructivist perspective, in which the experiential and perspective-based outcomes of the professional development influenced formative and summative actions during the study and beyond (Stringer & Ortiz Aragon, 2021).

Action Research Questions

Consistent with Guskey's (2000) model for professional development evaluation, professional learning must be systematically evaluated across multiple levels in terms of participant reaction (i.e., Level 1); participant learning (i.e., Level 2); organization support and change (i.e., Level 3); use of new knowledge and skills (i.e., Level 4); and student learning outcomes (i.e., Level 5). As a result, the following primary research questions (RQs) guided the development and implementation of this study:

1. What logistical features of district-led professional development do non-licensed and provisionally licensed special education teachers indicate are most important to their successful participation in the professional learning experience?

2. What instructional experiences of district-led professional development do non-licensed and provisionally licensed special education teachers consider to be most relevant to case management and instructional delivery responsibilities?

3. To what degree does the targeted professional development align with what teachers perceive to be the expectations of their school administrators?

4. To what degree do non-licensed and provisionally licensed special education teachers incorporate targeted professional development into their professional practice?

5. To what degree do participating teachers and administrators perceive the impact of targeted professional development on student learning?

Action Research Approach or Model

As previously described in Chapter 1, this study emphasized the implementation phase of the outlined action research cycle. The initial professional development was evaluated formatively and initiated the evaluation phase of the cycle, during which summative data are gathered to support future decision making.

Description of the Action Research Intervention

This study assessed the qualities and outcomes of a district-led professional development series for non-licensed and provisionally licensed special education teachers in case management and instruction. Qualifying teachers participated in a six-part professional development series over the course of a school year, which generally consisted of one professional development day per month, beginning in September and concluding in February. Each full-day professional development session emphasized one or more high-leverage practices (HLPs; McLeskey et al., 2017) and one or more case management duties. The HLPs were selected by district-based special education administrators, who considered applicability across grade bands, disability characteristics, and curriculum track. Considering the reviewed research and context of application, the identified seven HLPs were determined to be the most generalizable regardless of grade, school, or student disability and the most likely to be implemented with fidelity in a generalized context. Additionally, HLPs were aligned with case management topics to ensure alignment with naturally occurring timelines of tasks in the division, such as ensuring the task of

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reporting progress was addressed prior to the first progress reporting deadline. The professional

development session was delivered by district special education department staff, including

district specialists and myself. A summary of the professional development series topics is

included in Table 1.

Table 1

Professional Development Topic Summary

Session	HLP	Case management	Implementation
1	4: Use multiple sources of information to develop a comprehensive understanding of a student's strength and needs.	The IEP process: Present levels and goals	September 2022
2	6: Use student assessment data, analyze instructional practices, and make necessary adjustments that improve student outcomes.	Reporting progress	October 2022
3	5: Interpret and communicate assessment information with stakeholders to collaboratively design and implement educational programs; 18: Use strategies to promote active student engagement.	The evaluation process	November 2022
4	13: Adapt curriculum tasks and materials for specific learning goals.	The IEP process: Accommodations, services, and placement	December 2022
5	22: Provide positive and constructive feedback to guide students' learning and behavior.	Prior written notice	January 2022
6	15: Provide scaffolded supports.	Preparing for transition	February 2022

Note. HLP = high-leverage practice, IEP = individualized education program.

In each 7-hour professional development session, participants engaged in multiple

activities that emphasized collective sharing, collaboration, and independent work with an

opportunity for explicit feedback. Selected activities were identified by their alignment with

professional learning standards—including the integration of learning communities, resources, learning designs, outcomes, leadership, data, and implementation—in alignment with prescribed instructional and case management responsibilities (Learning Forward, 2011). Personal sharing and collaborative experiences aligned with establishing a learning community. Direct instruction and opportunities for explicit feedback based on each HLP and case management topic correlated with integrating outcome-driven resources and learning designs to improve teacher performance and student achievement. Providing independent work with embedded coaching and mentoring was intended to promote implementation for long-term change. Additionally, a working lunch and participant choice opportunities were included to further enhance the learning experience by promoting community and perceived relevance for participants. Breakfast and lunch were provided by the district. A sample daily professional development schedule is provided in Appendix A.

Following Guskey's (2000) levels for professional development evaluation, qualitative data related to participant reactions, learning, and organization to support change were gathered through formative and summative surveys. Formative survey results informed the action research cycle implementation, during which modifications were made to the professional development based on participant responses to enhance the participant experience and outcomes. To assess the application of the professional development activity to teacher practice and attempt to connect the professional development to potential student outcomes, participant self-assessments, administrator checklists, interviews, and progress report reviews were facilitated at the beginning and end of the professional development sequence to yield comparative data about teacher growth.

Prior to the development and initial delivery of the professional development series, current provisionally licensed special education teachers were surveyed to capture current experiences, which were used to guide content delivery and logistical elements associated with developing the series. A focus group was also conducted, and although outcomes from this effort provided the rationale for initial planning and implementation of the professional development and supported the spirit of an action research approach; however, because this study emphasized the implementation phase of the action research cycle these data are not included in this study.

Role of the Researcher

Throughout the course of the study, I served in multiple roles. First, I served as a supervisor and colleague to participating teachers and professional development facilitators. Second, during topic-specific professional development, I was a facilitator and coach. Third, I also held a formal role as a district administrator. Due to these multiple roles, the results of this study could be affected due to perceived use of the data (e.g., for the relationship of the data to formal teacher evaluation). To negate potential effects, participant responses to surveys were confidentially maintained and data from survey and interview responses were not shared with the participants' district-assigned evaluators. Additionally, to avoid potential implications of self and administrator assessments on the teacher evaluation process, I abstained from any activities related to participants' cumulative evaluation. Additionally, I employed a separate tool, unrelated to the teacher evaluation process.

Participants

Participants included all special education teachers in the targeted school district who were identified as provisionally licensed or selected non-licensed long-term substitutes who had initiated coursework in pursuit of a provisional license. This study included 10 teachers, one

identified as a long-term substitute and nine who were provisionally licensed. The participant pool represented variability in gender and age ranges, including career switchers and teachers who entered the field immediately after college.

Participants represented all grade bands, including five at the elementary level (i.e., Grades K–4); three at the intermediate level (i.e., Grades 5 and 6); and three at the high school level (i.e., Grade 9 through Age 21, inclusive). Across each grade band, teachers were assigned to serve in a variety of special education service models, including consultative or indirect services, services in the general education classroom, and services in the special education classroom, as outlined in each assigned student's individualized education program (IEP). Participants also represented multiple curriculum tracks, including teachers providing instruction as prescribed by the Virginia Standards of Learning (Virginia Department of Education, 2022a) and teachers instructing on alternate learning standards as defined by the Virginia Essentialized Standards of Learning (Virginia Department of Education, 2022b).

Data Sources

A mixed-methods design was used for this study. I collected quantitative data through survey responses and self-assessment results and supported by questions related to professional development design, implementation, and outcomes. Qualitative measures, including free-response survey questions and interviews, further supported triangulating the results, specifically results related to student achievement outcomes.

Teacher Survey

To evaluate teacher reactions, learning, and organization to support change as outlined in Guskey's (2000) first three levels of the professional development evaluation model, teachers completed a formative survey at the conclusion of each professional development session and a

summative survey at the end of the professional development series. Although the teacher survey was not the primary measure of knowledge, skill, or student learning, consistent with Levels 4 and 5 of Guskey's (2000) model; participants' perceptions of their learning and impact on student achievement were included. Primary measures of teacher knowledge, skill, and student learning were captured through self-assessment measures previously described.

Survey questions (see Appendices B and C) addressed both content and implementation considerations, including eight rating scale questions with multiple sub-questions and four free-response questions. For rating scale questions related to the participant experiences, teachers rated their responses on a 5-point scale (1 = *strongly disagree* to 5 = *strongly agree*). For rating scale questions related to their learning, participants rated their responses on a 5-point scale ranging from *unfamiliar* (1) to *deep understanding* (5). Free response questions were open ended to seek additional information regarding the participant's experience and feedback that would not have been captured in previous questions. Summative survey questions replicated formative questions but reflected teachers' overall experiences in the professional development sequence. Survey questions were adapted from a previous study that incorporated Guskey's (2000) model of professional development evaluation conducted by Ross (2010).

Surveys were reviewed individually by a panel of subject matter experts to confirm the validity of question wording and format. Subject matter experts included special education specialists who were professionally licensed in their respective field of practice, including psychology, behavior analysis, reading instruction, and special education. Results from their reviews were compiled and coded, and survey questions were updated based on the findings. After updating the survey, internal reliability was measured by having the survey reviewed by seven special education teachers who were designated as lead teachers or department chairs in

their respective schools. Four teachers represented Grades K–4, one teacher represented Grades 5 and 6, one teacher represented Grades 7 and 8, and one teacher represented Grades 9–12. Teachers reviewed each question and reflected on their cognitive processes—specifically, main ideas and key words—which were recorded via electronic survey. Results from the cognitive processes review were used to measure internal reliability. Any question that generated less than 80% internal reliability was refined based upon lead teacher feedback and updates reviewed with the panel.

HLPs for Students With Disabilities Self-Assessment Tool

To assess participant performance and growth as a result of the provided professional development, the HLPs for Students with Disabilities Self-Assessment Tool (VanUitert & Holdheide, 2021) was administered to both participating teachers and their respective supervisors—who was generally a principal or assistant principal—at the beginning and end of the professional development series. Participating teachers completed the self-assessment based on their personal experiences and each administrator completed the assessment based on teacher observations and impressions. In the self-assessment, participants or their administrators rated their perceptions on indicators related to each HLP ranging from *unfamiliar* (1) to *mastered* (5). Additionally, the self-assessment tool incorporated a short screener in which a composite score was tabulated based on a rating scale ranging from *unfamiliar* (1) to *mastered* (5). Results from both components of the self-assessment tool were compared to determine a change in response over the two administrations of the tool.

Teacher and Administrator Interviews

Completed self-assessment tool results were compiled at the culmination of the study. Results from teacher- and supervisor-completed assessments were reviewed and practices that

received a rating of 5, indicating mastery of the skill with noted student improvement, were the subject of follow-up interviews with teachers and supervisors. Interviews were scheduled individually and recorded, consisting of a semi structured format beginning with broader questions, moving to a narrower focus (Stringer & Ortiz Aragon, 2021) by which general questions related to the specific HLPs were followed by more typical and specific question types. Interviewees were asked to describe indicators of mastery for each HLP, including examples of use and student progress resulting from each practice (see Appendix D). Questions and a summary of the HLPs rated a 5 by the interviewee were provided prior to the interview. I developed an interview tool that was reviewed by a panel of practitioners comprised of district specialists and administrators who participated in facilitating the professional development and were familiar with the HLPs targeted in the self-assessment tool. I then used the results from the interview protocol review to refine the protocol prior to administration.

Data Collection

Throughout the course of the study, formative and summative data indicators were collected to assess the five levels of Guskey's (2000) professional development evaluation model. Data indicators, as previously described, included surveys, a self-assessment tool with embedded screener, interviews, and reviews of student progress.

Teacher surveys were used to collect formative and summative data to inform the development and implementation of division-led professional development efforts. Surveys were administered at the conclusion of each professional development opportunity. A summative participant survey was collected at the conclusion of the professional development series. All survey responses were collected electronically and maintained in a confidential electronic file for the duration of the study.

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Self-assessment measures, completed by participating teachers and corresponding supervisors, provided information on elements of professional development related to teacher growth and practice. The self-assessment tool (VanUitert & Holdheide, 2021) was administered electronically to participants prior to their first professional development participation. A second administration was conducted at the end of the professional development sequence. Participant names were included in the administration to compare growth and performance from the beginning to the end of the professional development series. The assessment tool was also administered electronically to the designated school-based administrator charged with direct supervision of each participant prior to the first professional development session and again at the end of the professional development series. Administrator and corresponding teacher names were noted on the assessment to align supervisor responses with completed teacher self-assessments.

Follow-up interviews with teachers and supervisors were conducted based on results from the self-assessment measure whereas any teacher or supervisor designating a rating of 5, indicating mastery of the skill with visible student progress, to one or more HLP indicator was selected for interview participation. Interviews were conducted individually at a mutually agreed upon time and location between myself and the interviewee. I scheduled interviews via email approximately 1 week ahead of the proposed interview. Because the number of question cycles varied based on the number of HLPs designated a 5 rating, interviews were not timed. All interviews were recorded and I took notes of each response.

Data Analysis

This mixed-methods study included quantitative data, compiled through participant and administrator self-assessments and participant survey results, that generated descriptive statistics.

Qualitative indicators, including open survey questions and interview questions, were coded by attribute and magnitude (Saldaña, 2016).

Action RQs 1, 2, and 3

RQs 1, 2, and 3 related directly to participant reactions, learning, and organization to support change as measured through participant formative surveys, which were conducted at the end of each professional development session, and summative surveys, which were conducted at the conclusion of the professional development series. Descriptive statistics were employed for rating scale questions, in which each rating was assigned a corresponding value, generating frequencies and measures of central tendency for each question. Descriptive results were compared between formative and summative survey administrations to draw conclusions about the participant experience. Attribute coding (Saldaña, 2016) was used to explore data from the free response questions and capture descriptive indicators of interviewee feedback relative to each category.

Action RQs 4 and 5

Participant perception data related to RQs 4 and 5 were collected via teacher survey and descriptive indicators related to knowledge, skill, and student achievement were generated. However, because RQs 4 and 5 directly related to how the professional development was applied and objective outcomes, meaning participant perception should not be the sole method of evaluation, the HLPs for Students With Disabilities Self-Assessment Tool was completed by teachers and their supervisors. Descriptive results were generated for baseline and final data of individual and group results, including frequencies and measures of central tendency. To determine the application of HLPs to teacher practice, as outlined in RQ 4, the frequency of use identified by both teacher and administrator responses were analyzed. Additionally, correlational

data comparing results from the final teacher self-assessment and final adapted self-assessment tool generated a Pearson *r* measure to determine the extent of correlation between (a) teacher and administrator perception of practical application of specified HLPs and (b) the perception of student achievement. I compiled comparative data for each administration between teacher and supervisor assessment results to determine to what extent impact on teacher practice and student achievement could be verified. I employed descriptive statistics and coding of the summative participant survey to further draw conclusions regarding teacher practice and perceived student impact.

To further measure quantitative impacts of the professional development experience on teacher practice, and due to limitations associated with quantifying the impact of teacher practice on student achievement on such an individualized level, qualitative data from teacher and supervisor interviews were used to further verify trends. After the interviews, transcripts were analyzed using magnitude coding in which codes were assigned to determine the intensity or frequency of a response (see Table 2).

Table 2

Data Analysis

Research Question	Data Source
1: What logistical features of district-led professional development do non-licensed and provisionally licensed special education teachers indicate are most important to their successful participation in the professional learning experience?	Participant survey (formative) Question 1 (a–d), 9, 11 Participant survey (summative) Questions 1, 3, 5
2: What instructional experiences of district-led professional development do non-licensed and provisionally licensed special education teachers consider to be most relevant to case management and instructional delivery responsibilities?	Participant survey (formative) Questions 2 (a–b), 9, 11 Participant survey (summative) Questions 2, 4, 5
3: To what degree does the targeted professional development align with what teachers perceive to be the expectations of their school administrators?	Participant survey (formative) Questions 3 (a–b) Participant survey (summative) Questions 3, 4
4: To what degree do non-licensed and provisionally licensed special education teachers incorporate targeted professional development into their professional practice?	Participant survey (formative) Questions 4 (a–b), 5, 6, 7, 8, 10, 11 Participant survey (summative) Questions 3, 4 Self-assessment tool Teacher and administrator interviews Questions 1, 2
5: To what degree do participating teachers and administrators perceive the impact of targeted professional development on student learning?	Participant survey (formative) Question 4c Participant survey (summative) Self-assessment tool Teacher and administrator interviews Questions 1, 3

Delimitations, Limitations, and Assumptions

This study evaluated the initial development and implementation of district-based professional development for provisionally licensed staff. The professional development emphasized key HLPs as outlined by the Council for Exceptional Children and CEEDAR Center (McLeskey et al., 2017) and were implemented in monthly, full-day sessions. Delimitations, limitations, and assumptions are acknowledged in this section related to the participant population, targeted skills, and delivery format.

Delimitations

Due to the scope of the study, including timeline and participant considerations, several implementation decisions could have impacted study results. Limiting study participants to include only special education staff was justified due to the unique nature of dual roles and responsibilities for this teacher population and the current district need to ensure this teacher population, which was less likely to be fully licensed upon hire and experiences higher attrition rates when compared to other teacher populations in the district, had supplemental preparation opportunities (Winchester Public Schools, 2021a). As a result, the exclusion of other teacher groups limits generalization of study results. Additionally, because identified participants spanned the division, a relatively low number of teachers represented each grade band, and the district's capacity to provide professional development was limited, a districtwide professional development design was used to increase systematic reform and maximize resource effectiveness yet limit contextual relevance and participant voice (Guskey, 2000).

