# High-Leverage Practices

# for Students with Disabilities

## Revised and Updated



Council for Exceptional Children | CEEDAR CENTER

# High-Leverage Practices

# Practices

# for Students

# with Disabilities

## Second Edition

# TABLE OF CONTENTS

# Preface

## The Early Origins

The first emails inviting participants to join the writing team for what would become known as the *High-Leverage Practices (HLP) for Special Education*, convened by the Council for Exceptional Children (CEC), its Professional Standards and Practice Committee (PSPC), the Teacher Education Division (TED) of CEC, the Council of Chief State School Officers (CCSSO), and the Collaboration for Effective Educator Development Accountability and Reform (CEEDAR) Center housed at the University of Florida (UF), arrived in October of 2014. A few months later, in January 2015, the invited researchers, teacher educators, technical assistance providers, policymakers, and administrators gathered at the old CEC headquarters in Crystal City, Virginia. Outside, it was a seasonal, blustery day. Inside, team leaders Dr. James McLeskey from CEEDAR/UF, and Dr. Mary-Dean Barringer from CCSSO weaved a soaring vision of how the concept of HLPs for all educators might transform our field by identifying and bringing focused attention on key practices that could improve student outcomes if successfully implemented. Little did the field know the winds of change were out in full force.

The original concept of HLPs came from teacher education researchers working collaboratively to improve the quality and impact of educator preparation. This included Dr.

Deborah Ball (University of Michigan), Dr. Pam Grossman (Stanford University) and Dr. Mark Windschitl (University of Washington). Windschitl and colleagues (2012) defined HLPs as "a set of practices that are fundamental to support K-12 student learning, and that can be taught, learned, and implemented by those entering the profession" (p. 880). The focus was to equip educators with specific practices they could use in the classroom by building their knowledge and skill in applied domains (Grossman et al., 2009). The original HLPs from this group can be found at https://www.teachingworks.org/high-leverage-practices/.

Drs. McLeskey and Barringer recognized the power and potential of the original HLP construct, but also knew the practices as written did not fully reflect the needs of all educators and students – especially those students with disabilities. The writing team for the HLPs for Special Education was charged to preserve the core definition of HLPs as laid out by our colleagues from general education, but broaden and capture the complex and unique work of educators who support students with disabilities. It is critical to understand the value of HLPs as written by both sets of colleagues, as the authors' motivations, values, and lenses through which teaching is conceptualized, evaluated, and taught to newcomers greatly depends upon one's positionality in the field. Understanding of the author's intent and positionality gives you, the reader, necessary information for prioritizing which HLPs are most

needed to support students in your role.

Across 2015 the team met, debated, wrote, received input, revised, and finalized what we recognize as the current HLPs in Special Education (McLeskey et al., 2017). Some of the HLPs doubled as known evidence-based practices in our field (e.g., use explicit instruction), but maintained Windschitl's vision that the practices were intended to be foundational and underwrite teachers' repertoires and bolster capacity to implement a range of practices and skills (Brownell et al., 2021). For example, the principles of explicit instruction are used within several evidence-based reading and mathematics programs. A guiding principle was for team members to think about the complex work of special educators and the individualized needs of students. The result was some overlap in practices between the Teaching Works HLP list, but largely a new set of practices were identified.

Few present that January morning, now approaching ten years past, fully recognized or appreciated the lasting impact of ideas first discussed that day. How does one predict that an idea as (deceptively) simple as HLPs could so thoroughly come to infiltrate and change practice at every level of a field as complex as ours? Yet, as we reflect on what will soon be a decade with HLPs in our professional lives, one could argue the field has experienced a paradigm shift with respect to how we think about teaching, and the key elements needed for success. Change of this sort is not common, or predictable, and so speaks to the need of the field to simplify the incredibly complex work of teaching and learning – especially for novices at first exposure. Professors Ball, Grossman, Windschitl, and their colleagues were correct to move the field in a direction away from theory and curriculum first, and towards a more applied focus on implementation of key practices. In other words, HLPs provided the intellectual and tangible mechanism through which educators at all levels could put into words and action the specific practices needed for daily success when teaching students.

Dissemination of the HLPs for Special Education (now renamed to HLPs for Students with Disabilities) was aided by visionary efforts by the Office of Special Education Programs within the U.S. Department of Education (OSEP). A key mechanism for OSEP's leadership in this space was continued funding of CEEDAR, through which flowed funds that supported work by a range of other organizations (e.g., CEC, CCSSO, AACTE, the team authoring this document, etc.). CEEDAR's charge is to partner with and disseminate evidence-based practices and HLPs to state education agencies, teacher preparation programs, other education agencies around the nation, as appropriate. Therefore, CEEDAR's efforts in developing professional development, coursework, networks, field experiences, and other related tools (such as evaluation and coaching mechanisms) paved a roadmap for how the HLPs could be interpreted and implemented across a range of settings. In parallel and often direct collaboration, CEC developed a range of products related to HLP dissemination. The HLP website (www.highleveragepractices.org) with its embedded resources is one example. Professional conferences, such as the CEC Convention and TED annual conference, began seeing massive numbers of sessions proposed and delivered related to HLPs. In sum, work related to dissemination by these intertwined agencies offered a coherent mechanism for generally siloed professionals across our field to learn about HLPs.

For more information on the early origins and development of the *High-Leverage Practices for Students with Disabilities*, we encourage the reader to refer to the original 2017 publication.

# Acknowledgements

The members of the writing team for the current edition of the *High-Leverage Practices for Students with Disabilities* would like to express a profound appreciation to our current and early visionaries, collaborators, authors, experts, and overall true partners in this field to support all educational professionals in the trenches who do the hard and often thankless work every day to support their students and families.

## Collaborators

- Mary Brownell, University of Florida
- Mary-Dean David, U.S. Dept. of Education, Office of Special Education Programs
- Annie Drinkard, Council for Exceptional Children
- David Guardino, U.S. Dept. of Education, Office of Special Education Programs
- Meg Kamman, University of Florida/CEEDAR Center
- Melinda Leko, University of Florida/CEEDAR Center
- Erica McCray, University of Florida/CEEDAR Center
- James McLeskey, University of Florida
- Chad Rummel, Executive Director, Council for Exceptional Children
- Laurie VanderPloeg, Council for Exceptional Children
- Larry Wexler, U.S. Dept. of Education, Office of Special Education Programs

## Original Writing Team

- James McLeskey (Chair), University of Florida
- Mary-Dean Barringer, Council of Chief State School Officers
- Bonnie Billingsley, Virginia Polytechnic Institute and State University
- Mary Brownell, University of Florida
- Dia Jackson, American Institutes for Research
- Michael J. Kennedy, University of Virginia
- Tim Lewis, University of Missouri
- Larry Maheady, SUNY Buffalo State
- Jackie Rodriguez, The College of William & Mary
- Mary Catherine Scheeler, The Pennsylvania State University
- Judy Winn, University of Wisconsin-Milwaukee
- Deborah Ziegler, Council for Exceptional Children

# Background Basics & HLPs 2.0

Michael J. Kennedy, **University of Virginia**
Terese C. Aceves, **Loyola Marymount University**

According to the National Center for Education Statistics' 2021-22 annual report (NCE https://nces.ed.gov/surveys/annualreports), 7.3 million students receive special education services in American public schools (15% of all students). The number of students requiring special education services is on the rise, as "only" 6.4 million students (13%) received services during the 2010-11 school year. Over 50% of these students are from minoritized racial groups (NCES). This is an enormous number of students entitled to an Individualized Education Program (IEP), corresponding services, and everything else that is required by law (e.g., annual meetings, eligibility testing, paperwork, etc.). In addition, the intersecting identities of students from a range of cultural, ethnic, and other backgrounds introduces essential variables for educators and schools to carefully consider and nurture when delivering services (Franco et al., 2023).

Of the 7.3 million students with disabilities, over 60% will spend more than 80% of each school day in the general education classroom. Many of these students have complex needs, such as autism spectrum disorders. For example, students with autism were only 1.5% of students with IEPs in 2000-01 (~96,000 students), compared to 12.2% of students with IEPs in 2021-22 (~890,600

students), (https://nces.ed.gov/FastFacts/display.asp?id=64). Therefore, general education teachers share joint responsibility with special educators for implementing the IEPs and addressing the instructional, behavioral, and cultural needs of millions of children each year. This responsibility has caused substantial difficulties for all educators, especially those without appropriate training and support.

## Multiplying Issues Impacting Achievement and Outcomes for Students with Disabilities

**Performance of students.** At the start of the 2023-2024 school year, 44% of all public school students were functioning behind grade level in at least one subject area (Bielamowicz & Iaconelli, 2023). Another report noted large learning losses for students following the pandemic; however, observed losses were not equally distributed across communities in the nation (Fahle et al., 2023). The largest losses were observed in rural and urban areas where achievement was behind to begin with.

Despite learning loss during the pandemic, there has never been a time where students with disabilities on average performed as well as peers without disabilities on important measures of

learning.  For example, students with disabilities' performance on the National Assessment of Educational Progress (NAEP) has significantly lagged behind peers' scores at every grade level and subject tested each year since the assessment was founded in 1969 and researchers began looking specifically at the performance of this population as a subgroup of interest (https://nces.ed.gov/pubsearch/getpubcats.asp?sid=031).  While a hallmark of students with disabilities is their academic struggles, these students as a group are capable of important gains and outcomes.  Therefore, educator quality is an essential factor that should not be ignored as it relates to the poor performance of students over the years.  Significant gaps in achievement are compounded by the lack of access to appropriately trained educators providing quality instruction to meet students' increasing needs (Griffin et al., 2024).

**Staffing issues.**  Poor academic performance of students with disabilities is exacerbated by the shortage of qualified educators.  Historically, there has been a shortage of qualified special education teachers in American public schools (Billingsley & Bettini, 2019).  To illustrate, according to a recent NCES data report, 40% of public schools found it very difficult to fill vacant special education positions or failed to do so at all (Fahle et al., 2023).  However, it is not only special education where qualified professionals are hard to come by.  In an examination of existing national reports and datasets, Nguyen and colleagues (2022) (conservatively) estimated there are 36,500 classroom vacancies nationally, and 163,650 additional teaching positions held by underprepared and uncertified educators.  These vacancies disproportionately occur in under-resourced schools in rural and urban areas (Fahle et al., 2023).  General education teachers receive limited instruction and preparation for supporting the complex and unique needs of students with disabilities (Gilmour & Wehby, 2020).  Therefore, if we have an increasing number of students with substantial needs within inclusive placements, coupled with thousands of classrooms going without a qualified educator, what can we as a field

expect except further negative or stagnant outcomes on various measures of interest?

**Instructional quality woes.**  Regardless of certification status, instruction provided to students with and without disabilities in many locations is of questionable quality and effectiveness.  To illustrate, Rainey and colleagues (2023) conducted a survey of educators and administrators across the country.  During the 2022-2023 school year, school leaders reported noticing that educators are falling back "… on outdated and ineffective instructional practices or other curricula lacking grade level content and rigor" (Rainey et al., 2023, p. 4).  Feldon (2007) noted when educators are cognitively overwhelmed, they revert to instructional practices that come easier to them, but those practices tend to lack sophistication or effectiveness that is supported by research evidence.  An important component of evidence-based education is instructional practices shown to improve outcomes for specific populations of learners by multiple, high-quality experimental studies (Cook et al., 2020).  We often refer to these as evidence-based practices or EBPs.  Various educational organizations (e.g., WWC, CEC) have developed standards for identifying the amount of evidence from rigorous and methodologically sound studies needed for an educational practice to be labeled as an EBP.

New and novice educators are always at risk of being cognitively overloaded when teaching since nearly everything they are doing is new and being attempted for the first time (Kennedy & Romig, 2021).  To prevent cognitive overload, schools have attempted to narrow and centralize the practices educators need to implement on a daily basis (Rainey et al., 2023). However, doing so has come at the expense of training educators in evidence-based practices and specialized supports needed for students with disabilities and other complex needs (Rainey et al., 2023).  These data provide compelling evidence that a course correction is needed in our field in order to support our most vulnerable students.

**Lack of culturally informed pedagogy and practice.** Unfortunately, a combination of unqualified educators filling thousands of positions, poor instruction occurring regardless of qualifications, and limited (if any) implementation of **c**ulturally **i**nclusive **p**edagagies and **p**ractices (CIPPs) have conspired to negatively influence learning and behavioral outcomes for students with disabilities. For example, many attempts to implement CIPPs are "distortions and corruptions" of the original ideas from scholars' original intent(s) (Ladson-Billings, 2014, p. 82) and awash in "good intentions" (Evans et al., 2020, p. 55) but ultimately miss the mark. A big issue with respect to the lack of CIPPs is educators are not aware of or trained to implement them as part of their implementation of evidence-based and high-leverage practices (Hollie, 2012). As noted above, many educators are not well trained in the basics of teaching, so the chances of being aware of how to support students with intersecting cultural identities and learning needs is low (Evans et al., 2020). In sum, as these challenges make evident, we find ourselves at a crossroads with multiple converging issues to address. A major thrust of this refreshed *HLP for Students with Disabilities* text is how CIPPs not merely intersect with HLPs, but should be foundational considerations in planning and delivery of all instruction (Gay, 2014). We dedicate an entire chapter of this introduction to the setup of this critical issue.

**Summary.** None of these issues of student achievement, educator quality, staffing, and use of CIPPs are easily addressed as individual or tandem issues (McCray & Waitoller, 2024). Improvement is needed, and we as a field have tools and talent for making positive headway. The high-leverage practices for students with disabilities are a logical place to explore options for addressing these converging issues.

# Enter the High-Leverage Practices for Students with Disabilities

The term "high-leverage practice" and its corresponding definition emerged in general education more than ten years ago (Ball & Forzani, 2011; Grossman et al., 2009; McDonald et al., 2013). A deceptively simple concept, HLPs have become pervasive in American education and spawned substantial professional development efforts (Windschitl et al., 2019), updates to teacher preparation programs (Billingsley et al., 2019; Maheady et al., 2019), and various literature reviews and statistical analyses (e.g., Nelson et al., 2022). The idea that there is a relatively small set of key practices all educators should know and have in their toolbelt is not only logical, but it connected immediately with overwhelmed teacher educators, professional development providers, and educators all struggling to learn and implement a seemingly endless list of evidence-based and other practices (McLeskey et al., 2019). It was further logical the field of special education would want to spin off its own set of key practices from the original set developed for general education. However, the intention was not for these practices to be used solely for special educators' "students." Instead, the HLPs for students with disabilities are practices for all educators given the data cited earlier that students with disabilities are present in just about every general educator's classroom. Therefore, general educators are also responsible for supporting ALL students' learning and behavioral needs.