Furthermore, due to the scope of the professional development series, only seven specified HLPs (McLeskey et al., 2017) were incorporated into the professional development, which may have impacted overall teacher performance because not all HLPs were explicitly addressed. Selected practices were identified based on the breadth of relevance to a wide range of special education teacher experiences and the current research base. However, this limitation could have limited contextual relevance for certain participants and reduced the likelihood the professional development experience was tailored to individual participant needs. Likewise, and consistent with the HLP framework, using self-assessments and rating scales was chosen to assess perceptions and protect participants by ensuring the assessments were not used in the formal evaluation process. Using these assessments also helped account for extreme variability

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in the field of special education in terms of student population and subsequent instruction and achievement.

Perception, prior learning history, and personal experiences also posed potential limitations to this research. The highly specific nature of the professional development content, which was aligned with the organization and consistent with Guskey's (2000) Level 3 question, meant only perceived alignment with expectations at the school level and not alignment with district procedures, processes, policies, or the historical training of administrators were evaluated. Moreover, the scope of the study was strictly limited to the perceived impact on teacher practice and student achievement from the perspectives of the participants and administrators. As a result, the study was limited in breadth to each group's perception of impact and the perceptions of colleagues, district support staff, or families to further confirm or refute the value of the professional development experience were not considered. Finally, I sought to align professional development delivery with student achievement outcomes during this study, and selected instrumentation related to qualitative feedback from participants and administrators limited quantifiable correlation between the professional development and student outcomes.

Limitations

In the study, several factors may have posed limitations to validity and subsequent interpretation of results. First, conclusions related to student achievement and teacher retention could not be drawn due to the absence of longitudinal student and teacher data. Such data limitations additionally resulted in a failure to measure the final stage of Guskey's (2000) model of teacher change, or change in teacher attitude and belief, which served as the intended outcome of successful professional development.

Second, the diverse backgrounds of participants may have impacted their baseline knowledge and performance, which may have impacted study results related to participant responsiveness to professional development, including teacher growth and student achievement. Likewise, anticipated effects of maturation due to natural growth and exposure to other supports could impact teacher perceptions, learning, and growth, making it difficult to ascertain what extent of observed impact on teacher practice was from the professional development alone.

Third, although understanding potential impacts on student achievement was a goal of the study, the individualized nature of student outcomes relative to the special education process and the employment of a non-standardized measure of student achievement restricted quantifiable derivations of study results related to student outcomes. Multiple measures were employed to identify trends related to perceived impact on student progress, but the correlation between the professional development and student achievement was unable to be determined. Therefore, results should be interpreted cautiously because any change in student achievement, positive or negative, could have been due to a wide range of factors unrelated to the targeted professional development. Finally, the delivery of the professional development itself via district staff posed additional risks related to variability and quality-control limitations, including the overall quality of the instruction provided in each session.

Assumptions

Because the goal of the study was to determine the value of professional development for non-licensed and provisionally licensed special education staff, delimitations and limitations were based on specific assumptions. The current body of research and guiding regulatory requirements surrounding specially designed instruction and case management responsibilities led to the assumption that the professional development curriculum was aligned with intended

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learning outcomes and broad job responsibilities. Additionally, because I included evaluative input from school administrators and did not seek to assess administrator competence, it was assumed teacher observations were conducted with fidelity and each school administrator possessed the knowledge to identify quality indicators of successful special education teachers.

Ethical Considerations

This study included data collected from human subjects, specifically participating teachers. To protect study participants from potential harm, information related to the study—including copies of the participant consent form, study procedures, data sources, and documentation of completed Collaborative Institutional Training Initiative training—were supplied to the William & Mary School of Education's Institutional Review Committee. Of particular importance to this study was the dual roles of study subjects as employees and study participants. Participation in the professional development series was mandatory for all teachers who qualified but participation in the research study was optional. Accordingly, participant informed consent was sought prior to the study. In the consent form and process, participants were notified of the voluntary nature of their participation and their ability to revoke consent at any time over the course of the study.

In the study, both my role and type of data measures had the potential to pose a threat to reliability, particularly related to sharing participant thoughts and feelings and performance data. Due to my multiple roles, including facilitator and administrator, teachers' views might not have been fully expressed. Therefore, participants may have been less likely to share information that could have been interpreted negatively for fear of retaliation. To help mitigate this potential impact, participant survey information was submitted and maintained confidentially. Because of the high-stakes nature of teacher performance data related to the teacher evaluation process, it

was important for me to emphasize growth-based measures and distinguish them from a formal evaluation process. For this reason, an assessment tool not used for teacher evaluation measures was employed to separate the constructive teacher self-assessment and administrator assessment from each participant's formal evaluation.

Beyond the potential ethical considerations related to participants, additional considerations existed related to student outcomes. Students did not participate in the professional development series but were direct recipients of the interventions and practices targeted in the professional development, so information related to their eligibility, individualized supports, and progress as a student with a disability was reviewed. All interventions and practices targeted in the professional development were consistent with research best practices and regulatory requirements; therefore, no ethical concerns related to student intervention were anticipated. However, access to and subsequent use of student confidential information could pose a continued risk to students whose case manager and teacher participated in the study. As a result, only district staff who previously had access to student confidential data, including district administrators, teachers, and school administrators, accessed confidential information over the course of the study. Additionally, study results do not include any identifying information or connect any student-specific results with any one case manager or teacher.

As a result of the study, multiple data sources were generated. Sources included formative and summative results from surveys, interviews, participant self-assessments, and administrator assessments. To ensure confidentiality and use of the data for its consented purpose only, original copies of data sources were maintained in a confidential file housed in the district's central administrative office or in district-approved electronic databases. At the conclusion of the

study and successful publication of the dissertation, original data sources will be destroyed following the school district's record destruction procedures.

Timeline

The study was conducted over the course of a school year. As outlined in Table 3, initial professional development planning, including a review of data from the conducted focus group and development of content and delivery, occurred prior to the start of the study (i.e., Phase 1); followed by professional development implementation (i.e., Phase 2); and concluding with final evaluation of the initial action research cycle (i.e., Phase 3).

This chapter outlined the implemented study to evaluate district led professional development for provisionally licensed special education teachers. A mixed-methods approach was integrated in order to assess outcomes in areas of teacher reactions, learning, organizational alignment, teacher skill application, and student achievement. In the following chapters, study outcomes are summarized and leadership implications discussed.

Table 3

Study Timeline

Phase	Activities	Implementation
1: Planning	Provisionally licensed teacher survey Development of initial district professional development series	May–June 2022
2: Implementation	Delivery of professional development Formative assessment	September 2022–February 2023
3: Evaluation	Summative assessment Future professional development	February–March 2023

CHAPTER 4

FINDINGS

I aimed to evaluate the overall results of division implemented professional development for provisionally licensed teachers. Although all participants were enrolled in coursework in pursuit of full licensure, I targeted professional development relative to participant practice in the public-school setting. As a result, teacher certification was not an intended result of this study. Following Guskey's (2000) model for professional development evaluation, the study's questions aligned with each level of professional development evaluation including: participant reactions, learning, organization support and change, use of new knowledge and skill, and student outcomes. I conducted the study across a 5-month period in which five, 7-hour professional development sessions were delivered to participating provisionally licensed teachers. Ten total teachers, nine who qualified under provisional licensure status and one who had not yet met provisional licensure requirements and was considered a long-term substitute, participated in the study. Data measures, both quantitative and qualitative (see Table 4), provided data triangulation to address each research question (RQ). The first data measure was the administration of the High-Leverage Practices (HLPs) Self-Assessment Tool (VanUitert & Holdheide, 2021; see Appendix E). Prior to the first session, teacher/participants completed a self-assessment identifying their perceived use of specified HLPs, which were the target of the professional development. Each teacher's designated school administrator completed the same survey based upon their perceptions of the teacher through naturally occurring observations and interactions with the teacher. The surveys were repeated at the conclusion of the professional

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development series and results compared. The second data measure included the administration of formative and summative session surveys. After each session, the participating teacher completed a survey and provided general feedback on the session, including content, delivery, and environmental considerations. Results were compared across sessions with a summative survey administered at the conclusion of the final session. The third data measure included teacher and administrator interviews, specifically aimed at qualitatively describing the application of the professional development to teacher practice and the identification of key indicators of improvement in student learning as a result of the professional development. This chapter outlines the key findings of the delivery of a district developed professional development series for provisionally licensed special education teachers as it relates to teacher reactions, learning, district support and alignment, teacher practice, and student outcomes. A summary of RQs and corresponding data measures, previously presented in Chapter 3, serves as a guide for key findings discussed in this chapter.

Table 4

Study Overview

Research Question	Data source	Data analysis
1: What logistical features of district-led professional development do non-licensed and provisionally licensed special education teachers indicate are most important to their successful participation in the professional learning experience?	Participant survey (formative) Question 1 (a–d), 9, 11 Participant survey (summative) Questions 1, 3, 5	Descriptive statistics Attribute coding
2: What instructional experiences of district-led professional development do non-licensed and provisionally licensed special education teachers consider to be most relevant to case management and instructional delivery responsibilities?	Participant survey (formative) Questions 2 (a–b), 9, 11 Participant survey (summative) Questions 2, 4, 5	Descriptive statistics Attribute coding
3: To what degree does the targeted professional development align with what teachers perceive to be the expectations of their school administrators?	Participant survey (formative) Questions 3 (a–b) Participant survey (summative) Questions 3, 4	Descriptive statistics Attribute coding
4: To what degree do non-licensed and provisionally licensed special education teachers incorporate targeted professional development into their professional practice?	Participant survey (formative) Questions 4 (a–b), 5, 6, 7, 8, 10, 11 Participant survey (summative) Questions 3, 4 Self-assessment tool Teacher and administrator interviews Questions 1, 2	Descriptive statistics Attribute coding
5: To what degree do participating teachers and administrators perceive the impact of targeted professional development on student learning?	Participant survey (formative) Question 4c Participant survey (summative) Self-assessment tool Teacher and administrator interviews Questions 1, 3	Descriptive statistics Attribute coding

Overall, study results were suggestive of positive participant reactions in response to the professional delivery, including format and content. Participants consistently noted that opportunities to collaborate, the formation of relationships, and the provision of food were most important to successful participation. Additionally, the alignment of session topics with their

professional practice and the provision of time to work and apply their learning were identified as elements that positively contributed to participant learning.

In addition to teachers favoring the professional development itself, study results are indicative of perceived teacher growth and learning in areas of instructional delivery and case management. When considering the elements that were perceived to contribute the most to teacher growth and learning, the incorporation of activity-based learning opportunities, the alignment of content with practical application, consultation with administrative staff, and the connection to prior knowledge were considered to be most relevant to participant learning.

When considering results related to the delivery of professional development and alignment with administrative expectations, study findings were suggestive of strong alignment between professional development topics and the expectations of school administrators. Additionally, results suggest a reciprocal relationship between teacher knowledge and adherence to administrative expectations. As teachers grew in their understanding of instructional and case management practices, their adherence to expectations improved.

Regarding the application of the professional development, including teacher use of targeted skills both administrators and teachers noted an increase in use of skill with an increase in student achievement as a result of the skill's use. However, variability was noted in the perceptions of administrators who identified use of targeted skills to a lesser degree when compared to teacher perceptions. Additionally, study results are suggestive of positive improvements in student learning, as perceived by both teachers and administrators, across all seven targeted HLPs with visible improvements in academic, social/emotional/behavioral, individualized education program (IEP), application to lesser restrictive environments, adaptive skills, and indirect learning. Despite agreement in the areas of student learning overall,

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variability existed between the perception of administrators and the perceptions of teachers regarding the degree of learning in each area. The following summary provides an overview of findings relative to each RQ.

Action RQ1

The first action RQ was: What logistical features of district-led professional development do non-licensed and provisionally licensed special education teachers indicate are most important to their successful participation in the professional learning experience?

Consistent with Guskey's (2000) model of professional development evaluation, RQ1 evaluated teacher reactions related to the learning environment and facilitation features of the professional development. Participant surveys were completed electronically by each teacher at the end of each professional development session with a summative survey administered at the end of the professional development series. In each formative survey, four rating scale items and two short-answer questions aimed to assess the perceived value of specific session features. Five summative questions generated data to support each teacher's overall experience in the professional development series. Survey responses integrated a 5-point Likert scale (1 = *strongly disagree* to 5 = *strongly agree*). Descriptive statistics were used to evaluate teacher responses for all rating scale items. Attribute coding was used to analyze short-answer responses and interview questions.

Overall, participants highly rated the logistical elements of the professional development including facilities and learning environment, format, materials, and session organization of each of the five professional development sessions. Sessions were conducted at a district school in the department's learning lab, a classroom designed for teacher professional development. Each session was conducted over a full, 7-hour workday and followed a similar structure which

included a welcome activity with breakfast, professional development on an HLP, independent work time, lunch, professional development about case management, and concluded with a second opportunity for independent work. Each independent work session afforded participants to work on choice activities related to either their professional teaching or case management responsibilities or coursework associated with their licensure program. Expert support from district special education department staff was available for consultation during all independent work opportunities. Materials were shared via an electronic drive based upon the HLP and case management topics covered and included sample instructional activities, examples of demonstration of the targeted skill, instructional presentations and reference documents.

Overall average scores for participant reactions to logistical features including facilities and learning environment, session format, materials, and session organization and preparedness was 4.87 out of 5, suggesting strong, positive reaction across participants and sessions. A high level of response consistency across individual logistical features was noted in participant responses; session format rated 4.83 on average and session organization rated 4.92. Summative survey results were consistent with session surveys, which an average rating of 4.88 for overall delivery of the professional development, with responses ranging from 4 (*agree*) to 5 (*strongly agree*). A summary of survey responses related to participant reactions across the five sessions is included in Table 5.

Table 5

Participant Reactions to Professional Development Logistics

Level 1 Questions	Session				
	1	2	3	4	5
	N = 10	*N* = 10	*N* = 9	*N* = 8	*N* = 8
Facilities	4.80	4.91	4.78	4.88	4.88
Format	4.70	4.91	4.78	4.88	4.88
Materials	5.00	4.82	4.78	4.88	4.88
Organization	5.00	4.82	4.89	5.00	4.88
Average	4.88	4.87	4.81	4.91	4.88

Note. Reactions measured using a 5-point Likert scale (1 = *strongly disagree* to 5 = *strongly agree*).

Qualitatively, short-answer responses consistently indicated that teachers valued time to collaborate, the formation of relationships with both peers and administrative staff, the opportunity to complete work, and the provision of food. In further investigating the theme of collaboration, participants distinguished the value of collaboration between peers, administrative staff, and both peers and administrative staff. However, collaboration with peers was most commonly identified as a favorable element identified by participants, comprising 57.14% of open-ended responses with collaboration with administrative staff receiving 28.57% of responses and both peers and administrative responses receiving 14.29% of responses. Results from survey free-response questions were also mirrored in teacher follow-up interviews in which connection and personal relationships with peers and administrative staff and the provision of embedded time to work and collaborate in each session emerged as common values. Figure 3 provides a summary of themes generated by participants by session with overall trends in responses noted.