The high-leverage practices for special education were first introduced in 2017 by team leads Drs. James McLeskey and Mary-Dean Barringer and their colleagues. In their introduction to the original version of this text, McLeskey and team wrote, "…these practices must represent the essence of effective practice in special education" (p. 9). This echoed others who called for HLPs to be identified as those which could reasonably be taught and learned during preparation programs

(Ball et al., 2009; McDonald et al., 2013; Windschitl et al., 2012) and therefore be the foundation of practice-based teacher education (Leko et al., 2015). Organized by four domains (Collaboration, Assessment, Social/Emotional/ Behavioral, and Instruction), the HLPs for special education immediately resonated with the field, and resulted in creation of numerous products including the HLP website http://highleveragepractices.org, video series https://vimeo.com/showcase/9336362, leadership guides https://highleveragepractices. org/hlp-leadership-guides, books (McLeskey et al., 2023; McLeskey et al., 2019; Pennington et al., 2022), and other resources for professional learning (https://ceedar.education.ufl.edu/high-leverage-practices/; https://exceptionalchildren.org/learninglibrary).

# HLPs Revised and Updated

For this refresh of the original *HLPs for Special Education*, they have been renamed **HLPs for Students with Disabilities.** This change is meant to signal that since students with disabilities are present in just about every instructional setting within public schools, these practices are for all educators. In addition, the HLPs for students with disabilities are not only effective for students with IEPs, evidence shows they are effective for all students (Nelson et al., 2022). As part of the refresh process, we reconsidered the original four domains, and how the practices should be sorted and emphasized within. For example, the *Collaboration* domain title remained the same, but we identified **HLP 1**: Collaborate with Professionals to Increase Student Success and **HLP 3**: Collaborate with Families to Support Student Learning and Secure Needed Services as **Pillar Practices** within these domains. Pillar practices are the most essential HLPs for educators to master and implement – the Most Valuable Practices (MVPs) of the HLPs. **HLP 2**: Organize and Facilitate Effective Meetings with Professionals and Families is now called an **Embedded Practice** as it is core to the implementation of Pillar Practices 1 and 3 (as one cannot effectively collaborate with colleagues or families if they cannot run effective meetings). This does not mean

HLP 2 has been eliminated, but instead, we are signaling to the field a premium should be placed on the MVPs/pillars.

The original *Assessment* domain is now *Data-Driven Planning*. The Pillar Practice for this domain is **HLP 6:** Use Student Assessment Data, Analyze Instructional Practices, and Make Necessary Adjustments that Improve Student Outcomes. The embedded practices are **HLP 4:** Use Multiple Sources of Information to Develop a Comprehensive Understanding of a Student's Strengths and Needs; **HLP 5**: Interpret and Communicate Assessment Information to Collaboratively Design and Implement Educational Programs; **HLP 11**: Identify and Prioritize Long- and Short-Term Learning Goals; and **HLP 12**: Systematically Design Instruction Toward a Specific Learning Goal. In this domain the key is for educators to make data-driven decisions. To do so requires use of multiple data sources and the capacity to interpret those data for collaborators, and then strategically deploy data to create an individualized instructional plan that includes goals and designs around specially-designed instruction. Within this refresh text we are deliberate and aggressive regarding the overlap amongst HLPs from the various domains. For example, implementation of pillar practice HLP 6 cannot occur without the collaboration practices, and has no meaning without being utilized when designing and delivering instruction as indicated within domains 3 and 4. We elaborate below.

The previous *Social/Emotional/Behavioral* domain has been eliminated, and its practices distributed into the new *Instruction in Behavior and Academics* and *Intensify and Intervene as Needed* domains. The pillar practices for *Instruction in Behavior and Academics* are **HLP 7**: Establish a Consistent, Organized, and Responsive Learning Environment, and **HLP 16**: Use Explicit Instruction. The embedded practices are split into two categories: *What to Teach*, and *How to Teach*. The three embedded practices for what to teach are: **HLP 9**: Teach Social Behaviors; **HLP 14**: Teach Cognitive and Metacognitive Strategies to Support Learning and Independence; and **HLP 21**: Teach

Students to Maintain and Generalize New Learning Across Time and Settings. For each of these HLPs, explicit instruction is used to successfully teach students with disabilities, and an organized and responsive classroom is needed for success.

The embedded practices for the how to teach category are: **HLP 8** & **22**: Provide Positive and Constructive Feedback to Guide Students' Learning (HLP 22) and Behavior (HLP 8); **HLP 13**: Adapt Curriculum Tasks and Materials for Specific Learning Goals; **HLP 15**: Provide Scaffolded Supports; **HLP 17**: Use Flexible Grouping; **HLP 18**: Use Strategies to Promote Active Student Engagement; **HLP 19**: and Use Assistive and Instructional Technologies. Each of these HLPs support implementation of explicit instruction, help lead to creation and maintenance of a responsive classroom environment, and are core to implementation of many other evidence-based practices. The most effective use of the practices in this domain come on the heels of professionals collaborating with one another and family members, collecting and using data to make decisions, and then making an instructional plan to address specific goals.

The final domain is *Intensify and Intervene as Needed*. The pillar practice for this domain is **HLP 20**: Provide Intensive Instruction for Academics and Behavior. The embedded practice is **HLP 10**: Conduct Functional Behavioral Assessments to Develop Individual Student Behavior Support Plans. In addition, the embedded practices from the other three domains are needed to implement these two practices. For example, conducting an FBA and writing a corresponding behavioral improvement plan (BIP) requires educators to collaborate, collect and use data, and try various instructional and behavioral techniques and tools. It is through this final point where a key element of the rationale for this refresh arose.

## Why Refresh?

If you are reading this text near its first publication date of spring 2024, HLPs are about to conclude their first decade of impact on the field.

This is suitable longevity to evaluate the "state of HLPs" as they have become a shared language in teacher preparation programs, state education agencies, school division offices, schools, homes, and within federal agencies such as the USDOE and subsidiaries like OSEP. There are still pockets of professionals around the country without knowledge of the HLPs, but there are many thousands more that do – work remains in this space.

As colleagues around the country have gotten to know the HLPs and incorporate them into their daily practice, questions have arisen. Some key questions include: Did the HLP authoring team pick the "right" 22 practices? What is missing? Are some practices more important than others? If you have limited time and resources, which practices should you select to focus on? The COVID-19 pandemic helped accelerate many of these questions as the field was largely turned on its head and enormous numbers of new educators were ushered into the field with little or no formal preparation. This document is the beginning of a response to these questions.

Ten years of opportunity to learn, implement, collaborate, and critique is a solid first benchmark for the HLPs for ALL Educators and Students. For example, perhaps the most common criticism of the HLPs as originally written is there is limited outward focus on the needs of educators, families, and students from diverse cultural, ethnic, and linguistic backgrounds. Culturally inclusive practices as embedded within the existing HLPs can be spotted, but only by those already informed enough to know quality guidance and deliberate focus is outwardly missing from the text as written. Experts therefore take matters into their own hands to identify and invent connections. Novices, however, have no specific guidance and are essentially left to understand culturally inclusive practices have no specific place or role within the HLPs. In other words, the original HLP authoring team did not go far enough to visibly and meaningfully infuse essential knowledge, competencies, and skills related to culturally inclusive practices as their own class of practices,

or as intersecting competencies with others.

Throughout this HLP refresh process, our team worked to be explicit and specific to deliver our understanding of how culturally inclusive pedagogies and practices interface with the HLPs. In reality, this update warrants its own text – and several colleagues, including those recruited to support efforts here – have such texts and resources in the works. Our aim here is to provide the initial grounding and thinking for how professionals across our field can think about HLPs and the infusion of culturally inclusive practices and pedagogies. A fuller description of how these practices are defined is included in the next section of this introduction.

As a second criticism, many who have studied or implemented the HLPs with school-based leaders and educators have concluded it is very difficult, if not impossible to teach 22 practices to any professional – let alone someone new. This does not mean there are not 22 key practices (in reality there are many more practices that could have been included), but rather, important choices for prioritization should be made. To illustrate, many state and school officials have asked the question, "if you had to pick, which 3-4 practices should you focus on?" The work of the HLP refresh committee who have authored this text have heard this question in our own work, and our collective response is laid out in the forthcoming pages. In summary, the work of the HLP refresh team was not to eliminate any existing HLPs, but instead reorient professionals and those in training to the most essential practices on the list, and demonstrate how the remaining HLPs function to support implementation.

Another rationale for this HLP refresh document is the confusion over who these practices are for. We noted earlier the history of our colleagues from general education authoring the original HLPs now featured on the *Teaching Works* website, and how leaders from CEC and CEEDAR responded by generating their own list. It isn't a big leap for the casual consumer to infer the Teaching Works HLPs are "for general education" and the CEC/CEEDAR HLPs are "for special education." However, this is not accurate. While the respective practices were written by professionals with their respective lenses and positionality that can be traced back to general or special education, we aim in this text to break down this artificial and unhelpful barrier.

We aim in this text to outline how the HLPs written by colleagues from CEC/CEEDAR are indeed HLPs for ALL Educators and Students. First, few educators have classes that do not serve students with disabilities, multilingual learners, or others who may be at-risk of disability. Therefore, the preparation of educators whether in a formal preservice program, or within an inservice professional development induction offering need to be ready to implement practices that can support all students. In addition, the practices contained within the CEC/CEEDAR HLPs have evidence to support their use with all educators, families, and students.

Finally, the original HLPs were written to apply to just about any K-12 setting. This was a wise decision in some ways to ensure a wide array of professionals would feel comfortable in learning about and adopting the practices. On the other hand, the lack of explanation for how the HLPs might look for students at primary, middle, and secondary levels/content areas led to confusion and frustration for some. In this refresh, we provide explanations and examples of how the HLPs might be applicable for younger and older students. Similarly, the research bases for certain HLPs was called into question (Nelson et al., 2022). While this refreshed text is not intended to be a thorough report of research, authors do provide key citations and evidence-based resources for each HLP. Forthcoming texts go further in clarifying and expanding the evidence base for Pillar and Embedded HLPs.

## Connecting the HLPs for Students with Disabilities to Prevailing Issues of the Day

We opened this introduction with a series of sobering statistics regarding outcomes for students with disabilities, and frightening numbers of educator vacancies across communities. We also noted the questionable quality of many educators' practice, and largely absent use of culturally informed pedagogies and practices embedded within whatever teaching practices they are currently using. There are no quick fixes or easy answers to these omnipresent issues in our field. However, by focusing on a small number of key Pillar Practices and learning how culturally informed pedagogies and practices can and should be utilized on behalf of students with disabilities in all settings, teacher educators, professional development providers, and educators on the ground can rethink their current pedagogies and approach.
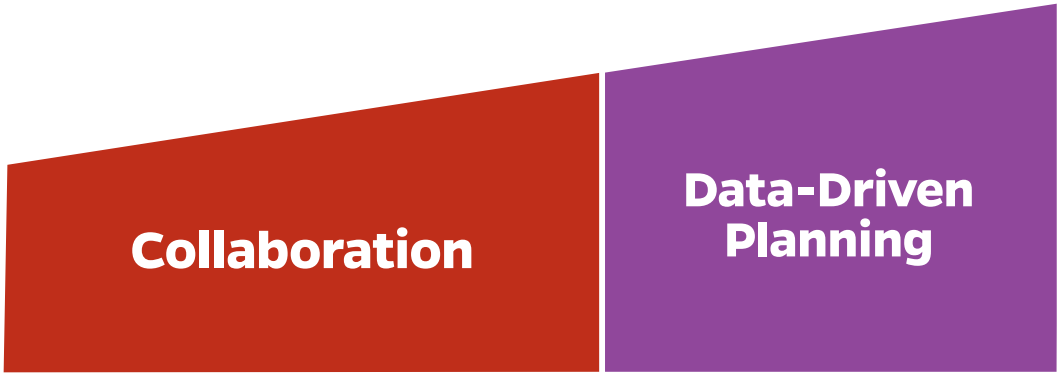
## Collaboration

## Data-Driven Planning

## HLP Pillars

### HLP 1

Collaborate with professionals to increase student success.

### HLP 3

Collaborate with families to support student learning and secure needed services.

### HLP 6

Use student assessment data, analyze instructional practices, and make necessary adjustments that improve student outcomes.

**Embedded HLPs**

**HLP 2:** Organize and facilitate effective meetings with professionals and families.

**HLP 4:** Use multiple sources of information to develop a comprehensive understanding of a student's strengths and needs.

**HLP 5:** Interpret and communicate assessment information to collaboratively design and implement educational programs.

**HLP 11:** Identify and prioritize long and short-term learning goals.

**HLP 12:** Systematically design instruction toward a specific learning goal.

# Instruction in Behavior and Academics

# Intensify and Intervene as Needed

## HLP Pillars

### HLP 7

Establish a consistent, organized, and responsive learning environment.

### HLP 16

Use explicit instruction.

### HLP 20

Provide intensive instruction for academics and behavior.

## What to teach

**HLP 9:** Teach social behaviors.

**HLP 14:** Teach cognitive and metacognitive strategies to support learning and independence.

**HLP 21:** Teach students to maintain and generalize new learning across time and settings.

## How to teach

**HLP 13:** Adapt curriculum tasks and materials for specific learning goals.

**HLP 15:** Provide scaffolded supports.

**HLP 17:** Use flexible grouping.

**HLP 18:** Use strategies to promote active student engagement.

**HLP 19:** Use assistive and instructional technologies.

**HLP 8/22:** Provide positive and constructive feedback to guide students' learning (HLP 22) and behavior (HLP 8).

HLP 10: Conduct functional behavioral assessments to develop individual student behavior support plans.

## Embedded HLPs

# About this publication

Each chapter includes a brief description of pillar and embedded HLPs, provides elementary and secondary examples of practice, research updates, and relevant resources for more information. Across domains the authors intentionally identify ways the HLPs support students from diverse cultural and linguistic communities.  And finally, to emphasize the HLP's symbiotic relationship, we provide a concluding section to each domain "Putting it All Together" where we identify how the domain connects with other domains and particular HLPs.