Figure 3

Summary of Participant Reactions
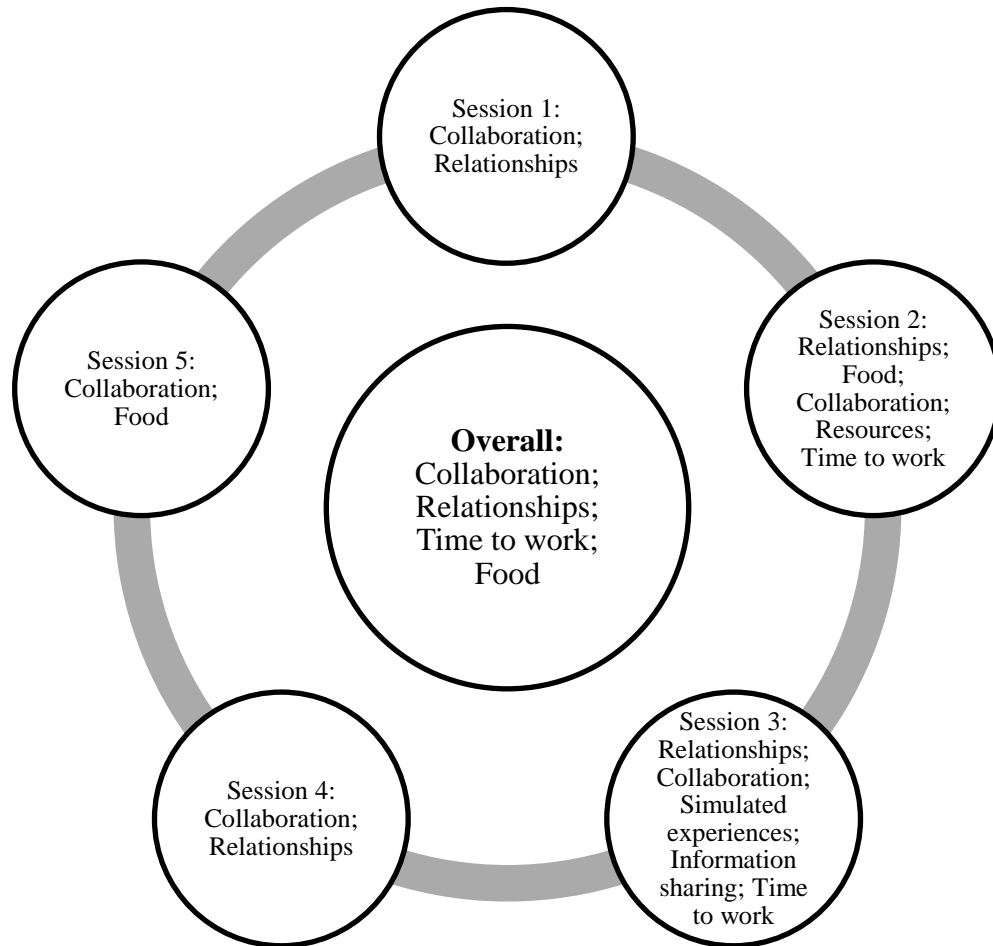
Participant interviews also generated additional features that teachers identified as positively contributing to their participation in the professional development. The size of the professional development session was noted to be of value. A total of 10 participants and six special education staff participated in professional development sessions which was considered to be large enough to provide robust conversations yet small enough to get tailored support. One teacher reflected in their interview that "the small size of the cohort is 'comfortable' which

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makes it easier to engage and ask questions." Additionally, the alignment of the sessions with practical application emerged as a theme that participants highly valued in which three out of seven teachers interviewed referenced session alignment with real world practices, specifically related to IEP activities. Examples noted in interviews included the emphasis on progress reporting at the time that initial progress reports were being completed for the district and the focus on the development of the Present Levels of Performances when many of the teachers were initiating their first annual IEP reviews in which the Present Levels of Performance must be developed.

Overall, participants highly rated logistical elements of the professional development including those related to the facilities, schedule, and hospitality measures. No noted negative ratings or qualitative comments were identified within the scope of the study.

Action RQ2

The second action RQ was: What instructional experiences of district-led professional development do non-licensed and provisionally licensed special education teachers consider to be most relevant to case management and instructional delivery responsibilities?

Aligned with Guskey's (2000) Level 2 questions in the professional development evaluation model, RQ2 was designed to identify the different professional development experiences in the series that teachers felt were most relevant to their practice application, both as a case manager and as an instructor. Results were generated through participant surveys at the end of each professional development session and cumulatively at the end of the series. In each session survey, two rating scale questions and two short-answer questions aimed at addressing RQ2 in each formative survey. One question on the summative survey addressed cumulative perceptions related to RQ2. Survey responses included a 5-indicator rating scale as previously

described under RQ1. Descriptive statistics were used to evaluate teacher responses for all rating scale items. Attribute coding was used to analyze short-answer responses and interview responses.

Overall, formative survey results suggested that participants consistently perceived the professional development to be relevant to their practice as a teacher and a case manager with responses from ranging from 4.75 to 4.91 on a 5-point scale, across both instructional and case management indicators. Each session focused on an HLP previously identified, by both research and practice, to be of prioritized relevance for provisionally licensed special education teachers regardless of content, grade level, or instructional assignment. Similarly, each session targeted one case management topic that aligned with general timelines for engagement throughout the school year. General teacher perception of their growth from the onset of each session to the end was moderately strong across targeted skill areas (i.e., instruction and case management) and consistent across each of the five sessions. Results suggest that teachers perceived their growth to be greatest in areas of IEP case management knowledge and practice and data collection. Compiled survey results generated from all participants across each session identified specific experiences that contributed to participant learning included engagement in activities that promoted understanding of HLPs and their application, alignment of content to practice, alignment of timeline of the presentation of targeted skills with application, consultation with administrative staff, and connection to prior knowledge.

Overall, participant reactions across the five sessions related to their learning, including their perception of relevance of the professional development to their practice as an instructor and case manager was highly consistent ranging from 4.75 to 4.91 suggesting a strong, positive perception that the professional development related to the participant's practice. Additionally, in

session variability of specific features was highly consistent with an average variability in responses of 0.08 points. The average score for participant perceptions of relevance of the professional development to their instructional practice was 4.84 with average perceived relevance to case management duties being 4.85. Summative results, as seen with the completion of a cumulative survey question regarding perceived relevance were consistent with formative survey results in which teacher rating of their overall perception of relevance of the professional development as a whole generated an average score of 4.88 out of 5. A summary of survey responses related to participant perceived learning as it relates to the relevance of the content across the five sessions is included in Table 6.

Table 6

Perception of Learning Relevance

Level 2 questions	Session				
	1 $N = 10$	2 $N = 10$	3 $N = 9$	4 $N = 8$	5 $N = 8$
Learning (case management)	4.90	5.00	4.67	4.88	4.75
Learning (instructional)	4.90	4.82	4.89	4.88	4.75
Average	4.90	4.91	4.78	4.88	4.75

Note. Perception measured using a 5-point Likert scale (1 = *unfamiliar* to 5 = *deep understanding*).

In addition to a positive perception of the relevance of their learning related to instruction and case management, perceived growth as a result of the professional development sessions was noted in both areas of instruction and case management. An average growth in learning related to instructional practices was 27.9% and 27.4% in case management practices. Although perceived learning increased across each of the five sessions in both areas of instruction and case

management, greatest learning was noted in areas of case management. However, the percentage

of perceived learning was noted to decrease in the final two sessions, from an average of 40%

increase in session one to 19.2% in Session 5. This noted decrease was most impacted by a

decrease perceived learning related to HLPs whereas perceived learning in case management

demonstrated less variability in perceived growth across sessions. This specific decrease may be

explained in the intentional shift in HLP emphasis from broader constructs (e.g., data collection

and analysis) in earlier sessions with more targeted practices (e.g., scaffolding and specific

feedback) in later sessions. Overall results of teacher perceived growth, as calculated by

identifying baseline ratings compared to final ratings of perceived skill within each session, are

provided in Table 7.

Table 7

Teacher-Perceived Growth

Skill Area	Session					*M*
	1 *N* = 10	2 *N* = 10	3 *N* = 9	4 *N* = 8	5 *N* = 8	
Instructional	1.70 (42.5%)	1.72 (43%)	1.56 (39%)	1.50 (30%)	0.88 (17.6%)	1.39 (27.9%)
Case management	1.50 (37.5%)	1.54 (38.5%)	1.56 (39%)	1.25 (25%)	1.00 (20%)	1.37 (27.4%)
M	1.60 (40%)	1.63 (40.8%)	1.56 (39%)	1.38 (27%)	0.96 (19.2%)	1.43 (28.2%)

Note. Growth measured using a 5-point Likert scale (1 = *unfamiliar* to 5 = *deep understanding*).

Relative to their perceived learning, short-answer responses generated from session surveys suggest that teachers grew in areas of IEP and case management, data practices, empathy and disability awareness and instructional practices. However, IEP and case management and data collection practices were most consistently noted as areas of learning across sessions, in which IEP and case management practices were cited as specific areas of learning across 60% of sessions and data collection practices across 40% of sessions. These results are consistent with perceived growth summarized in Table 7 in which learning in areas of case management were more consistent across sessions than those associated with instructional practices. Figure 4 provides a summary of response themes generated by participant survey results completed after each professional development session. Themes were designated by at least three out of 10 (30%) of participants identifying the same area within survey results.

Figure 4

Summary of Teacher Perceived Growth Areas
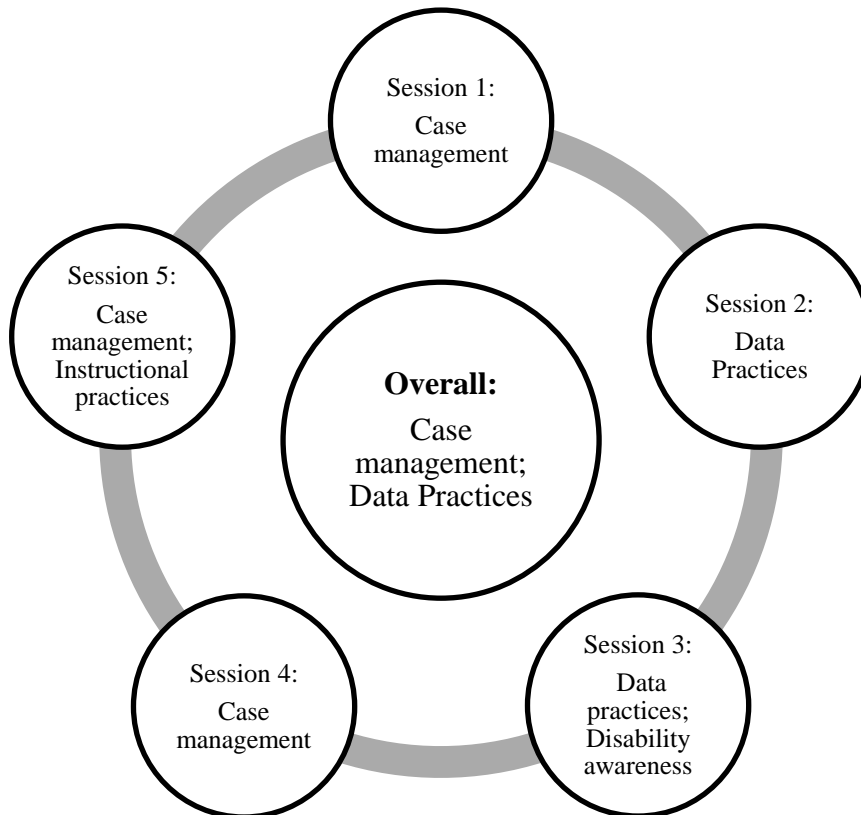
Additionally, results of teacher conducted interviews suggest that specific experiences contributed to their learning, including the use of activity-based learning. Another experience, the alignment of the content to an individual's professional practice, was noted to also positively contribute to teacher learning. One teacher reflected, "High-leverage practices are not the most important thing about the cohort, it is the application of the content of the professional development into my context that assisted in my learning." In addition to the alignment of content, the timely presentation of targeted skills to their professional practice was of value, as highlighted by one study participant, who shared, "The sessions were aligned with my needs, for

example, nailing present levels when I was creating my first annual IEP." Similarly, another participant reflected, "Things have come in a timely fashion when I have needed them, hitting things that were happening at the same time during the school year." Additionally, the provision of consultative support with administrative staff, and the connection to prior knowledge, in which one participant noted "affirmed I was doing something right," were noted additional experiences that contributed to teacher overall learning.

Action RQ3

The third action RQ was: To what degree does the targeted professional development align with what teachers perceive to be the expectations of their school administrators?

RQ3 sought to evaluate alignment between the professional development and school-based expectations of case management and instructional responsibilities, consistent with Guskey's (2000) Level 3 questions. As this was the initial implementation of professional development for provisionally licensed teachers, measuring alignment between district-level and school-based administrators was important to ensure the promotion of clarity of expectations and to address any areas of misalignment in future action research cycles. Results were generated by teacher formative and summative surveys conducted at the end of each professional development session and the series, respectively, as previously described. Two rating scale questions evaluated RQ3 in session surveys and one question in the cumulative survey. Responses were measured and data analyzed as previously described in RQs 1 and 2, using descriptive statistics for rating scale questions. Although short-answer survey responses and interview questions did not specifically probe for feedback related to the alignment of the professional development with administrator expectations, teacher and administrator feedback related to the third RQ was coded

for themes or supplemental indicators to further determine alignment with the professional development and administrator expectations.

Overall, study results suggest that the delivery of the professional development aligned with both administrator expectations of teachers in areas of instruction and case management with results consistent across sessions and for the overall professional development. No voluntary feedback on the alignment of the professional development by teachers was generated, but administrative feedback suggested a lack of professional development for provisionally licensed teachers results in the lack of knowledge which translates into misalignment between teacher practice and administrator expectations. Additionally, as identified by two of the five administrators interviewed, representing four of 10 participants, principal follow up after professional development was noted to be important to ensure the professional development translated into teacher practice.

As summarized in Table 8, teachers consistently perceived there to be strong alignment between the professional development and their school administrator's expectations from both instructional and case management perspectives. Average perception of alignment across sessions was 4.60, ranging from 4.45 in Session 2 to 4.63 in Sessions 4 and 5. On average, teachers perceived alignment of instructional expectations slightly higher (4.74) when compared to the alignment of case management expectations (4.60); however, this variability may be explained by relative variability and the individually specific nature of case management when compared to instructional expectations.

Table 8

Perceived Alignment of Professional Development With School Administrator Expectations

Skill Area	Session				
	1 *N* = 10	2 *N* = 10	3 *N* = 9	4 *N* = 8	5 *N* = 8
Expectations (instructional)	4.50	4.54	4.67	4.63	4.63
Expectations (case management)	4.70	4.36	4.67	4.63	4.63
M	4.60	4.45	4.67	4.63	4.63

Note. Perceived alignment measured using a 5-point Likert scale (1 = *unfamiliar* to 5 = *deep understanding*).

Although qualitative measures, including short-answer survey and teacher interview responses, yielded no substantial data trends related to the alignment of the professional development with administrator expectations, the reflections of one school administrator who identified as the supervisor for two study participants, supported survey results in which strong alignment was noted and was perceived to be of value as it relates to teacher development and student learning. The administrator stated, "Originally provisionally licensed special education teachers had no support and teachers found themselves in situations which did not aligned with expectations. As a result of the professional development, [the teacher] has grown tremendously, which has contributed to student learning."

Action RQ4

The fourth action RQ was: To what degree do non-licensed and provisionally licensed special education teachers incorporate targeted professional development into their professional practice?

To evaluate the incorporation of targeted professional development skills into teacher practice, both instructionally and as a case manager, multiple measures were used. Formative and

summative survey results completed by participating teachers evaluated the use of each targeted skill and perceived growth from the beginning of each session to the end of each session. Descriptive statistics were used to evaluate teacher responses for all rating scale items and coding used to analyze short-answer responses as described previously in the chapter. Additionally, the HLP Self-Assessment Tool (VanUitert & Holdheide, 2021) was completed by teachers and their respective supervisor prior to the beginning of the professional development series and then again at the end of the series. I generated comparative results regarding teacher and administrator perception of skill demonstration, through which I derived descriptive statistics and correlational data. Teacher and administrator interview questions provided qualitative indicators of application to practice and use.

Overall, teachers perceived their use of the targeted skill to be strongly connected to classroom application for both instructional and case management topics and consistently identified that the skills were incorporated into their professional practice. Teacher perception of utility of targeted skills increased from the beginning of the study to the end. Although teacher and administrative perceptions demonstrated a moderate relationship, perception of cumulative use varied between administrator and teacher perceptions, in which teacher perception of use increased substantially for an average increase in rating total of 1.14 out of a 5-point scale while administrator perception of use increased slightly, by 0.03. Consistencies were noted across teacher and administrator examples of use including data sharing, use of specific sources of data, and the connection between home and school for assessment HLPs. Additional consistencies for instructional HLPs were noted in areas of differentiated instruction, the use of specific strategies, and positive rapport with students.

Results from teacher formative surveys, as summarized in Table 9, generated an average rating of 4.85, out of a 5-point scale, among the five sessions with average ratings ranging from 4.67 (i.e., instruction, Session 3) to 5.00 (i.e., the highest rating possible) for case management topics in Session 2. The average rating for instructional topics across the five sessions was 4.81 and for case management topics was slightly higher at 4.88. These results were consistent with previous findings outlined in RQ2. Cumulative perceived use of the professional development related to the series as a whole was consistent with individual session responses with an average rating of 4.78 across participants in summative survey results. As previously explored in RQ2, teachers perceived a high level of perceived growth in both areas of instructional practice and case management with average perceived growth of more than one full rating across instructional practice (1.39) and case management (1.37).

Table 9

Teacher-Perceived Utility of Professional Development

Application of skill	Session				
	1 $N = 10$	2 $N = 10$	3 $N = 9$	4 $N = 8$	5 $N = 8$
Practice (instructional)	4.80	4.81	4.67	4.88	4.88
Practice (case management)	4.90	5.00	4.89	4.75	4.88
M	4.85	4.91	4.78	4.82	4.88

Note. Use measured using a 5-point Likert scale (1 = *unfamiliar* to 5 = *deep understanding*).