## Contributing Authors

| | |
|---|---|
| **Team Leads/Editors** | |
| Terese C. Aceves | Loyola Marymount University |
| Michael J. Kennedy | University of Virginia |
| **Background Basics & High Leverage Practices 2.0** | |
| Michael J. Kennedy | University of Virginia |
| Terese C. Aceves | Loyola Marymount University |
| **Culturally Inclusive Pedagoies and Practices, Intersectionality, and High Leverage Practices** | |
| Jonte' Taylor | Pennsylvania State University |
| Elizabeth A. Harkins Monaco | William Paterson University |
| **All Domain Authors** | |
| Jonte' Taylor | Pennsylvania State University |
| Elizabeth A. Harkins Monaco | William Paterson University |

## Domain Specific Authors

| | | |
|---|---|---|
| Terese C. Aceves | Loyola Marymount University | Collaboration |
| Kat D. Alves | Longwood University | Instruction in Behavior and Academics |
| Bonnie Billingsley | Virginia Tech | Collaboration (Lead) |
| Allison Bruhn | University of Iowa | Intensify and Intervene as Needed |
| Kyena Cornelius | University of Florida | Data-driven Planning (Lead) |
| Jamie Day | University of Missouri | Instruction in Behavior and Academics |
| Melissa K. Driver | Kennesaw State University | Data-driven Planning |
| Joseph Fisher | Grand Valley State University | Instruction in Behavior and Academics |
| Grace Francis | George Mason University | Collaboration |
| Lindsey Hayes | American Institutes for Research | Intensify and Intervene as Needed (Lead) |
| Shanna Hirsch | Clemson University | Intensify and Intervene as Needed |
| Lynn Holdheide | American Institutes for Research | Instruction in Behavior and Academics |
| Aleksandra Hollingshead | University of Idaho | Instruction in Behavior and Academics |
| Meg Kamman | University of Florida/ CEEDAR Center | Data-driven Planning |
| Michael J. Kennedy | University of Virginia | Instruction in Behavior and Academics |
| Paula Lancaster | Central Michigan University | Instruction in Behavior and Academics (Lead) |
| Timothy J. Lewis | University of Missouri | Instruction in Behavior and Academics & Intensify and Intervene as Needed |
| Suzanne McClain | University of Virginia | Instruction in Behavior and Academics |
| Erica D. McCray | University of Florida/ CEEDAR Center | Data-driven Planning |
| Kathleen Randolph | Texas State University | Intensify and Intervene as Needed |
| Wendy J. Rodgers | Virginia Commonwealth University | Instruction in Behavior and Academics |
| Dena Slanda | American Institutes for Research | Instruction in Behavior and Academics |
| Brittany Sterrett | American Institutes for Research | Instruction in Behavior and Academics |
| Laurie VanderPloeg | Council for Exceptional Children | Collaboration |
| Jocelyn Washburn | University of Kansas Center for Research on Learning | Collaboration |
| Danielle A. Waterfield | University of Virginia | Instruction in Behavior and Academics |
| Margaret P. Weiss | George Mason University | Collaboration & Instruction in Behavior and Academics |
| Nathan P. Welker | University of Virginia | Instruction in Behavior and Academics |

## Domain Reviewers

| | | |
|---|---|---|
| Kiersten Hensley | Minnesota State University, Mankato | Data-driven Planning |
| William C. Hunter | University of Cincinnati | Instruction in Behavior and Academics |
| Melissa Jenkins | The University of Mary Washington | Data-driven Planning |
| Melinda Leko | University of Florida | All Domains |
| Benjamin S. Riden | James Madison University | Instruction in Behavior and Academics |
| Zachary Rossetti | Boston University | Collaboration |
| Laurie VanderPloeg | Council for Exceptional Children | All Domains |
| Kimberly Vannest | University of Vermont | Intensify and Intervene as Needed |
| Pamela Williamson | University of North Florida | Collaboration |
| Rebecca Zumeta Edmonds | American Institutes for Research | Intensify and Intervene as Needed |

**INTRODUCTION**

# Culturally Inclusive Pedagogies and Practices, Intersectionality, and HLPs

**Jonte' C. Taylor (JT), Penn State University**
**Elizabeth A. Harkins Monaco, William Paterson University**

Since the original development of the HLPs (McLeskey, 2017), cultural and societal changes in education have provided increased opportunities to support students and educators in a fuller way. That is, making more educator/student interactions more supportive while making school and classrooms more inclusive to the diverse needs of students. To better address the needs of students as complex individuals, understanding the multilayered identities, experiences, and cultures of each student should be incorporated into the goal of education alongside the academic, behavioral, social, and emotional needs.

As part of the process in advancing the HLPs to better support special educators who teach students with disabilities, policies and practices that can be considered culturally inclusive are essential. The considerations and actions related to culturally relevant, culturally responsive, and culturally sustaining teachings have garnered considerable attention, both positive and negative, in educational conversations. These conversations have led to

better support for students but have also led to misrepresentation of the terms and what they mean. While it is beyond the scope of this text to dispel all misconceptions around culturally relevant, responsive, and sustaining teachings, we will provide context on their importance and infusion into HLPs. To that end, we briefly describe the progression of theoretical frameworks that focus on cultural sensitivities and provide guidance in infusing those sensitivities into each of the HLPs.

## Culturally Inclusive Pedagogies and Practices

To better provide a way to encompass these concepts of cultural sensitivity, we introduce the term culturally inclusive pedagogies and practices (CIPP). CIPP are those theories and practices that have centered multiple layers of sociocultural diversity and understanding in the educational sphere. That is, considering the wholeness of context, content, and constructs (e.g., people,

resources, environments, etc.) that intersect and interact in the education space and influence life-centered outcomes. CIPP challenges deficit-based understandings of disability, "presumes competence" (Biklen & Burke, 2006), and interrogates intersectional oppressions. It is beyond the time and space of this text to provide a deep dive into all of these themes in an educational context, however, we will briefly focus on three of these previous pedagogies (culturally relevant, culturally responsive, culturally sustaining) and then explore CIPP and its relevance to the HLPs.

## Culturally Relevant Pedagogy and Teaching

Culturally relevant pedagogy (sometimes referred to as culturally relevant teaching) is a "theoretical model that not only addresses student achievement but also helps students to accept and affirm their cultural identity while developing critical perspectives that challenge inequities" (Ladson-Billings, 1995, p. 469). Ladson-Billings (1995) encourages educators to be culturally relevant to support students academically while maintaining their cultural identities. Culturally relevant pedagogy addresses three broad areas for students: (a) academics, (b) cultural identity, and (c) sociopolitical understanding (Mensah, 2021). For educators, being culturally relevant should include personal and professional development to be culturally component internally and externally.

## Culturally Responsive Pedagogy and Teaching

In an expansion of culturally relevant pedagogy (or teaching), Gay (2018) wrote about culturally responsive teaching and the notion that culture influences our attitudes, beliefs, and actions. These influences guide instruction in consideration of students' cultural differences. Gay (2018) posits that for students, culturally responsive teaching "filters curriculum content and teaching strategies through their cultural frames of reference to make the content more personally meaningful and easier to master...because it makes explicit the previously implicit role of culture in teaching and learning"

(p. 32). Mensah (2021) states that culturally responsive pedagogy validates, empowers, transforms, emancipates, and is comprehensive and multidimensional.

## Culturally Sustaining Pedagogy and Teaching

Paris (2012) defines the goal of culturally sustaining pedagogy as "supporting multilingualism and multiculturalism in practice and perspective for students and educators…to perpetuate and foster—to sustain—linguistic, literate, and cultural pluralism as part of the democratic project of schooling" (p. 95). The need to sustain students involves maintaining their own histories, beliefs, and culture and allowing them to share that culture through their education. Alim et al. (2020) asserts that culture is dynamic, and that students' social identities differ from one person to another. The multiple cultures that each student represents should not be relegated to relevant teaching and learning or responded to by educators but should be sustained via expression of culture to demonstrate learning.

## Culturally Inclusive Pedagogies and Practices in Special Education

Special education can exist to sustain and maintain barriers of exclusion, or it can be designed to remove barriers, increase access, and innovate opportunities for inclusion (Wiggan, 2011). Traditional special education practices are decontextualized, meaning they do not account for the ways in which its structure contributes to various layers of oppression simultaneously (Klingner & Edwards, 2006). For example, there continues to be debate around disproportionality of marginalized students with disabilities. That is, even as the disability movement has gained traction, we must acknowledge there has been historic and persistent exclusion of individuals with intersecting identities and perspectives (Schalk, 2022). Schalk (2022) for example, details the experiences of individuals of color who were not always included or visible as part of the Disability Rights Movement.

CIPP challenges us to consider disability within layers of identities that affect students and practitioners (e.g., special educators, paraeducators, therapists, administrators, etc.) across rich diversities. The role of identity in a disabled context is two-fold:

1. It refers to how disability is one of many ways to self-identify. There is a lot of variability in how people relate to, identify with, care for, or attend to their disability. In many communities, disabled people relate to, treat, or address their disability as part of their whole selves and culturally identify with their disabled identities. Some may have similar identities, diagnoses or needs. In other communities, people with disabilities do not identify in these ways. They may better connect across other social identities or not identify culturally at all.

2. It refers to how disability impacts social relationships. The way we, as a society, view and discuss disabled people has a direct impact on the way we treat them, e.g., socially, diagnostically, educationally. Societal perceptions of disability can also impact how people with disabilities connect with themselves, e.g., how they relate to, identify with, care for, or attend to their disability, and how they connect with others, e.g., a white, cisgender girl with ADHD's primary social group is other white, cis girls who do not [necessarily] have ADHD.

When considering cultural inclusiveness, it is critical to acknowledge multilayered identities and how they impact individual experiences in special education. With that in mind, the ideas and concepts around intersectionality can help guide our pedagogy and practice.

### Intersectionality

Reflecting voices such as Patricia Hill Collins, Angela Davis, bell hooks, and Audre Lorde (Crenshaw, 1989), CIPP is rooted in intersectionality. Intersectionality is a framework that interrogates the layered experiences of folx who are more likely to experience simultaneous macro- and micro- "interlocking oppressions," e.g., the convergence of racism, ableism, and classism through policies, practices, and [daily] social interactions (Collins, 1990). Intersectionality is not the same as multiculturalism (Paris, 2012), but they do 'speak the same language' in that CIPP recognizes the value in incorporating rich diversity of students into the classroom, but it also challenges us to consider the layers of oppression that affect students across these diversities, from school policy to the classroom. By considering intersectionality, we can better inform special education interventions (Johnson et al., 2021).

# CIPP & Intersectionality + HLPs In The Field

CIPP and intersectionality should be a natural part of each HLP domain (i.e., Collaboration, Data-Driven Planning, Instruction in Behavior and Academics, and Intensify and Intervene as Needed) and each individual HLP. It is essential to consider the intersectional needs, backgrounds, and experiences of each student, family, and professional that is part of the learning process in an educational system. The following suggestions (in no particular order) are by no means the only ways to consider how CIPP can be infused into special education, rather they can provide an opportunity to reconsider how we interact with, understand, and address our students and their disability-related needs (Smart, 2004):

- **Presume competence in students.** Consider disability as a multidimensional form of self-identity and social belonging. Acknowledge the impact of impairment-related challenges alongside environmental and societal challenges (Linton, 1998).

- **Engage in personal and professional reflection.** Consider ways to be culturally component internally (e.g., for ourselves) and externally (e.g., for students and families; Taylor et al., 2023). Questions to ask include: How is disability framed? How is it leveraged? What is the impact on disabled folx? On nondisabled communities? Across

intersectional experiences? What is the impact on research? Policy? Practice?

- **Prioritize lived experiences.** Center voices (Gonzalez et al., 2017) that have been historically underrepresented to increase ways of knowing, e.g., explore evidence that suggests the "more [disabled] people were invested…the science was strengthened" (Stoep et al., 1999, p. 339). Similarly, include and engage with intersectional communities (e.g., disabled people of color, nonbinary folx with disabilities; Johnson et al., 2021).

- **Consider your language.** Affirm disability similarly to how racial, gender, and sexual identities are affirmed, e.g., use identity-first language (i.e., consider that we do not typically refer to "a person who is male and of Jamaican descent") (Saunders et al., 2024).

- **Analyze through an intersectional lens.** Consider both hidden and observable layers of oppression, discrimination, and the denial of opportunity and advancement (Crenshaw, 1989).

- **Connect with disabled communities.** "Nothing about us without us" (Charlton, 1998). If you can't connect in-person, social media has created many opportunities for disabled people to gather and share their experiences.

Connecting CIPP and intersectionality within the HLP domains and individual HLPs should not be considered an add-on on addendums. These connections should be integral to the pedagogy and practice considerations. The following examples provide context on how to integrate CIPP and intersectionality within the HLP domains.

### CIPP & Intersectionality in "Collaboration"

*Over the past five years, The Jefferson-Hempstead School District (JHSD) has had a significant influx of international students from a variety of countries due to the new auto facility that has opened in the area. To best serve all of the students in the district using CIPP, particularly students with disabilities and their families who are new to the area, JHSD has hired two cultural brokers (Mortier, 2021) at the district level. These cultural brokers provide intersectional collaborative support and serve as liaisons between the school district, schools, and families with knowledge of multiple cultures and languages to ensure each student's intersectional needs, identities, and experiences are considered during the Individualized Education Program (IEP) process.*

### CIPP & Intersectionality in "Data-Driven Planning"

*Mr. Wilson is a secondary special educator that leads the transition program at Carter High School (CSH). In his current role, he teaches life and work skills, arranges work experiences, and assesses their progress and success. Prior to the school year, Mr. Wilson assesses student preferences and needs by interviewing each student and their families regarding culturally inclusive and intersectional needs and preferences. These assessments will consider long- and short-term goals for life and work skills and consider each students' intersectional needs, backgrounds, and experiences. For example, Martine (a disabled student who has transitioned from female to male) and his family have expressed concern regarding his work placement and their acceptance of his identity through the data collection process. As such, Mr. Wilson took extreme care in finding Martine's work placement.*