Quantitative measures suggested overall high ratings related to perceived application of the skill to participants' professional practice. Qualitative measures further highlighted what

specific elements were perceived to be of greatest application. As summarized in Figure 5, overall, IEP and case management practices and instructional application (i.e., responsiveness, planning, and delivery) were perceived to be the most useful, accounting as a major theme in survey free-response questions in four out of five sessions when compared to instructional themes which accounted for a primary theme in two out of five sessions. The emphasis on IEP and case management supports findings related to RQ2, in which greater learning was perceived in the area of case management as opposed to the area of instruction. However, differences were noted in the perceived utility (RQ3) of data and instructional mechanisms when compared to perceived learning (RQ2). Although participants perceived greater learning related to data collection practices and less learning related to instructional planning and delivery, results suggest greater utility in areas of instructional planning and delivery when compared to the use of data collection practices.

Figure 5

Teacher Application of Professional Development
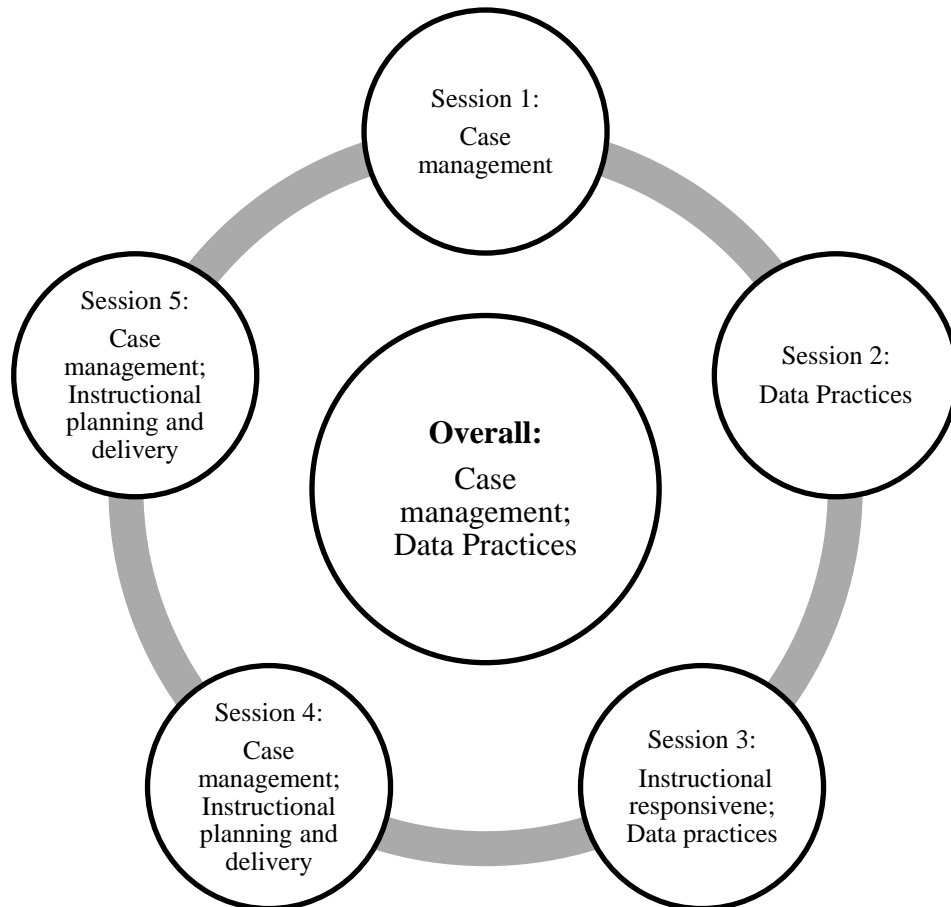
In addition to qualitative measures to identify perceived use, baseline and final results of the Council for Exceptional Children's (VanUitert & Holdheide, 2021) HLP Self-Assessment were compared across teachers and corresponding administrators, with results summarized in Table 10. It is important to note that while all 22 HLPs were assessed within the self-assessment measure, only those practices which were the target of professional development sessions are reported.

Table 10

Comparison Ratings Between Teachers and Administrators

HLP	Administrators		Teachers	
	Baseline	Final	Baseline	Final
#4	2.74	2.94 (+ 0.20)	3.12	4.22 (+ 1.10)
#5	2.72	2.86 (+ 0.06)	2.60	4 (+1.40)
#6	2.59	2.74 (+ 0.15)	2.66	3.89 (+1.23)
#13	2.77	2.59 (- 0.18)	2.98	3.89 (+ 0.91)
#15	2.60	2.57 (- 0.03)	2.76	4 (+1.24)
#18	3.08	3.08 (0.00)	3.18	4 (+ 0.82)
#22	3.08	3.0 (- 0.08)	3.36	4.22 (+ 0.86)
M	2.80	2.83 (+ 0.03)	2.97	4.11 (+ 1.14)

Note. HLP = high-leverage practice. Use measured using a 5-point Likert scale (1 = *unfamiliar* to 5 = *deep understanding*).

Initial assessment results across administrators and teachers were relatively consistent with an average rating of 2.80 (administrators) and 2.97 (teachers) across seven HLPs as measured by 54 total indicators. A rating of 2 is suggestive of a belief that the skill is important, but the teacher does not apply the skill to their practice whereas ratings of 3 is suggestive of progression toward skill application (VanUitert & Holdheide, 2021). Although consistency was noted in baseline assessment administration, there was variation in the final assessment results, in which average administrative rating improved by 0.03 points (2.83). These results suggested that administrator perceive that teachers believe in the skills importance yet demonstrate limited application of the skill, yet teacher ratings improved by 1.14 points (4.11), suggesting consistent use of the practice with growing confidence. Despite varying perceptions of application of the

HLPs when comparing baseline and final assessment administrations, a moderate yet positive relationship between individual teacher and assigned administrator responses on individual indicators was observed across both administrations with an average correlation of individual responses of 0.684 on the initial assessment and 0.632 on final assessment results. However, the range of correlation when comparing baseline administration to final administration varied considerably (i.e., 0.521 baseline and 0.308 final), suggesting overall improved consensus of perceptions over the course of the study. Additionally, variability was noted with overall cumulative ratings of each HLP across teachers and administrators. Teachers identified their application of HLP 4 (i.e., Use multiple sources of information to develop a comprehensive understanding of a student's strengths and needs) as the highest-ranking practice related to use whereas administrators identified HLP 18 (i.e., Use strategies to promote active student engagement) as the most visibly used practice. A summary of comparative rankings is provided in Table 11.

Table 11

Comparative Rankings of HLP Use

Rank	Administrators N = 10		Teachers N = 10	
	HLP	*M*	HLP	*M*
1	#18	3.08	#4	4.22
2	#22	3.00	#22	4.22
3	#4	2.94	#5	4.00
4	#5	2.86	#15	4.00
5	#6	2.74	#18	4.00
6	#13	2.59	#6	3.89
7	#15	2.57	#13	3.89

Note. HLP = high-leverage practice. Use measured using a 5-point Likert scale (1 = *unfamiliar* to 5 = *deep understanding*).

Follow-up interviews of both teachers and administrators further expanded upon the specific application of HLPs. A comparative summary of teacher and administer responses is provided in Table 12. For HLPs 4, 5, and 6, which heavily emphasized the use of data, both teachers and administrators identified the use of multiple sources of information, including state, local, and curriculum-based measures and formative and summative measures as being used by study participants. Additionally, both groups identified the use of data sharing across professional learning communities (PLCs), grade-level teams, and general education staff and a demonstration of teacher use of these HLPs. Additionally, using academic and behavioral data was identified by teachers as a specific application of these HLPs whereas school administrators identified incorporating student input and the concept of '"indirect influence'" on general education staff as specific examples of HLP application.

Table 12

Summary of Applying HLPs in Practice

HLP topic	Teacher	Administrator	Both groups
Assessment (4, 5, & 6)	Academic and behavioral use of data to improve instruction	Student input Indirect influence on general education staff	Data sharing: groups and individuals (i.e., personal learning communities, grade-level teams, general education staff) Use of multiple data sources Rapport/home–school connection
Instructional (13, 15, 18, & 22)	Specific strategies: Flexible grouping, use of manipulatives, reteaching	Personalized learning	Differentiated instruction Specific strategies: visuals, modeling Rapport with students

Note. HLP = high-leverage practice.

Action RQ5

The fifth action RQ was: To what degree do participating teachers and administrators perceive the impact of targeted professional development on student learning?

RQ5 measured the perceived extent of the professional development's impact on student learning, consistent with Guskey's (2000) Level 5 questions, which suggests student leaning is the ultimate demonstration of professional development. Due to the variability associated with the evaluation of student learning, specifically those with disabilities who have individually calculated plans to address the impact of a disability on an individual's access to education, quantitative and qualitative measures were used. While findings allude to specific examples of student learning, due to the complex nature of the measurement of student learning, specifically related to students with disabilities, teacher and administrator perception was the emphasis of this research question. Formative and summative survey results completed by participating teachers evaluated the perception of benefit of each targeted skill at the end of each professional

development series in which one rating scale question was asked. Descriptive statistics were used to evaluate teacher responses as previously described.

Additionally, the HLP Self-Assessment Tool (VanUitert & Holdheide, 2021), completed by teachers and their respective supervisors prior to the beginning of the professional development series and then again at the end of the series, generated comparative results regarding teacher perception of demonstration of skill targeted in the professional development with administrator observation of each skill. Specific to this research question were assessment indicators that teachers or administrators rated a 5, suggestive of "teacher mastery of the skill with noted improvements in student learning." Descriptive statistics were used for assessment results, with relational data, described previously in RQ4 employed to assess consistency across individual teacher and administrator responses. Teacher and administrator interview questions provided qualitative examples of student learning in which responses were coded as outlined previously in the chapter.

Overall, teachers perceived individual sessions had a strong, positive impact on student achievement. Additionally, an increase in perceived impact on student learning was consistent across administrators and teachers over the course of the professional development in areas of academic performance, social/emotional/behavioral skills, generalization to a lesser restrictive environment, improved IEP goal progress, indirect impacts on student achievement, and improvements in adaptive skills. Although teachers and administrators both identified improvements in student achievement in the identified areas, the perceived impact in each area varied. Teachers noted academic achievement as the greatest area of perceived improvement, accounting for 30% of total examples in provided by the seven teachers interviewed, whereas administrators identified social/emotional/behavioral skills to be the greatest area of perceived

improvement, accounting for 42% of total examples generated across the five administrator interviews conducted.

Based upon survey results, as seen in Table 13, average ratings across the five sessions was 4.67 with responses ranging from 4.60 in Session 1 to 4.78 in Session 3. These results are consistent with teachers' perception of the professional development positively affecting student learning in which the average rating was 4.75.

Table 13

Average Teacher Perception of Impact on Student Achievement

Session	*M* Rating
1 ($N = 10$)	4.60
2 ($N = 10$)	4.73
3 ($N = 9$)	4.78
4 ($N = 8$)	4.63
5 ($N = 8$)	4.63

Note. Perception measured using a 5-point Likert scale (1 = *unfamiliar* to 5 = *deep understanding*).

An overall increase in rating designations of 5 was noted across both administrators and teachers when comparing baseline assessment to final assessment results; however, variation in frequency was noted across each administration, in which administrators gave 5 ratings more frequently during initial administration and teachers had more 5 designations on final administration. These results are consistent with findings related to RQ4, in which teacher perception of application of skills grew exponentially when compared to administrators, despite both groups noting increased use of the targeted skills. Comparative results suggested indicators of mastery and student achievement across all HLPs for both administrators and teachers;

however, an increase in singular teachers receiving 5 designations increased from baseline to final administration, which may be suggestive of varying rates of teacher growth in the provisionally licensed cohort. A comparison of designated ratings of 5 are provided in Table 14.

Table 14

Percentage of Indicators Receiving a 5 Designation

HLP	Administrators $N = 10$		Teachers $N = 10$	
	Baseline	Final	Baseline	Final
#4	20%*	40%	0%	100%*
#5	0%	62.5%	0%	75%
#6	25%	11.11%*	0%	77.78%
#13	54.55%	81.82%*	8.33%*	66.67%
#15	50%	37.5%*	0%	75%*
#18	0%	83.33%	16.67%	83.33%
#22	87.5%	87.5%	42.86%	100%

Note. HLP = high-leverage practice.
*Only a single teacher received a 5 designation for indicators in the HLP category.

Administrators and teachers both perceived growth in practice to the extent of visible signs of student achievement, and qualitative interviews were conducted to better identify examples of improvement in student learning. Interview participants were selected based upon final HLP assessment responses. In total, 12 interviews were conducted comprised of four administrators (i.e., 80% of total participating administrators) and seven teachers (i.e., 70% of total teacher participants). One administrator completed an interview for two teachers. Of the 54

indicators across the seven different HLPs, 11 indicators were designated a rating of 5,

suggesting teacher mastery of the skill with noted improvements in student learning. HLP 18:

Use of Strategies to Promote Active Student Engagement had the most 5 designations, with three

administrators awarding at least one or more indicator of this designation. As it relates to teacher

self-ratings, 24 indicators of the 54 total indicators were awarded a 5 with HLP 18: Use of

Strategies to Promote Active Student Engagement receiving the most 5 designations, which was

consistent with administrator ratings. Overall, both teachers and administrators consistently

identified a range of examples of noted improvements in student learning which included

academic, social/emotional/behavioral, access to a lesser restrictive environment, IEP, adaptive

skills, and indirect improvements. Examples of academic improvements noted included

increased performance on curriculum-based measures and formative and summative classroom

assessments. Noted improvements in social/emotional/behavioral learning included an overall

decrease frequency in challenging behavior and discipline reports with an increase in positively

perceived peer and teacher relationships, and increases task completion (i.e., engagement) and

confidence. When considering access to a less restrictive environment, examples included

decreased time in special education separate settings and the generalization of skills taught in the

special education setting to the general education setting. Improvements in IEP progress were

noted both in areas of increases in goal mastery and overall improvements as summarized in

students' present levels of performance. Noted areas of improvement for adaptive skills included

increases in independence, self-management, and self-correction. Additionally, interview data

revealed trends in indirect examples in which the improvement in application of the HLPs

improved student learning. These included examples of increased collaboration among general

and special educators, improved instructional rigor, and increased instructional responsiveness

where 10% of teacher interview responses and 5% of administrator responses generated indirect examples. As summarized in Table 15, although teachers and administrators had similar perspectives on the different types of improvement in student learning that were observed, they differed slightly in their degree in which each type of improvement was observed. Teachers perceived the highest frequency of improvement to be in academic skills (30% of interview responses), followed by social/emotional/behavioral skills (25%), generalization to a lesser restrictive environment (20%), IEP (10%), indirect (10%), and adaptive skills (5%). However, administrators perceived the highest frequency of improvement to be in social/emotional/behavioral areas (42.86%) followed by academic (28.57%) improvements. Additionally, administrators viewed improvements related to generalization and IEP performance alternately when compared to teachers' perspectives.

Table 15

Comparison of Perceptions of Overall Improvement in Student Learning

Student learning topic	Teacher (%)	Administrator (%)
Academic	30	28.57
Social/emotional/behavioral	25	42.86
Generalization to less restrictive environment	20	4.76
IEP	10	14.29
Indirect	10	4.76
Adaptive skills	5	4.76

Note. IEP = individualized education program. Perception measured using a 5-point Likert scale (1 = *unfamiliar* to 5 = *deep understanding*).

It is important to note one administrator reflected that a designated 5 rating may be subjective relative to other teachers and based on context in which "average teachers who have

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potential look like shining stars" given the current state of the individual school, the district, and the teaching profession. As a result, these results may not only be interpreted as indicators of current improvements in student learning, but rather may have some predictive value for future increases in student achievement.

Summary of Findings

Overall, I successfully identified perceived key features that positively contributed to professional development participation and subsequent learning for provisionally licensed special education teachers in areas of instructional delivery and case management. Additionally, I confirmed alignment of the provided professional development with the expectations of school administrators, which was perceived to be linked to an increase in teacher understanding. Finally, I demonstrated an increase in use of targeted skills and a positive impact on student learning in academic, social/emotional/behavioral, IEP, generalization, and adaptive skills areas with additional indirect positive impacts on student learning noted. Relative consistency existed across RQs about teacher and administrative perceptions, which were overwhelmingly positive, but variability was demonstrated at the micro level, including specific examples of use and improvement in student learning and perceived rate of teacher growth. Subsequently, and consistent with the action research cycle described in Chapter 3, this initial cycle was successfully completed with future cycles needed to further explore and address noted areas of variability and assess the replicability and generalization of these results including the replication of this model for future provisionally licensed special education teachers and extension learning opportunities for study participants who still maintain a provisional licensure status.

CHAPTER 5

RECOMMENDATIONS

As outlined in Chapter 4, this study is suggestive of overall positive results related to the implementation of district-based professional development supports for provisionally licensed special education teachers. As demonstrated in the study, participants had favorable reactions to the professional development, increased their perceived learning in areas of instruction and case management which were determined to align with administrative expectations that were perceived to improve professional practices and student achievement. This chapter summarizes key findings of the study and provides an interpretive discussion related to research questions (RQs), study results, limitations, and areas of future research. Leadership recommendations are proposed related to study findings.

Summary of Major Findings

When considering the first two levels of Guskey's (2000) evaluation of professional development which considers participant reactions and learning, this study demonstrated participant favorable reactions and the identification of specific elements of professional development that led to successful participation. This study asserts that logistical considerations, indirectly related to the content of the professional development, such as the provision of food, time to work, and a general environment that positively impacted the outcomes of professional development. Additionally, findings from this study affirm previous research about the elements of high-quality professional development that promote active engagement, applicability to practice, collaboration, and is aligned with administrative expectations were also relevant to the

learning of provisionally licensed special education teachers (Darling-Hammond et al., 2017;

Kennedy, 2016; Learning Forward, 2011; Sims & Fletcher-Wood, 2021). Likewise, an emphasis

on basic understanding of skills and knowledge improves adherence to administrative

expectations for provisionally licensed special education teachers who may have less experience

was suggested by these results. Such emphasis on skills and knowledge should be collaboratively

identified with stakeholders during initial professional development formation and revisited

throughout the implementation cycle. In addition to organizational alignment, the promotion of

generalized frameworks and taxonomies, specifically the high-leverage practices in special

education (McLeskey et al., 2017) used in this study, can increase teacher learning and

subsequent application of targeted skills. Although applicability of skills, as supported through a

generalized framework, was perceived to increase teacher learning and practice, results from the

study suggest stronger improvement in learning and use was associated with case management

application when compared to instructional application. I found the delivery of a district-based

professional development series was perceived to improve student learning by both

administrators and participating teachers; however, the types of improvement and perception of

rate of student growth varied between administrators and teachers. It is important to note that this

study only included 10 total teachers, which is a relative limitation of the study; however, based

upon the size of the district in which this teacher population comprises of 22% of the total

special education teacher population, results are significant relative to the division. Table 16

provides a summary of key findings related to each RQ.

Table 16

Summary of Key Findings

RQ	Study results	Key findings	Supporting literature
1: What logistical features of district-led professional development do non-licensed and provisionally licensed special education teachers indicate are most important to their successful participation in the professional learning experience? 2: What instructional experiences of district-led professional development do non-licensed and provisionally licensed special education teachers consider to be most relevant to case management and instructional delivery responsibilities?	Key logistics including collaboration, opportunities to form relationships, the provision of food, and time to work were most important to the overall experience of the teachers in the professional development series. Participants' experiences in professional development opportunities positively impact participant learning in professional development. Key experiences including activity-based learning, application to practices, timeliness of topics and consultative support with experts were most important to the overall experience of the teachers in the professional development series. Indicators of high-quality professional development, related to learning, are consistent with the perceptions of learning for provisionally licensed teachers.	Professional development should include elements indirectly related to content, organic structures, and prescriptive supports.	Darling-Hammond et al. (2017) Guskey (2000) Learning Forward (2011). Kennedy (2016) Sims & Fletcher-Wood (2021)
3: To what degree does the targeted professional development align with what teachers perceive to be the expectations of their school administrators?	Alignment between professional development and administrative expectations directly impacts the generalization of professional development to teacher practice. When alignment exists, teacher knowledge improves adherence to expectations.	What happens prior to and following professional development impacts the perceived impact of the professional development.	Choy et al. (2006) Gist (2019) Guskey (2000) Hanover Research (2014)

RQ	Study results	Key findings	Supporting literature
4: To what degree do non-licensed and provisionally licensed special education teachers incorporate targeted professional development into their professional practice?	Both administrators and teachers perceived improved teacher practice as a result of the professional development; however, teachers perceived their growth at a higher rate. Although changes in teacher practice were noted in areas of case management and instruction, the professional development impacted case management skills to a greater extent. The use of the HLP framework (McLeskey et al., 2017) resulted in improvements in teacher practice.	Results of teacher growth, change in practice, and student achievement are consistent with self-efficacy research. Values, both individual and organizational, may play a role in the perceived impact of professional development. Generalized frameworks, specific to a professional scope of practice, can improve teacher practice for provisionally licensed staff.	Bandura (1977) Baral (1968) Forzani (2014) Guskey (2000) McDonald (2013)
5: To what degree do participating teachers and administrators perceive the impact of targeted professional development on student learning?	Perception of improvement in student learning, relative to the impact of professional development, varies between administrators and teachers in which teachers perceive their growth and impact on student learning to increase at a higher rate than perception of their administrators.	Teacher self-efficacy directly impacts perceptions of student achievement.	Bandura (1977) Guskey (2000) Kee (2011) Kim & Seo (2018) Lowden (2006) Visible Learning (2022)

Note. RQ = research question.

Content Versus Context

Consistent with Guskey's (2000) model of teacher change, participant reactions are the

entry point for professional development impact which directly influences teaching and learning.

However, participants may react to a wide range of variables related to professional development

features. Through the study, logistical features of professional development (i.e., learning environment, format, materials, and organization) were revealed as positively received by participants across all sessions, but the opportunities for collaboration and relationship-building, availability of food, and dedicated time to work were noted as having the greatest value and impact on teacher learning. This supported Guskey's (2000) proposed connection between participant reactions and subsequent learning. Additionally, Darling-Hammond et al. (2017) highlighted the importance of collaborative opportunities to access subject matter experts. Study findings support this research as participants identified collaboration and relationships as key values associated with professional development experiences. This suggests content is important when developing and delivering professional development, but context-specific elements of professional development indirectly related to the content (e.g., time to work) or more organic in nature (e.g., collaboration) are equally important to improve teacher learning, use of skills, and ultimately student learning. Additionally, consistent with Guskey's (2000) research on professional development, teachers must master targeted skills or content prior to changes in professional practice and ultimately student achievement and the impact on learning directly related to the experiences provided in professional development. Consequently, professional development must still be prescriptive- intentionally developed around specific content and aligned with professional practice. Results of this study suggest participants perceived activity-based learning opportunities, alignment of professional development topics with both their practice overall and the timeliness of the topic, and the provision of consultative support with district administration to be most impactful on their learning. These results are consistent with current research that indicates that effective professional development includes active learning activities, aligns with an individual's professional practice, provides expert support, offers

feedback, and is sustained (Darling-Hammond et al., 2017; Kennedy, 2016; Sims & Fletcher-Wood, 2021).

Professional Development Alignment as a Reciprocal and Continual Process

Gist (2019) suggested the provision of district-based supports improved the likelihood of alignment with expectations, which increases the impact of teacher supports. However, research cautions that if the district supports are not aligned throughout the organization, the positive impacts of professional development will not be actualized (Hanover Research, 2014) and the use of the professional development and subsequent improvement in student learning will go underrealized or perhaps even unchanged (Guskey, 2000). Consistent with these research findings, study results suggest the implementation of district-based professional development had strong alignment with instructional and case management topics, school-based administrator expectations, and consequently resulted in a change in teacher practice and perceived improvement in student achievement. This suggests that in the absence of alignment, limited change in teacher practice and subsequent student achievement would result. Additionally, because of the limited experiences of provisionally licensed teachers and the reciprocal relationship between learning and alignment with administrator expectations, professional development should intentionally include skills that align with administrator expectations to promote the success of this particular teacher population. Relative to this study, an increase in knowledge may positively relate to an increase in adherence to expectations for provisionally licensed teachers, who may have less initial knowledge in targeted professional development areas. Furthermore, qualitative indicators, specifically expressed by administrators, suggest that the overall perception of the professional development prior to implementation, including perceived value and need, and follow up activities were important to the overall impact of the

professional development. The relationship between participant learning, organizational

alignment, and subsequent teacher practice, as highlighted in the study, demonstrates the

reciprocal relationship between professional development planning, delivery, and follow up.

These actions should be a continual process that encompasses teachers, school leaders, and

district administrators.

Perceptions of Learning and Growth

Although study results indicate both administrators and teachers saw evidence of teacher

growth and improvement in practices for case management and instruction, teachers perceived

their growth to be at a higher rate than administrators. These perceptions directly related to

perceptions of student achievement where teachers saw greater evidence of improvement in

student learning. These results connect to research on teacher self-efficacy where teacher

perceptions of their competence improve their practice and ultimately their effectiveness

(Bandura, 1977). In addition to distinctions between the rate of growth, participants in this study

experienced greater growth in areas of case management skills when compared to instructional

skills. These results are consistent with generalized perceptions of special education as a highly

litigated and compliance driven field. Consequently, study results could be indicative of specific

district or departmental values that were emphasized and reinforced to a greater extent than other

skills. These findings should be monitored to ensure continual alignment with district and

school-based priorities, as previously described, which could impact perceptions of student

learning in the future.

When considering the impact on teacher practice related to targeted skills, specifically

high leverage practices in special education (McLeskey et al., 2017), study results suggested a

perceived increase in the use of targeted skills due to the professional development. As the study

included teachers across multiple grades, instructional assignments, and curricula areas, this implies that emphasizing a generalized framework, and not content or assignment specific professional development, can improve teacher practice. These results are supported by early research conducted by Baral (1968), which proposed that a common framework that is concrete yet flexible promotes intended teaching behaviors, maximizing teacher effectiveness and student learning (Forzani, 2014; McDonald, 2013). By using HLPs to promote common language and collective practice, teachers developed an understanding of application of the skill as a whole but also relative to their context.

Teacher Self-Efficacy

Consistent with Guskey's (2000) model of professional development evaluation, impact on student learning is one of the most important indicators of successful professional development, second only to changes in teacher attitude and belief. As seen across qualitative and quantitative measures for both administrators and teachers, the implementation of professional development for provisionally licensed special education teachers is perceived to improve student learning. However, perceptions of the degree of impact in each area varied between teachers and administrators. Although perceived teacher growth and improvement in student learning was noted by both teachers and administrators, the rate of the teacher growth and subsequent learning reported by teachers was substantially greater than their corresponding administrators. This variance in results are in alignment with current research related to teacher self-efficacy that demonstrates a significant relationship between teacher efficacy and student achievement (Kee, 2011; Kim & Seo, 2018; Lowden, 2006). As a result of improvement in teacher learning and subsequent application of targeted skills, students learn more.

Discussion of Findings

Although the results of this study are limited to provisionally licensed special education teachers and the study's prescribed schedule in which teachers participated in the full-day professional development monthly, many of the elements identified by study participants could be replicated across different teacher populations and implementation schedules. Future research should be done to determine generalization of results to other teacher populations, professional frameworks, and professional development delivery schedules.

Study results highlight the benefit of both content and context, which suggests that the 'softer' elements of professional development related to the overall learning environment, such as food, the ability to interact on personal and professional levels, and intentional pacing of the professional development that promotes independent work time, are values that promote engagement and teacher learning. These results support and expand upon previous research conducted by Darling-Hammond et al. (2017), which identifies that collaboration is an important element of professional development and verify Guskey's (2000) assertion that the experience of the teacher is foundational to learning, use, and ultimately student learning. In the current educational professional development landscape these are innumerable priorities and limited time. These findings serve as a reminder that the recentering of professional development opportunities that emphasize key priorities and quality over quantity are important aspects to the overall impact of professional development.

In addition to specific features of the implemented professional development for provisionally licensed special education teachers, I identified specific experiences that were most relevant to teacher learning and practice. These included activities to promote engagement and applicability to practice which are consistent with current research that suggests that the

activities, content, and delivery in professional development directly impact the learning impact of the professional development (Darling-Hammond et al., 2017; Kennedy, 2016; Sims & Fletcher-Wood, 2021). Additionally, connections were made between the concept of professional development pacing, including session pacing and the pacing of topics in a series. Study results reporting features of the professional development highlight the value of a decreased pacing of content to afford time for independent work. Additionally, results suggest the pacing of topics to align with timely application of skills is also important to the overall participant experience, specifically participant learning. When considering implications between content, delivery, and pacing, study results are indicative of an important interplay between the what, how, and when of professional development for provisionally licensed special education teachers. Additionally, these results demonstrate the value of the loose-tight leadership principles, balancing adherence to foundational structures while giving deference to the organic nature of interaction (Collins, 2001). The results are promising and provided recommendations for leadership practice, discussed later in the chapter. As previously described, due to study limitations related to study participants and the structure of the intervention, future research should explore the impact of specific experiences on the learning of other teacher groups and the perceived impact of identified learning activities following different implementation schedules, which may impact the prioritization of different activities based upon time restraints, content, and context.

Study results displayed favorable alignment between the provision of district-based professional development topics with overall school administrator expectations. This perceived alignment was interpreted as a positive factor in the overall impact on teacher learning and practice and improvement in student outcomes based upon supporting research conducted by Hanover Research (2014), which suggested the value of professional development is diminished

in the absence of alignment of the professional development with the organization (i.e., the district and school). This highlights the value of local efforts to develop staff as local needs and contextual variables can be more intentionally considered and explicitly addressed, which is supported by Gist's (2019) findings. Additionally, qualitative results also highlight the impact of increased knowledge on alignment with expectations, demonstrating the relationship between learning and the organization, as seen in Guskey's (2000) model of professional development evaluation. Although the study did not intentionally include elements of collaboration between district- and school-based administrators, results suggested a relatively high level of support for the professional development by school administrators and trust in district administration. Although this positively impacted study outcomes, research conducted by Choy et al. (2006) served as a reminder that district-level professional development should be an ongoing collaborative effort throughout the planning, implementation, and follow-up stages. This was supported by administrator perspectives gathered through qualitative interviews in which the importance of school administrator knowledge of the professional development content and format, and administrative subsequent follow up with teachers to reinforce key skills at the school level was noted as important. A strong alignment existed between the professional development and school administrator expectations, but these results may be relative to the perspectives and experiences of individual administrators. Specific to this study, most participating school administrators were new to their assigned school. As a result, their understanding of the overall instructional needs of the school, special education department, and individual teacher needs may have been restricted. Likewise, their knowledge and understanding of application of the HLPs was not a focus of this study. Consequently, although general understanding of the HLP was assumed, overall understanding of the HLPs was not assessed

and, therefore, could have impacted administrator perceptions of their use. Future research should be conducted to explore the impact of contextual elements that may impact administrator perceptions such as length of time in a supervisory position as well as professional development to support administrator understanding of HLPs and other topics in special education on their perception of teacher practice and subsequent student outcomes.

Lack of role clarity and the varying functions served specifically by special education teachers in particular can lead to a wide variety of concerns related to teacher practice and student learning (Bettini et al., 2017; Billingsley, 2004; Billingsley et al., 2019). However, the establishment of a common set of concrete yet generalizable practices is necessary to promote intended teacher behaviors (Baral, 1968). The emphasis on a common framework may be of particular importance to special education teachers who are subjected to increased ambiguity in expectation, dissonance, and overload due to their dually functioning role as teacher and case manager (Bettini et al., 2017; Billingsley, 2004; Billingsley et al., 2019). Supporting previous research, this study indicated teachers successfully applied their learning to their respective instructional and case management practices. This suggests that the integration of professional frameworks improves practice, which then improves student learning, building upon Guskey's (2000) assertions. These results are further mirrored in Frozani's (2014) work, which proposes that a common framework is critical to professional development in multiple ways, including in the identification of what needs to change, influence of the change, and subsequent measurement of the change. Interestingly, comparative results across baseline and final administration of the HLP Self-Assessment demonstrated growth in practices beyond that of the targeted practices which could be suggestive of generalization effects or the impact of other factors on teacher growth beyond that of the professional development. Additionally, comparative results between

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teacher experience (i.e., RQ1); learning (i.e., RQ2); and application to practice (i.e., RQ4) are suggestive of a reciprocal relationship among the three indicators that should be considered when developing professional development activities. Favorable learning experiences result in favorable improvements in practice.

Interestingly, although increased application of skills was noted across areas of case management and instructional practices, the areas of greatest application were perceived to be those related to special education case management practices. The study was devised to target both instructional and case management tasks in content equally, emphasizing three HLPs related to assessment and four practices related to instruction. Likewise, equal time was allotted to instructional and case management topics within each session. This difference between skill emphasis, perceived growth, and application to practice may be indicative of specific values imparted by either participants or facilitators. This may imply skewed outcomes between values and emphasized skills targeted within professional development. Additionally, such values or priorities may or may not align across organizational structures such as between district and school administrators or administrators and teachers.

As previously identified, due to study limitations, future research should be conducted to explore the generalization of alternate frameworks for other teacher populations. Additionally, continued research is necessary to compare results across other HLPs and to narrow the emphasis on specific teacher populations in special education such as special education teachers assigned to specific grade levels, curriculum tracks, and service delivery models. Likewise, because provisional licensure tracks span multiple years and this study's scope was limited to a single school year, further research should explore ongoing supports for provisionally licensed special

education teachers and how those supports differ from initial professional development over time.