### CIPP & Intersectionality in "Instruction in Behavior and Academics"

*Potterville Valley School District (PVSD) has decided to make a concerted effort to include more CIPP for their students of color who are receiving special education support across intersectional identities, needs, and experiences. This has included instruction that highlights intersectionality such as Advanced Placement course options for students in African American literature, readings at every grade level that have characters with disabilities and/or from diverse racial/ethnic backgrounds (e.g., Hispanic/Latine), and the use of the cypher (an element of Hip-Hop Based Education) as a means of flexible grouping and establishing a productive*

*classroom environment.*

## CIPP & Intersectionality in "Intensify and Intervene as Needed"

*Mx. Rosenblatt (special education) and Mrs. Michaels (elementary education) are teachers at Lafayette Finch Elementary School. They are responsible for providing the intervention support for Eric, Heidi, and Stanley who are 3rd, 4th, and 5th grade students (respectively) receiving individualized services based on their identified service needs. To best support each student's intersectional identities and needs, Mx. Rosenblatt and Mrs. Michaels meet regularly to provide interventions that are research and evidence-based and consider CIPP and intersectionality. Both educators have jointly read texts that encourage self-reflection within a multi-tiered system of support, CIPP, and intersectionality (e.g., Goforth & Pham, 2023; Hunter et al., 2023). Eric, who receives support in reading and math, is provided with reading examples and math word problems that reflect his Indigenous heritage and background. Heidi, who is receiving behavioral support services that have been exacerbated by traumatic experiences from drug related family realities, is provided opportunities to establish a close educator/student relationship with Mx. Rosenblatt and Mrs. Michaels through the Arts and check in/ check out procedures (CICO; Kladis et al., 2023). Stanley, a Black autistic student, is encouraged to interact with other students who have multiple identities that sometimes overlap with his and is supported through peer-related strategies.*

# Final Thoughts on CIPP & Intersectionality

Thinking, speaking, and acting critically around the topic of disability is complex and can be uncomfortable, but it is important. This is why we are suggesting we create new legacies and connections to HLPs around CIPP. Along with a revision to the HLPs framework, and to better support educators and students, we have integrated CIPP into each HLP section and chapter. These changes will be reflected in the descriptions of the

HLPs and the examples used within the sections and chapters. While in some sections this infusion will be reflected in the language used in other sections this will also include explicit portions detailing CIPP. They will include nods to (a) interventions and practices that reflect CIPP and (b) diverse student descriptions that consider their intersectional needs. To improve the support we give to students; this text offers considerations as to how CIPP can be leveraged within HLPs. Schalk (2022) leaves us with Mary Hooks' words: "May we avenge the suffering of our ancestors, earn the respect of future generations, and be willing to be transformed by the work again and again and again. Let's begin" (p. 22).

## Collaboration

## Data-Driven Planning

## Instruction in Behavior and Academics

## Intensify and Intervene as Needed

## HLP Pillars

### HLP 1
Collaborate with professionals to increase student success.

### HLP 3
Collaborate with families to support student learning and secure needed services.

### HLP 6
Use student assessment data, analyze instructional practices, and make necessary adjustments that improve student outcomes.

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

### HLP 16
Use explicit instruction.

### HLP 20
Provide intensive instruction for academics and behavior.

**HLP 2:** Organize and facilitate effective meetings with professionals and families.

**HLP 4:** Use multiple sources of information to develop a comprehensive understanding of a student's strengths and needs.

**HLP 5:** Interpret and communicate assessment information to collaboratively design and implement educational programs.

**HLP 11:** Identify and prioritize long and short-term learning goals.

**HLP 12:** Systematically design instruction toward a specific learning goal.

### What to teach

**HLP 9:** Teach social behaviors.

**HLP 14:** Teach cognitive and metacognitive strategies to support learning and independence.

**HLP 21:** Teach students to maintain and generalize new learning across time and settings.

### How to teach

**HLP 13:** Adapt curriculum tasks and materials for specific learning goals.

**HLP 15:** Provide scaffolded supports.

**HLP 17:** Use flexible grouping.

**HLP 18:** Use strategies to promote active student engagement.

**HLP 19:** Use assistive and instructional technologies.

**HLP 8/22:** Provide positive and constructive feedback to guide students' learning (HLP 22) and behavior (HLP 8).

**HLP 10: Conduct functional behavioral assessments to develop individual student behavior support plans.**

**Embedded HLPs**

# DOMAIN ONE: COLLABORATION

Bonnie Billingsley, Virginia Tech
Grace Francis, George Mason University
Margaret P. Weiss, George Mason University
Jocelyn Washburn, University of Kansas Center for Research on Learning
Terese C. Aceves, Loyola Marymount University
Laurie VanderPloeg, Council for Exceptional Children

## HLP Pillars

### HLP 1

Collaborate with professionals to increase student success.

### HLP 3

Collaborate with families to support student learning and secure needed services.

**Embedded HLP**

HLP 2: Organize and facilitate effective meetings with professionals and families.

# Domain Overview

*Collaboration* serves as the first domain in the updated *High-Leverage Practices for Students with Disabilities*. Collaboration is an important responsibility among all who serve students with disabilities as it is crucial to providing a coherent program that ensures the success and well-being of each student. The sharing of varied expertise and perspectives among professionals and families is necessary to (1) understanding each student's holistic and intersectional needs, (2) planning and implementing their Individualized Education Programs (IEPs), (3) monitoring student progress and adjusting instruction, (4) assuring each student's well-being in schools, and (5) jointly identifying and implementing culturally inclusive pedagogies and practices (CIPP).

In professional collaboration general educators bring their knowledge of curriculum and instruction; special educators bring an understanding of specially designed instruction and progress monitoring; specialized instructional support personnel offer specialized skills, such as speech therapy, and provide vital support within the classroom. Furthermore, educator-family collaboration promotes a consistent, holistic and intersectional approach to addressing each student's needs, as it encourages trust, communication and sharing across school and home environments to facilitate the transfer of learning between the home and school. Collaboration with families not only enhances the educational experience for each child; it also has the potential to foster families' sense of belonging and empowerment as they participate in shaping their child's program. Thus, collaboration is designed for team members to work toward shared goals--the success and well-being of each student. This not only benefits students with disabilities as effective collaboration promotes learning and effectiveness among all involved in the student's program.

Key activities of collaboration include regular team meetings where professionals discuss student progress, share insights, and adjust teaching methods and strategies as needed. Collaborative planning ensures that instructional methods and strategies are aligned with the goals outlined in the IEP and that everyone involved understands their roles in supporting the student. In-classroom collaboration involves educators and paraeducators working closely to provide appropriate accommodations and differentiation to meet the diverse and unique needs of students. Additionally, ongoing professional development and training opportunities help all team members stay current with best practices and research in the field of special education. Overall, effective professional collaboration allows for a synergy that empowers educators, specialized instructional support personnel, and families to maximize the potential of students with disabilities, enabling them to thrive academically and socially.

To provide an overview, Chapters 3 and 4 focus primarily on two **Pillar Practices** and one **Embedded HLP**. Pillar Practices are the most essential HLPs for educators to initially master and implement while Embedded Practices are necessary to adequately support pillar practices. The two pillar practices include **HLP 1**: Collaborate with Professionals to Increase Student Success, and **HLP 3**: Collaborate with Families to Support Student Learning and Secure Needed Services.