Actualizing the higher levels of professional development impact relative to Guskey's (2000) model, study results are suggestive of perceived positive impacts on student learning because of the professional development. Although consistency was evident between administrators and teachers across the varying types of perceived impact on student learning, variance in the perceived impact of each type was revealed. These results may be explained by the differing roles and contexts that teachers and administrators serve. For example, teachers that are consistently implementing a variety of formative, classroom, and curriculum-based measures may observe evidence of student academic progress more frequently whereas administrators may be more reliant on comprehensive measures such as benchmarks or cumulative assessment results to determine impact on student learning. Likewise, the heavy emphasis on discipline in the role of some school administrator positions more frequently aligns to social/emotional/behavioral skills where improvement in these areas may be more evident from the lens of the administrator.

When further considering the outcomes associated with perceived student achievement where greater improvement was noted by teachers, results are consistent with research that associates teacher self-efficacy with increases in student achievement (Kee, 2011; Kim & Seo, 2018; Lowden, 2006; Visible Learning, 2022). Consequently, based on these results, further investigation should focus on understanding to what degree administrative perception of teacher growth and student learning is associated with long-term teacher performance. Additionally, because the knowledge and experience of provisionally licensed staff are limited when compared to traditionally licensed teachers, future research should seek to determine if the initial emphasis

on teacher self-efficacy is sufficient to achieve desired student outcomes during the interim period as the teacher works towards professional competence for alternatively licensed staff.

Although the study did prove improve perceptions of student learning, it is important to consider the limitations of identifying student achievement based upon the scope of the study and the student population. Because the scope of the study did not include cumulative or consistent measures of student achievement, further research is needed to determine the true impact on student learning beyond that of perception. Additionally, due to the wide range of needs associated with students with disabilities and the subsequent wide range of possible achievement indicators, more narrow research is needed to truly affirm impacts on student achievement beyond that of perception.

Implications for Policy and Practice

This study highlights key elements to the provision of district-based professional development that demonstrated an improvement in teacher learning and practice and student achievement for provisionally licensed special education teachers. Consequently, results support five leadership recommendations including those related to intentionally created professional development opportunities for provisionally licensed special teachers, reflective practice, monitoring and evaluation. Table 17 outlines practice recommendations based upon study key findings.

Table 17

Practice Recommendations

Key findings	Implications for practice
Professional development should include elements indirectly related to content, organic structures, and prescriptive supports.	Leaders should apply loose-tight principles (Collins, 2001) when developing professional development.
Results of teacher growth, change in practice, and student achievement are consistent with self-efficacy research.	Leaders should implement high-quality professional development to support provisionally licensed teachers.
What happens prior to and following professional development impacts the perceived impact of the professional development.	Leaders should plan to support precursor and follow-up activities beyond isolated professional development opportunities.
Values, both individual and organizational, may play a role in the perceived impact of professional development.	Leaders should continually evaluate the alignment between professional development and the priorities and beliefs of the organization.
Generalized frameworks, specific to a professional scope of practice, can improve teacher practice for provisionally licensed staff.	Leaders should base professional development, specifically for provisionally licensed staff, on generalized professional frameworks.
Teacher self-efficacy directly impacts perceptions of student achievement. The relationship between teacher perceived growth and improvement in student learning is consistent with research related to teacher self-efficacy.	Leaders should focus professional development opportunities and subsequent measurement indicators on self-efficacy for less experienced teachers.

Professional Development Intentionality

Educational leaders must be intentional in promoting an overall positive experience for participants engaging in professional development. As a result of confirmed findings in which consistency between participant reactions and participant learning was established, educational leaders must implement professional development opportunities that promotes relationships and collaboration, hospitality, and is appropriately paced. Seemingly secondary considerations when developing professional development such as the provision of food, time to complete work, and the availability of expert staff can be just as impactful to professional development outcomes as the content itself. A balance between the overall purpose of the professional development must be established with features of the professional development that may be indirectly related to

professional development content. Consequently, professional development should integrate a foundational, 'tight' structure based upon key priorities or principles which giving deference to intentional and autonomous 'loose' learning opportunities by which individual connections and organic learning may occur (Collins, 2001).

Support of Alternatively Licensed Staff

Educational leaders must be prepared to differentially support alternatively licensed staff into their schools. Based upon the immediate needs related to the teacher shortage crisis and subsequent opportunities related to alternate pathways to teacher licensure, teacher needs will continue to vary from those of traditionally licensed novice teachers. Confirmed findings regarding specific activities related to high-yield professional development suggest that the development of research-based programming to support provisionally licensed special education teachers can positively impact teacher learning and perceptions on student achievement. Due to the impact of perquisite learning on practice and subsequent student achievement, district leaders should consider creating professional development specifically tailored to the needs of unique teacher populations, specifically provisionally licensed staff. These professional development sessions should initially promote teacher self-efficacy through the application of elements of high-quality professional development, including activities to promote learning, align learning objectives with practice, and offer opportunities for teachers to consult and collaborate with their peers and subject matter experts.

Professional Development Alignment

Educational leaders must be poised to align professional development with the beliefs and priorities of the organization, which requires ongoing reflective practice and collaboration. Due to the substantial relationship between professional development alignment with the

demonstration of professional expectations on the overall impact of professional development

opportunities, organizational alignment is crucial. Subsequently, as beliefs and priorities shift,

the continual evaluation of the alignment of professional development is necessary. Additionally,

because what happens prior to and following professional development directly impacts the use

of targeted professional development and subsequent impact on student outcomes, leaders must

be prepared to engage in collaborative activities with various stakeholders during the planning

and implementation of professional development opportunities to promote alignment with the

organization and follow-up activities to promote the application of targeted professional

development. Furthermore, due to the varying perspectives across organizations regarding

priorities for professional development and based upon the impact of alignment on the overall

impact of professional development, a reflective practice should be incorporated throughout the

development, delivery, and evaluation of professional development to ensure alignment between

the impact on teacher practice and organizational values.

Professional Frameworks as a Foundation

Professional development for provisionally licensed teachers should be based upon

broad, research-based frameworks that promote application and generalization of targeted skills,

concrete understanding of the expectation, and connectivity of the targeted skill to broader

understandings of teaching practices. Teacher effectiveness and ultimately student achievement

benefit from unifying understanding in both common language and practice. Professional

development for alternatively licensed staff is no different. As a result, educational leaders must

first identify key frameworks relative to educational context and consistently model the

integration and application of the framework in both scope and breadth.

Self-Efficacy First

When supporting provisionally licensed staff, educational leaders should prioritize professional development opportunities that promote teacher self-efficacy. As demonstrated through study results, targeted professional development results in greater improvements in teachers' perception of growth and impact on student achievement. Consequently, other indicators of teacher growth and student learning should be a secondary emphasis when working with provisionally licensed teachers with substantially less experience and knowledge.

Summary

I assessed the logistical features, learning experiences, organizational alignment, teacher learning outcomes, and perceived impacts on student achievement of a professional development series for provisionally licensed special education teachers. Overall, this study suggests that the systematic development and sequential implementation of professional development based on the HLPs in special education framework (McLeskey et al., 2017) to target instructional and case management skills for alternately licensed special education teachers is perceived to positively impact teacher learning and practice and student achievement. As a result of specific findings related to the constructs of the professional development, organizational alignment, and examples of application to teachers' professional practice and student achievement indicators, it is recommended that educational leaders consider the development of professional development supports for provisionally licensed staff that is intentional, evaluated, and promotes teacher self-efficacy. Although the interpretations and recommendations may be generalized to other areas of applicability in the field of education, the summary of major findings, discussion, and impacts on policy and practice explored in this chapter are relative to the study demographics and contexts outlined in previous chapters, specifically provisionally licensed special education teachers in an

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urban school district in Virginia, United States. Study replication and generalization of findings should be approached with caution and are specific areas of recommendation for future research, which is needed to generalize these results beyond the study's targeted population and implementation schedule and to further explore the relationships between teacher and administrator perceptions of the impact on teacher practice and student learning. Study results are suggestive of continuation of this model for provisionally licensed staff with possible extension or further differentiation for alliteratively licensed teachers throughout their multi-year pursuit of full teacher licensure.

APPENDIX A

SAMPLE DAILY PROFESSIONAL DEVELOPMENT SCHEDULE

	Activity	Staff role	Design element	Additional resources
8:00am	Welcome & introductions	Facilitator	Relationship building; collaboration	District-provided breakfast
8:30–10:30am	HLP PD	Facilitator & coach	Direct instruction; collaboration	HLP book & training materials
10:30–11:30am	Participant choice	Coach & mentor	Independent work; collaboration; explicit feedback	N/A
11:30am–12:15pm	Working lunch	Colleague	Relationship building; collaboration	District-provided lunch
12:15–2:15pm	Case management PD	Supervisor & coach	Independent work; collaboration; explicit feedback	N/A
3–4pm	Participant choice	Coach & mentor	Independent work; collaboration; explicit feedback	N/A

PARTICIPANT SURVEY QUESTION (FORMATIVE)

1) Rate the following statements based on your experiences related to the delivery of today's professional development.
    a) The facilities and learning environment were conducive to my professional learning.
        (1) Strongly disagree
        (2) Disagree
        (3) Neither disagree or Agree
        (4) Agree
        (5) Strongly agree
    b) The format of the professional development promoted my participation.
        (1) Strongly disagree
        (2) Disagree
        (3) Neither disagree or Agree
        (4) Agree
        (5) Strongly agree
    c) The provided materials contributed to my professional learning.
        (1) Strongly disagree
        (2) Disagree
        (3) Neither disagree or Agree
        (4) Agree
        (5) Strongly agree
    d) The session was well organized and delivered by the facilitator(s).
        (1) Strongly disagree
        (2) Disagree
        (3) Neither disagree or Agree
        (4) Agree
        (5) Strongly agree
Please explain your response for any statement you identified as 'disagree' or 'strongly disagree'
2.) Rate the following statements based on your experiences related to the content of today's professional development.
    a.) The professional development was relevant to my instructional practice.
        (1) Strongly disagree
        (2) Disagree
        (3) Neither disagree or Agree
        (4) Agree
        (5) Strongly agree
    b.) The professional development was relevant to my duties as a case manager.
        (1) Strongly disagree
        (2) Disagree
        (3) Neither disagree or Agree
        (4) Agree
        (5) Strongly agree

Please explain your response for any statement you identified as 'disagree' or 'strongly disagree'

3.) Rate the following statements based on your experiences in today's professional development.

    a.) The professional development was relevant to my instructional practice.
        (1) Strongly disagree
        (2) Disagree
        (3) Neither disagree or Agree
        (4) Agree
        (5) Strongly agree

    b.) The professional development aligned with my principal's case management expectations of me.
        (1) Strongly disagree
        (2) Disagree
        (3) Neither disagree or Agree
        (4) Agree
        (5) Strongly agree

Please explain your response for any statement you identified as 'disagree' or 'strongly disagree'

4.) Rate the following statements based on your experiences in today's professional development.

    a.) The professional development will improve my practice as a teacher.
        (1) Strongly disagree
        (2) Disagree
        (3) Neither disagree or Agree
        (4) Agree
        (5) Strongly agree

    b.) The professional development will improve my practice as a case manager.
        (1) Strongly disagree
        (2) Disagree
        (3) Neither disagree or Agree
        (4) Agree
        (5) Strongly agree

    c.) As a result of the professional development, my students will have better learning outcomes.
        (1) Strongly disagree
        (2) Disagree
        (3) Neither disagree or Agree
        (4) Agree
        (5) Strongly agree

Please explain your response for any statement you identified as 'disagree' or 'strongly disagree'

5.) Select the statement that best describes your understanding of (targeted HLP) prior to participating in the professional learning.
        (1) Not familiar
        (2) Somewhat familiar
        (3) Familiar
        (4) Good understanding

(5) Deep understanding

6.) Select the statement that best describes your understanding of (targeted HLP) after participating in the professional learning.
- (1) Not familiar
- (2) Somewhat familiar
- (3) Familiar
- (4) Good understanding
- (5) Deep understanding

7.) Select the statement that best describes your understanding of (targeted case management skill) prior to participating in the professional learning.
- (1) Not familiar
- (2) Somewhat familiar
- (3) Familiar
- (4) Good understanding
- (5) Deep understanding

8.) Select the statement that best describes your understanding of (targeted case management skill) after participating in the professional learning.
- (1) Not familiar
- (2) Somewhat familiar
- (3) Familiar
- (4) Good understanding
- (5) Deep understanding

9.) The best part of the day . . .

10.) I learned . . .

11.) I plan to use my learning in the following ways . . .

12.) Please provide additional comments or suggestions.

APPENDIX C

PARTICIPANT SURVEY QUESTION (SUMMATIVE)

1.) Rate the following statements based on your OVERALL experiences related to participation in the Provisionally Licensed Cohort.

  a.) The overall delivery (facilities, format, materials, and session organization) were conducive to my professional learning.
- (1) Strongly disagree
- (2) Disagree
- (3) Neither disagree or Agree
- (4) Agree
- (5) Strongly agree

  b.) The overall professional development series was relevant to my instructional and case management duties.
- (1) Strongly disagree
- (2) Disagree
- (3) Neither disagree or Agree
- (4) Agree
- (5) Strongly agree

  c.) The overall professional development series aligned with my principal's expectations of me as a teacher and case manager.
- (1) Strongly disagree
- (2) Disagree
- (3) Neither disagree or Agree
- (4) Agree
- (5) Strongly agree

  d.) The overall professional development series improved my practice as a teacher and case manager.
- (1) Strongly disagree
- (2) Disagree
- (3) Neither disagree or Agree
- (4) Agree
- (5) Strongly agree

  e.) As a result of participating in the professional development series, my students have had better learning outcomes.
- (1) Strongly disagree
- (2) Disagree
- (3) Neither disagree or Agree
- (4) Agree
- (5) Strongly agree

APPENDIX D

INTERVIEW PROTOCOL

Overview of Implementation

Individual interviews were conducted with study participants and school administrators who completed the *High-Leverage Practices for Students With Disabilities Self-Assessment Tool* (VanUitert & Holdheide, 2021) and rated one or more of assessment indicators a 5, suggesting teacher mastery of the practice with noted improvement in student learning. Although both administrator and teacher interviews sought to address the answer to RQ4 (i.e., use of teaching learning) and RQ5 (i.e., improvement in student learning), slightly different scripts were developed for administrators and teachers due to the different roles they played in the study. Prior to the interviews, both the interview scripts and questions were reviewed by a panel of licensed special education teachers who provided feedback regarding wording, for both grammatical correctness and message clarity. Additionally, feedback was provided on the main idea or key points of each question to ensure a common understanding prior to administration.

Administration

One-on-one, in-person interviews were conducted at a mutually agreeable time and location. All sessions were recorded.

Administrator Interview Script and Questions

Introduction:
"Thank you for participating in today's interview which is a part of my research of district-based supports for provisionally licensed special education teachers. Prior to this interview, you completed the Council for Exceptional Children's High-Leverage Practices Self-Assessment for teachers that you supervise who are participating in the Winchester Public Schools provisionally Licensed Cohort. The purpose of this interview is a follow up to survey questions that you rated a 5, suggesting teacher mastery of the skill with noted improvements in student learning. Because student achievement is difficult to measure due to the diverse needs of students with

disabilities, I am seeking to better understand, based upon your observations, what indicators are suggestive of improvements in student learning related to the High-Leverage Practices."

"You previously provided your informed consent outlining the nature of the study and your voluntary participation in today's interview. Information shared in today's interview will be kept confidential and no personally identifying information will be shared. I will be audio recording this interview. The interview will only be shared with the members of the research team and will be destroyed once the study is over."

"During the interview, I want you to know that I am listening but, because of the nature of qualitative research, I won't be providing any feedback such as affirmative statements or head nodding. I want to make sure I get your thoughts and that those aren't unintentionally influenced by me as a researcher. I may also repeat or paraphrase what you said back to you at points during the interview to ensure I am understanding your perspective. As I repeat and paraphrase, please let me know if my understanding is an accurate representation of your perspective, clarify any statements, and/or elaborate further as I want to be as accurate as possible."

"Do you have any questions before we begin?"

"I'm going to start the recording now."

[START RECORDING]

Interview Questions:

1. Share your experiences with provisionally licensed special education teachers this school year.
2. In your High-Leverage Practice Self-Assessment Survey, you rated indicators of (insert teacher's name) performance of (insert High-Leverage Practice) a 5, suggesting mastery of the skill. You cited examples such as (insert specific indicators designated a 5). Describe ways that you have seen (insert teacher's name) incorporate this High-Leverage Practice into their classroom.
3. A rating of 5 also indicates improvement in student learning. What are some specific examples of improvement in student learning as it relates to (insert teacher's name) use of (insert High-Leverage Practice) that you have observed?
4. What additional information would you like to share regarding your experiences in supporting provisionally licensed special education teachers and the impact of High-Leverage Practices on student outcomes?

[STOP RECORDING]

Exit:

"I have stopped the recording now."

"Thank you so much for your time and input today. I really appreciate it. I will be reviewing your interview and integrating your responses into a cumulative analysis which will not include any individual responses or personally identifying information. Final information will be reported in the form of my finalized dissertation presented to the College of William & Mary. Prior to the finalization of my research, if you think of additional information you would like to provide, please do not hesitate to contact me."

"Do you have any final questions?"

"Thank you again for your time today."

Teacher Interview Script and Questions

Introduction:
"Thank you for participating in today's interview which is a part of my research of district-based supports for provisionally licensed special education teachers. Prior to this interview, you completed the Council for Exceptional Children's High-Leverage Practices Self-Assessment and participated in the Winchester Public Schools Provisionally Licensed Cohort. The purpose of this interview is a follow up to survey questions that you rated a '5,' suggesting your mastery of the skill with noted improvements in student learning. Because student achievement is difficult to measure due to the diverse needs of students with disabilities, I am seeking to better understand, based upon your experiences, what indicators are suggestive of improvements in student learning related to the High-Leverage Practices."

"You previously provided your informed consent outlining the nature of the study and your voluntary participation in today's interview. Information shared in today's interview will be kept confidential and no personally identifying information will be shared. I will be audio recording this interview. The interview will only be shared with the members of the research team and will be destroyed once the study is over."

"During the interview, I want you to know that I am listening, but, because of the nature of qualitative research, I won't be providing any feedback such as affirmative statements or head nodding. I want to make sure I get your thoughts, and that your thoughts aren't unintentionally influenced by me as a researcher. During the interview, I may also repeat or paraphrase what you say to ensure I am understanding your perspective. As I repeat and paraphrase, please let me know if my understanding is an accurate representation of your perspective, clarify any statements, and/or elaborate further as I want to be as accurate as possible."

"Do you have any questions before we begin?"

"I'm going to start the recording now."

[START RECORDING]

Interview Questions:
1. Share your experiences in the Provisionally Licensed Cohort this school year.
2. In your High-Leverage Practice Self-Assessment Survey, you rated indicators of (insert High-Leverage Practice) a '5' suggesting your mastery of the skill. You cited examples such as (insert specific indicators designated a '5'). Describe ways that you incorporate this High-Leverage Practice in your classroom.
3. A rating of 5 also indicates improvement in student learning. What are some specific examples of improvement in your students' learning as it relates to (insert High-Leverage Practice)?
4. What additional information would you like to share regarding your experiences in the Provisionally Licensed Cohort or your experiences with the High-Leverage Practices?

[STOP RECORDING]

Exit:
"I have stopped the recording now."
"Thank you so much for your time and input today. I really appreciate it. I will be reviewing your interview and integrating your responses into a cumulative analysis which will not include any individual responses or personally identifying information. Final information will be reported in the form of my finalized dissertation presented to the College of William & Mary. Prior to the finalization of my research, if you think of additional information you would like to provide, please do not hesitate to contact me."
"Do you have any final questions?"
"Thank you again for your time today."

APPENDIX E

SELF-ASSESSMENT

High-Leverage Practices Self-Assessment Tool

Purpose: This resource will help preservice and in-service teachers reflect on and assess how well they are implementing high-leverage practices (HLPs) for students with disabilities. In the tool, teachers and teacher candidates can self-assess on all 22 HLPs or target only specific HLPs. The content for this self-assessment is based on the HLP resources developed in the last several years (e.g., HLP videos, HLP Leadership Guides, and Practice-Based Learning Opportunities).

The goals of this tool are as follows:

- To provide a resource that teacher candidates and in-service teachers can use to self-assess and reflect on their use of HLPs.

- To provide teacher candidates, faculty, in-service teachers, and administrators data on HLP implementation that can be used to guide professional learning and supports.

- To provide a broad measure on the ability of teacher candidates and in-service teachers to implement HLPs, which can serve as a basis of discussion with faculty and administrators.

Audience: This assessment tool is designed for general and special education teacher candidates, in-service teachers, faculty, and district administrators.

How to Use This Tool: This tool has four sections to represent the four areas of practice: (1) Collaboration; (2) Assessment; (3) Social/Emotional/Behavioral; and (4) Instructional. Teachers respond to the probes across the HLPs to indicate their understanding and use of HLPs in their classrooms using the following scale:

5 = Mastered. I already apply this skill to my work and have noted improvements in student learning.

4 = I can apply this skill to my work with some confidence.

3 = Making progress. I am just beginning to understand how to apply this skill to my work.

2 = I believe this concept and/or skill is important but do not yet understand how to apply it in my classroom.

1 = I am unfamiliar with this principle or element.

N/A = Not applicable.

Note: It is **not** expected that the entire self-assessment is given at one time. You can select which HLP self-assessment subtests you would like to complete. Not sure which one(s) you want to focus on? Try taking the short screener first.

For more information on HLPs, refer to https://highleveragepractices.org/.

Name:	Date:

Instructions: Rate the extent to which you feel successful in understanding and using the key skills from the HLPs in each domain.

    5 = Mastered. I already apply this skill to my work and have noted improvements in student learning.

    4 = I can apply this skill to my work with some confidence.

    3 = Making progress. I am just beginning to understand how to apply this skill to my work.

    2 = I believe this concept and/or skill is important but do not yet understand how to apply it in my classroom.

    1 = I am unfamiliar with this principle or element.

    N/A = Not applicable.

Collaboration Domain

HLP 1: Collaborate With Professionals to Increase Student Success

	Rate the extent to which you incorporate this HLP.	N/A	1	2	3	4	5
1	I use verbal active listening skills, such as paraphrasing and asking clarification questions.	☐	☐	☐	☐	☐	☐
2	I use nonverbal active listening skills, such as smiling and making eye contact, when I am talking with my colleagues.	☐	☐	☐	☐	☐	☐
3	I ask open-ended questions to encourage active participation and sharing of information from others.	☐	☐	☐	☐	☐	☐
4	I make statements that are accurate and descriptive rather than vague and evaluative.	☐	☐	☐	☐	☐	☐
5	I share resources with colleagues that provide guidance on strategies to support students with disabilities.	☐	☐	☐	☐	☐	☐
6	I problem-solve with colleagues using data to make decisions about services and instructional approaches designed to meet the individual needs of students with disabilities.	☐	☐	☐	☐	☐	☐
7	My colleagues and I have shared responsibility and accountability for the success of students with disabilities.	☐	☐	☐	☐	☐	☐

Comments:

HLP 2: Lead Effective Meetings With Professionals and Families

	Rate the extent to which you incorporate this HLP.	N/A	1	2	3	4	5
1	I set and articulate clear goals and expectations to ensure that meetings are informative and productive.	☐	☐	☐	☐	☐	☐
2	I schedule meeting times to ensure members' participation and share the date, time, location, projected length, and agenda for the meeting ahead of time, including any preparation expectations.	☐	☐	☐	☐	☐	☐

		N/A	1	2	3	4	5
3	I establish a welcoming and positive tone when greeting team members and ensure that all meeting members are introduced.	☐	☐	☐	☐	☐	☐
4	During the meeting, I encourage each team member to contribute to and have an equal voice in discussions.	☐	☐	☐	☐	☐	☐
5	I encourage and reinforce parent input during the meeting by asking guiding questions and including time on the agenda to garner parental input.	☐	☐	☐	☐	☐	☐
6	I provide an explanation of student data, including progress monitoring data, in a way that all team members can use the data to make informed decisions.	☐	☐	☐	☐	☐	☐
7	I summarize meeting accomplishments and establish next steps before the meeting ends.	☐	☐	☐	☐	☐	☐
	Comments:						

HLP 3: Collaborate With Families to Support Student Learning and Secure Needed Services

	Rate the extent to which you incorporate this HLP.	N/A	1	2	3	4	5
1	I communicate regularly with families openly and honestly, sharing student's successes, educational progress, and challenges.	☐	☐	☐	☐	☐	☐
2	I communicate with families using multiple modes (e.g., email, telephone, in-person, learning management systems, blog, class webpage).	☐	☐	☐	☐	☐	☐
3	I demonstrate a high level of knowledge in evidence-based strategies that support students with disabilities.	☐	☐	☐	☐	☐	☐
4	I communicate high expectations for my students and their families.	☐	☐	☐	☐	☐	☐
5	I treat families with dignity and respect.	☐	☐	☐	☐	☐	☐
6	I take time to learn about and honor my students and their families' cultural diversity. I apply this knowledge to my practice.	☐	☐	☐	☐	☐	☐
7	I make sure to clearly share ideas and actions that families can use to support a student's individualized education program goals and objectives.	☐	☐	☐	☐	☐	☐
8	I communicate with parents using a language and method that would make the information most accessible. If I do not speak the language used by the family, I take necessary steps to ensure that they get the information in a way that they can understand it (e.g., use a translator).	☐	☐	☐	☐	☐	☐
	Comments:						

Assessment Domain

HLP 4: Use Multiple Sources of Information to Develop a Comprehensive Understanding of a Student's Strengths and Needs

	Rate the extent to which you incorporate this HLP.	N/A	1	2	3	4	5
1	I use formal assessments (unit tests, reading inventory) to gather information about my students' academic strengths and areas of growth.	☐	☐	☐	☐	☐	☐
2	I use informal assessments (observations, checklists) to gather information about my students' academic strengths and areas of growth.	☐	☐	☐	☐	☐	☐
3	I ask my students about their preferences, strengths, needs, and long-term goals.	☐	☐	☐	☐	☐	☐
4	I ask my students' family members about student interests, motivations, health, language, and cultural experiences in school and at home to inform instruction.	☐	☐	☐	☐	☐	☐
5	I use information from various sources (school-based assessments, student input, and family input) to develop a comprehensive learner profile that will inform decisions related to individualized education programs. A comprehensive learner profile includes academic, social, functional, cultural, and motivational information to inform how the student learns best.	☐	☐	☐	☐	☐	☐

Comments:

HLP 5: Interpret and Communicate Assessment Information With Stakeholders to Collaboratively Design and Implement Educational Programs

	Rate the extent to which you incorporate this HLP.	N/A	1	2	3	4	5
1	I gather, organize, and share student assessment data with families and relevant educators while providing sufficient time for review before the individualized education program (IEP) meeting.	☐	☐	☐	☐	☐	☐
2	I identify and summarize key findings from multiple data sources as they relate to student strengths and needs.	☐	☐	☐	☐	☐	☐
3	I use students' culture and language to inform how I interpret their assessment results.	☐	☐	☐	☐	☐	☐
4	I compare each student's assessment results to their same-age peers to identify areas of need.	☐	☐	☐	☐	☐	☐
5	I use students' assessment data to determine needed accommodations and modifications.	☐	☐	☐	☐	☐	☐

		N/A	1	2	3	4	5
6	I present student data in an understandable format so that families and educators can use the data to guide programmatic decisions.	☐	☐	☐	☐	☐	☐
7	I encourage discussion and problem solving among families and team members to ensure that a student's IEP is high quality.	☐	☐	☐	☐	☐	☐
8	I collaborate with team members to monitor student progress and make IEP adjustments accordingly.	☐	☐	☐	☐	☐	☐
	Comments:						

HLP 6: Use Student Assessment Data, Analyze Instructional Practices, and Make Necessary Adjustments That Improve Student Outcomes.

	Rate the extent to which you incorporate this HLP	N/A	1	2	3	4	5
1	I use a variety of assessment results to establish students' present level of performance.	☐	☐	☐	☐	☐	☐
2	I set ambitious, realistically attainable, long-term goals (e.g., specific, measurable, attainable, relevant, and time-based goals) for my students' achievement.	☐	☐	☐	☐	☐	☐
3	I create goals for my students that are that are observable, measurable, positively stated, understandable, and always applicable.	☐	☐	☐	☐	☐	☐
4	I can choose appropriate interventions to meet my students' long-term goals.	☐	☐	☐	☐	☐	☐
5	I consistently implement high-quality, evidence-based instruction to meet my students' goals.	☐	☐	☐	☐	☐	☐
6	I consistently monitor my students' progress toward their long-term goals to determine effectiveness of instruction.	☐	☐	☐	☐	☐	☐
7	I use progress monitoring data to determine if changes in instructional practices, interventions, and/or services are needed.	☐	☐	☐	☐	☐	☐
8	I use graphs or data tables so that the level of student progress can be clearly communicated to key stakeholders and team members.	☐	☐	☐	☐	☐	☐
9	I am patient, systematic, and persistent in looking for what will work for my students.	☐	☐	☐	☐	☐	☐
	Comments:						

Social/Emotional/Behavioral Domain						
HLP 7: Establish a Consistent, Organized, and Respectful Learning Environment						
Rate the extent to which you incorporate this HLP.	N/A	1	2	3	4	5
1	I discuss and provide the rationale for classroom expectations, rules, and procedures with students using terms that are observable, measurable, positively stated, understandable, and always applicable.	☐	☐	☐	☐	☐	☐
2	I make sure that classroom expectations, rules, and procedures reflect the cultures, values, and beliefs of students and families from various ethnic, cultural, and linguistic backgrounds represented in the school.	☐	☐	☐	☐	☐	☐
3	I explicitly teach, reteach, and model three to five positively stated expectations (e.g., be respectful, be responsible, and be safe).	☐	☐	☐	☐	☐	☐
4	I incorporate student input in class expectations.	☐	☐	☐	☐	☐	☐
5	I understand that behavior is a form of communication, and I take this under consideration when I interpret and respond to a student's behavior in the classroom.	☐	☐	☐	☐	☐	☐
6	I limit the amount of unstructured time.	☐	☐	☐	☐	☐	☐
7	I post expectations, rules, and procedures in highly visible areas of the classroom.	☐	☐	☐	☐	☐	☐
8	I lay out the classroom and other high-traffic areas in a way that will meet the needs of the students.	☐	☐	☐	☐	☐	☐

Comments:

HLP 8: Provide Positive and Constructive Feedback to Guide Students' Behavior						
Rate the extent to which you incorporate this HLP.	N/A	1	2	3	4	5
1	I provide positive and specific feedback on student behavior.	☐	☐	☐	☐	☐	☐
2	When I give feedback, I focus on the process rather than making it about the person (e.g., Say "You worked really hard on that assignment" instead of "You are so smart!").	☐	☐	☐	☐	☐	☐
3	I provide instructive feedback in which I emphasize the social or behavioral skill I want my students to learn.	☐	☐	☐	☐	☐	☐
4	I provide corrective feedback when addressing my students' social/behavioral errors instead of reprimanding them (e.g., say "Remember, we are reading quietly to ourselves" instead of "Stop talking!").	☐	☐	☐	☐	☐	☐
5	I provide timely feedback close to when the behavior occurs.	☐	☐	☐	☐	☐	☐

		N/A	1	2	3	4	5
6	I am sincere when I provide feedback to students and avoid using sarcasm and joking.	☐	☐	☐	☐	☐	☐
7	I consider how students' age, learning history, cultural background, and preferences, as well as classroom dynamics, could influence their response to feedback.	☐	☐	☐	☐	☐	☐
8	I adjust the type and frequency of feedback based on students' learning progress.	☐	☐	☐	☐	☐	☐
	Comments:						

HLP 9: Teach Social Behaviors

	Rate the extent to which you incorporate this HLP.	N/A	1	2	3	4	5
1	I systematically identify students with social skills deficits through a variety of data sources (e.g., disciplinary referrals, classroom data, family input).	☐	☐	☐	☐	☐	☐
2	I proactively identify students with social skills deficits through a variety of data sources (e.g., disciplinary referrals, classroom data, family input).	☐	☐	☐	☐	☐	☐
3	I provide targeted instruction in social skills for students.	☐	☐	☐	☐	☐	☐
4	I consider the setting and circumstances of when a specific social skill is needed and develop examples, nonexamples, and role-playing scenarios to support students in generalizing the skill.	☐	☐	☐	☐	☐	☐
5	I take into consideration students' culture, age, and natural environment when instructing and developing social skills.	☐	☐	☐	☐	☐	☐
6	I organize and sequence examples by prioritizing instruction around the context where the social skill deficit would most likely lead to negative outcomes.	☐	☐	☐	☐	☐	☐
7	I develop engaging and well-paced lessons in social skill instruction that mirror the core components of academic lesson plans (e.g., teach, model, practice).	☐	☐	☐	☐	☐	☐
8	I encourage student mastery of social skills by providing immediate, consistent, specific, positive, and corrective feedback.	☐	☐	☐	☐	☐	☐
9	I scaffold supports that are gradually faded to increase students' independent use of social skills.	☐	☐	☐	☐	☐	☐
10	I encourage generalization of social skills by providing students with the opportunity to practice the skills in a variety of settings.	☐	☐	☐	☐	☐	☐
	Comments:						

HLP 10: Conduct Functional Behavioral Assessments (FBA) to Develop Individual Student Behavior Support Plans						
Rate the extent to which you incorporate this HLP.	N/A	1	2	3	4	5
1	I consider how social attention and communication may have contributed to the student engaging in a behavior.	☐	☐	☐	☐	☐	☐
2	I consider how student behavior may be caused by trying to avoid, delay, or reduce the amount of time that students need to do an undesired activity.	☐	☐	☐	☐	☐	☐
3	I consider how a student's wish to avoid another student may influence student behavior.	☐	☐	☐	☐	☐	☐
4	I make sure that the FBA has a clear description of the target behavior.	☐	☐	☐	☐	☐	☐
5	I identify the events, times, and situations that predict the behavior in the FBA.	☐	☐	☐	☐	☐	☐
6	I identify the consequences that maintain the target behavior in the FBA.	☐	☐	☐	☐	☐	☐
7	Using data, I develop a hypothesis regarding the events that prompt and support the target behavior in the FBA.	☐	☐	☐	☐	☐	☐
8	I apply the antecedent-behavior-consequence (A-B-C) model when developing the FBA hypothesis statement. For example, when someone coughs (A), a student might pinch them (B), leading them to get attention (C).	☐	☐	☐	☐	☐	☐
9	I analyze data collected through the FBA to select an appropriate replacement behavior based on the function of the target behavior.	☐	☐	☐	☐	☐	☐
10	I use the data to develop a behavior support plan.	☐	☐	☐	☐	☐	☐
11	I explicitly teach and reinforce the selected replacement behavior to the student.	☐	☐	☐	☐	☐	☐
12	I modify the environment with a student's behavior support plan to avoid problem behavior reoccurrence.	☐	☐	☐	☐	☐	☐
13	I collect data and monitor student progress and adjust the behavior intervention accordingly.	☐	☐	☐	☐	☐	☐
Comments:						

Instruction Domain

HLP 11: Identify and Prioritize Long- and Short-Term Goals

	Rate the extent to which you incorporate this HLP.	N/A	1	2	3	4	5
1	I connect students' learning goals to the essential knowledge and skills depicted within standards and curricula.	☐	☐	☐	☐	☐	☐
2	I use student data to identify students' strengths and needs that guide long- and short-term goal development.	☐	☐	☐	☐	☐	☐
3	I use formative assessments (e.g., classroom assessments, opportunities to respond) to guide instruction and determine student progress toward individualized education program goals and objectives.	☐	☐	☐	☐	☐	☐
4	I use summative assessments (e.g., unit tests) to obtain data on students' progress.	☐	☐	☐	☐	☐	☐
5	I develop ambitious, attainable, and socially significant goals to ensure that students can access and be successful in an inclusive setting.	☐	☐	☐	☐	☐	☐
6	I collaborate with families to learn about their instructional priorities for the students and use this information to guide goal development.	☐	☐	☐	☐	☐	☐
7	I recognize the big ideas that students need to learn from the standards and make sure to teach these ideas first.	☐	☐	☐	☐	☐	☐
8	I am familiar with the grade-level standards I teach and can determine what students need to know and do to meet the standards.	☐	☐	☐	☐	☐	☐
9	I can identify what prerequisite skills the student must have to successfully meet a standard.	☐	☐	☐	☐	☐	☐

Comments:

HLP 12: Systematically Design Instruction Toward Learning Goals

	Rate the extent to which you incorporate this HLP.	N/A	1	2	3	4	5
1	I can translate students' long- and short-term goals into individual learning activities.	☐	☐	☐	☐	☐	☐
2	I create lessons where student outcomes are clear, measurable, ambitious, attainable, and actionable.	☐	☐	☐	☐	☐	☐
3	I am clear about where and how targeted skills and knowledge will be measured within a given lesson or setting.	☐	☐	☐	☐	☐	☐
4	I develop goals that clearly define what students will do to demonstrate their learning.	☐	☐	☐	☐	☐	☐

5	I have clear criteria to determine the extent to which students are achieving the goal.	☐	☐	☐	☐	☐	☐
6	The goals and objectives I create for students are observable.	☐	☐	☐	☐	☐	☐
7	The goals and objectives I develop are clear and measurable.	☐	☐	☐	☐	☐	☐
8	I state students' goals and objectives in a positive manner.	☐	☐	☐	☐	☐	☐
9	The goals I set for students are linked as much as possible to the general education curriculum.	☐	☐	☐	☐	☐	☐
10	I ensure that there is a clear need of the goals and objectives set for each student.	☐	☐	☐	☐	☐	☐
11	I ensure that the goals and objectives set are ambitious but mediated by students' individual needs.	☐	☐	☐	☐	☐	☐

Comments:

HLP 13: Make Adaptations to Tasks and Materials

	Rate the extent to which you incorporate this HLP.	N/A	1	2	3	4	5
1	I intentionally plan for differentiation in my instruction to meet individual student needs.	☐	☐	☐	☐	☐	☐
2	I examine the directions of a task or activity to identify advanced vocabulary, sentence complexity, and/or length and simplify these directions as needed.	☐	☐	☐	☐	☐	☐
3	I use visual aids to illustrate each step of the directions for a task or activity.	☐	☐	☐	☐	☐	☐
4	I use technology to facilitate students' understanding of tasks and concepts.	☐	☐	☐	☐	☐	☐
5	I use multiple adaptations (e.g., breaking down an activity or a routine into smaller steps) to increase the likelihood of student success.	☐	☐	☐	☐	☐	☐
6	I adapt materials by reducing the amount of content presented or required for completing a task.	☐	☐	☐	☐	☐	☐
7	I differentiate my students' tasks and materials by starting with easier content and building toward more challenging content.	☐	☐	☐	☐	☐	☐
8	I highlight important information from texts, notes, and/or worksheets to make important ideas more visible for my students.	☐	☐	☐	☐	☐	☐
9	I support student learning by using guided notes to help with retention and improve student note-taking skills.	☐	☐	☐	☐	☐	☐
10	I create and/or use graphic organizers to help students understand relationships and organize concepts.	☐	☐	☐	☐	☐	☐

| 11 | I provide and explicitly teach students to use mnemonic strategies to remember important aspects of lessons and content. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 12 | I use physical objects (e.g., manipulatives) to support students in doing an activity or task. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |

Comments:

HLP 14: Use Cognitive and Metacognitive Strategies

	Rate the extent to which you incorporate this HLP.	N/A	1	2	3	4	5
1	I provide cognitive strategy instruction to reinforce student independence and self-direction. This includes activating background knowledge; discussing, modeling, memorizing, and supporting the strategy; and allowing for independent performance (i.e., self-regulated strategy development model).	☐	☐	☐	☐	☐	☐
2	I examine sources of evidence-based practices to determine whether they will meet my students' needs.	☐	☐	☐	☐	☐	☐
3	I use task analysis to determine the steps that students will need to take to accomplish goal.	☐	☐	☐	☐	☐	☐
4	I clearly model and facilitate student practice to show students how to use self-regulation procedures (e.g., goal setting, self-monitoring) when participating in tasks and activities.	☐	☐	☐	☐	☐	☐
5	I explicitly teach and use strategic instruction models (e.g., self-regulated strategy development) to enhance student memory and information recall.	☐	☐	☐	☐	☐	☐
6	I break down, model, and provide step-by-step instruction to facilitate student strategy use.	☐	☐	☐	☐	☐	☐
7	I provide frequent opportunities for students to practice strategy use across various settings and time.	☐	☐	☐	☐	☐	☐
8	I monitor student strategy use and ensure that any modification a student makes does not impact the strategy's usefulness.	☐	☐	☐	☐	☐	☐
9	I provide feedback and positive reinforcement to my students as they use the targeted strategy.	☐	☐	☐	☐	☐	☐

Comments:

HLP 15: Provide Scaffolded Supports

	Rate the extent to which you incorporate this HLP.	N/A	1	2	3	4	5
1	I create tasks with a focus on essential knowledge and skills.	☐	☐	☐	☐	☐	☐
2	I provide scaffolded supports (e.g., graphic organizers, sentence stems) across a wide range of areas (e.g., academics, behavior, social skills).	☐	☐	☐	☐	☐	☐
3	I use assessments to gauge student thinking, language, writing, or performance to determine the type and level of supports needed.	☐	☐	☐	☐	☐	☐
4	I use my knowledge of standards/benchmarks, curriculum, and prerequisites to structure tasks from easiest to most difficult.	☐	☐	☐	☐	☐	☐
5	I adjust student support to learn a strategy as needed.	☐	☐	☐	☐	☐	☐
6	I make sure to provide only the amount of scaffolded support the student needs to perform a skill or task independently.	☐	☐	☐	☐	☐	☐
7	I fade supports gradually to encourage student independence with concepts and tasks.	☐	☐	☐	☐	☐	☐
8	I use a variety of supports (e.g., technology, checklists, graphic organizers) and adjust what is used based on students' support needs.	☐	☐	☐	☐	☐	☐

Comments:

HLP 16: Use Explicit Instruction

	Rate the extent to which you incorporate this HLP.	N/A	1	2	3	4	5
1	I design carefully sequenced and organized lessons that focus on the most important content.	☐	☐	☐	☐	☐	☐
2	I start lessons with a clear statement of the lesson goals and student expectations.	☐	☐	☐	☐	☐	☐
3	I review prerequisite skills and knowledge before providing instruction on new content.	☐	☐	☐	☐	☐	☐
4	I break down complex skills and strategies into smaller instructional pieces.	☐	☐	☐	☐	☐	☐
5	I provide clear and concise step-by-step demonstrations of how to do a skill or explain a concept.	☐	☐	☐	☐	☐	☐
6	When applicable, I incorporate a variety of examples and nonexamples into my lessons.	☐	☐	☐	☐	☐	☐
7	I provide guided practice with scaffolded supports.	☐	☐	☐	☐	☐	☐

| 8 | I provide my students with frequent opportunities to respond to questions. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 9 | I provide immediate affirmative and corrective feedback based on student performance. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |

Comments:

HLP 17: Use Flexible Grouping

	Rate the extent to which you incorporate this HLP.	N/A	1	2	3	4	5
1	I vary group size (e.g., whole or small group) based on students' instructional needs and learning objectives.	☐	☐	☐	☐	☐	☐
2	I vary the type of group (e.g., same ability or mixed ability) based on students' instructional needs and learning objectives.	☐	☐	☐	☐	☐	☐
3	I use same-ability groups when providing intensive instruction for students who have similar strengths, needs, and/or interests to meet short-term goals and objectives.	☐	☐	☐	☐	☐	☐
4	I use mixed-ability groups to increase engagement in academic discussions.	☐	☐	☐	☐	☐	☐
5	I use mixed-ability groups to improve interpersonal relationships between students with and without disabilities across racial/ethnic backgrounds.	☐	☐	☐	☐	☐	☐
6	I use cooperative learning structures (e.g., jigsaw) to meet academic, behavioral, and/or interpersonal instructional objectives.	☐	☐	☐	☐	☐	☐
7	I monitor the interactions between group members and their learning during group work time.	☐	☐	☐	☐	☐	☐
8	I hold students accountable for what they do during group work to promote positive interdependence.	☐	☐	☐	☐	☐	☐

Comments:

HLP 18: Use Strategies to Promote Active Student Engagement

	Rate the extent to which you incorporate this HLP.	N/A	1	2	3	4	5
1	I build and maintain positive relationships with my students.	☐	☐	☐	☐	☐	☐
2	I individualize engagement tools using technology, visuals, or other structured supports for students.	☐	☐	☐	☐	☐	☐

		N/A	1	2	3	4	5
3	I use a wide range of research-supported active student response practices (e.g., peer tutoring, digital tools, collaborative learning strategies).	☐	☐	☐	☐	☐	☐
4	I provide students with opportunities to respond (e.g., asking questions) throughout my lessons.	☐	☐	☐	☐	☐	☐
5	I encourage students to participate in group activities by including games and contingencies.	☐	☐	☐	☐	☐	☐
6	I give detailed academic- and behavior-specific feedback with explanation of how students are meeting expectations.	☐	☐	☐	☐	☐	☐

Comments:

HLP 19: Use Assistive and Instructional Technologies

	Rate the extent to which you incorporate this HLP.	N/A	1	2	3	4	5
1	I consider my students' assistive technology needs related to their goals, access to the general education curriculum, and extracurricular activities.	☐	☐	☐	☐	☐	☐
2	I make assistive technology decisions based on students' strengths and needs.	☐	☐	☐	☐	☐	☐
3	I make assistive technology decisions based on the environment in which my students learn and socialize.	☐	☐	☐	☐	☐	☐
4	I consider the supports available in the environments where my students learn and socialize.	☐	☐	☐	☐	☐	☐
5	I consider the tasks that students are expected to do when making assistive technology decisions.	☐	☐	☐	☐	☐	☐
6	I directly integrate assistive technology into my students' individualized education program goals, as applicable.	☐	☐	☐	☐	☐	☐
7	I collect and analyze data about students' use of assistive technology across instructional settings.	☐	☐	☐	☐	☐	☐
8	I determine if changes to assistive technology devices or services are needed based on student data.	☐	☐	☐	☐	☐	☐

Comments:

HLP 20: Provide Intensive Instruction

	Rate the extent to which you incorporate this HLP.	N/A	1	2	3	4	5
1	I use progress monitoring to track student improvements.	☐	☐	☐	☐	☐	☐
2	I create student-specific intensive intervention plans based on an examination of diagnostic assessment data.	☐	☐	☐	☐	☐	☐

		N/A	1	2	3	4	5
3	I can implement intervention plans, track student responses, and reexamine data as needed.	☐	☐	☐	☐	☐	☐
4	I establish my students' present level of academic performance.	☐	☐	☐	☐	☐	☐
5	I set ambitious long-term goals using established norms.	☐	☐	☐	☐	☐	☐
6	I implement high-quality instruction or intervention with fidelity.	☐	☐	☐	☐	☐	☐
7	I monitor student progress toward the goal.	☐	☐	☐	☐	☐	☐
8	I use decision rules to evaluate instructional effectiveness and student progress.	☐	☐	☐	☐	☐	☐
9	I generate a hypothesis about student progress to individualize instruction.	☐	☐	☐	☐	☐	☐
10	I make instructional changes based on my chosen hypothesis.	☐	☐	☐	☐	☐	☐

Comments:

HLP 21: Teach Students to Maintain and Generalize New Learning Across Time and Settings

	Rate the extent to which you incorporate this HLP.	N/A	1	2	3	4	5
1	I apply the same techniques that changed a behavior in one setting to all settings where the target behavior is desirable.	☐	☐	☐	☐	☐	☐
2	I help students recognize reinforcement options in the natural environment (e.g., a preferred snack).	☐	☐	☐	☐	☐	☐
3	I use examples from a variety of settings and contexts to demonstrate a behavior or skill.	☐	☐	☐	☐	☐	☐
4	I use reinforcement contingencies where students do not know when the reinforcement will happen (i.e., unpredictable).	☐	☐	☐	☐	☐	☐
5	I use similar stimuli in the training setting and the setting where generalization is desired.	☐	☐	☐	☐	☐	☐
6	I provide students training in self-management, in which they monitor and report on their own generalization of behavior.	☐	☐	☐	☐	☐	☐
7	I use verbal instructions to promote generalization.	☐	☐	☐	☐	☐	☐
8	I use reinforcement schedules to ensure that desirable behaviors persist across settings.	☐	☐	☐	☐	☐	☐
9	I reduce the frequency of reinforcement as students demonstrate increased success with a behavior/skill.	☐	☐	☐	☐	☐	☐
10	I build in opportunities for overlearning trials (i.e., extra instruction to reinforce learning).	☐	☐	☐	☐	☐	☐

11	I build in opportunities for distributed practice (i.e., breaking up practice into several short sessions during a longer period of time).	☐	☐	☐	☐	☐	☐
12	I review methods to increase generalization (i.e., use in multiple settings or activities) of the skill or behavior as needed.	☐	☐	☐	☐	☐	☐
13	I review methods to increase and maintenance (i.e., continue to be able to perform across time) of the skill or behavior as needed.	☐	☐	☐	☐	☐	☐

Comments:

HLP 22: Provide Positive and Constructive Feedback to Guide Students' Learning

	Rate the extent to which you incorporate this HLP.	N/A	1	2	3	4	5
1	I provide positive and specific feedback on student learning.	☐	☐	☐	☐	☐	☐
2	When I give feedback, I focus on the process rather than making it about the person (e.g., Say "You worked really hard on that assignment" instead of "You are so smart!").	☐	☐	☐	☐	☐	☐
3	I provide instructive feedback in which I emphasize the academic skill I want my students to learn.	☐	☐	☐	☐	☐	☐
4	I provide corrective feedback when addressing my students' academic errors instead of reprimanding them (e.g., say "Remember, read the directions carefully" instead of "Pay attention!").	☐	☐	☐	☐	☐	☐
5	I provide timely feedback close to when the behavior occurs.	☐	☐	☐	☐	☐	☐
6	I am sincere when I provide feedback to students and avoid using sarcasm and joking.	☐	☐	☐	☐	☐	☐
7	I consider how students' age, learning history, cultural background, and preferences, as well as classroom dynamics, could influence their response to feedback.	☐	☐	☐	☐	☐	☐
8	I adjust the type and frequency of feedback based on students' learning progress.	☐	☐	☐	☐	☐	☐

Comments:

Clear the Form

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- MEd, Curriculum and Instruction
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