*Culturally inclusive pedagogies and practices* (CIPP) are those theories and practices that have centered multiple layers of sociocultural diversity and understanding in the educational sphere. That is, considering the wholeness of context, content, and constructs (e.g., people, resources, environments, etc.)  that intersect and interact in the education space and influence life-centered outcomes. CIPP challenges deficit-based understandings of disability, "presumes competence" (Biklen & Burke, 2006), and interrogates intersectional oppressions.

These two HLPs are foundational to the work of special and general educators, families and caregivers, specialized instructional support personnel, administrators, and paraeducators as they seek to support the learning of each student with a disability. The embedded practice in this domain is **HLP 2**: Organize and Facilitate Effective Meetings with Professionals and Families. HLP 2 addresses leading "effective meetings with professionals and families" and is embedded in both professional and family collaboration (see *Original HLP Framework* and *Updated HLP Framework,* below). Educators and families engage in varied types of meetings to meet specific collaborative goals (e.g., develop the IEP, address a family concern, use progress monitoring data to assess student learning and adjust instruction), thus HLP 2 supports both professional and family collaboration, by helping team members work together effectively and efficiently as they strive to support each student's learning goals. Each chapter includes a brief description of the HLP, cultural considerations, examples in practice, research support, and resources for further implementation.

In summary, collaboration is an essential part of assuring that students with disabilities have opportunities to learn and progress in schools. Moreover, the importance of collaboration with families of students with disabilities extends beyond the academic realm. It is instrumental in creating a supportive network that helps all families and educators, regardless of background, navigate the complexities of the special education system and helps cultivate a sense of trust and open communication, which is essential for addressing any concerns or challenges that may arise during a student's educational journey. Ultimately, when educators and families work together to support students with disabilities, they create an environment where all students feel a sense of belonging across intersectional identities to reach their full potential and support an inclusive and equitable educational system.

| Original HLP Framework |
|---|
| HLP 1: Collaborate with professionals to increase student success. |
| HLP 2: Organize and facilitate effective meetings with professionals and families. |
| HLP 3: Collaborate with families to support student learning and secure needed services. |

| Updated HLP Framework |
|---|
| Pillar HLP 1: Collaborate with professionals to increase student success.<br><br>    Embedded HLP 2: Organize and facilitate effective meetings with professionals and families. |
| Pillar HLP 3: Collaborate with families to support student learning and secure needed services.<br><br>    Embedded HLP 2: Organize and facilitate effective meetings with professionals and families. |

CHAPTER THREE

# Pillar and Embedded Practices for Collaboration with Professionals

| Pillar HLP 1 | Collaborate with professionals to increase student success. |
| --- | --- |

Collaboration with general educators, paraeducators, and support staff is necessary to support students' learning toward measurable outcomes and to facilitate students' social and emotional well-being across all school environments and instructional settings (e.g., co-taught). Collaboration requires the use of effective collaboration behaviors (e.g., sharing ideas, active listening, questioning, planning, problem solving, negotiating) to develop and adjust instructional or behavioral plans based on student data, and the coordination of expectations, responsibilities, and resources to maximize student learning.

| Embedded HLP 2 | Organize and facilitate effective meetings with professionals and families. |
| --- | --- |

Educators lead and participate in a range of meetings (e.g., meetings with families, individualized education program [IEP] teams, individualized family services plan [IFSP] teams, instructional planning) with the purpose of identifying clear, measurable student outcomes and developing behavioral plans using culturally inclusive pedagogies and practices that support these outcomes. They develop a meeting agenda, allocate time to meet the goals of the agenda, and lead in ways that encourage consensus building through positive verbal and nonverbal communication, encouraging the sharing of multiple perspectives, demonstrating active listening, and soliciting feedback.

# Brief Description

Collaboration is a major responsibility for special educators, general educators, paraeducators, specialized instructional support personnel, and family members as they work together to help students with disabilities learn and thrive in schools. The overall goal of collaboration is to share expertise across all team members to develop the Individualized Education Program (IEP; IDEA, 2004) and to plan, deliver, and adjust instruction to ensure each student's learning and overall well-being. Overall, there is consensus that collaboration is important to better communication, relationships, and "the attainment of goals that would otherwise not be possible" (Griffiths et al., 2021, p. 60). In this chapter, we focus primarily on professional collaboration, as educators work together in systematic ways to address the needs of students with disabilities. We also acknowledge the importance of family-educator collaboration and refer the reader to Chapter 4, which focuses on this topic.

Collaboration involves how professionals work together and make decisions (Friend, 2021), and is facilitated by open communication, mutual respect, and trust among team members (Griffiths et al., 2021). It is important to welcome all participants to collaboration, recognizing participants' strengths and expertise and listening to their varied perspectives. Effective collaboration requires the design and monitoring of instructional programs for students that accounts for their intersectional experiences, needs, and identities. It also requires bridging differences among individuals with varied expertise, preparation, and expectations for collaboration. For example, given the wide range of intersectional experiences, identities, and backgrounds of educators and families, team members need to communicate effectively as they work together, considering others' language preferences, cultural backgrounds, and perspectives to support meaningful dialogue (e.g., Cheatham et al., 2018).

As school-based personnel, educators may assume schools are safe and welcoming environments for families and caregivers; however, family members may experience fear, stress or resentment due to their P-12 experiences. Effective collaboration requires continuous checking of assumptions, biases, and individuals' perspectives. Thus, collaboration is an important and complex activity, and it is not surprising that research on collaboration is constrained by its elusive nature, its innumerable applications, and the number of variables that contribute to its quality (Nelson et al., 2021).

Table 3.1 outlines major types of collaboration including the purpose of each and potential collaborators. Often instructional decision-making occurs in meetings between special and general educators, although families and others may sometimes be involved. Across most configurations of educator teams, the purpose is to examine formal and/or informal assessment data and determine an instructional path forward, using what is known about research and evidence-based practices. In a co-teaching context, the general and special educators may meet following an assessment to analyze student performance. The general educator may contribute expertise in the general curriculum content, with a clear understanding of grade level expectations. The special educator may contribute expertise in learning and error analysis. Together, they examine the results of an assessment to determine the student's level of mastery and determine the next steps in helping the student meet their learning goal (e.g., provide extra practice, reteach material that the student really did not understand). Throughout collaboration, educators must (a) actively listen to one another, (b) build trust in one another, (c) presume student competence, and (d) problem-solve to find specific

**Table 3.1** *Types of Collaboration*

| Type of Collaboration | Purpose of Collaboration | Potential Collaborators |
|---|---|---|
| Eligibility Meeting | To determine a student's eligibility for special education and specialized instructional support | Team of educators, school psychologist, parents, specialized instructional support personnel, administrator(s) |
| IEP Meeting | To develop and monitor a student's IEP | Team of educators, parents, specialized instructional support personnel, administrator(s), student with a disability |
| Instructional decision-making meeting | To use data to select evidence-based, culturally inclusive practices and interventions | Team of educators, specialized instructional support personnel, administrator(s), family member |
| Co-teaching | To co-plan, co-instruct, and co-assess; to deliver specially designed instruction in a co-taught setting | Special and general educator |
| Progress monitoring meeting | To review student performance, examine instructional practices, and determine instructional adjustments | Team of educators, specialized instructional support personnel, administrator(s) |
| Problem-solving meeting | To brainstorm and determine potential solutions to challenges | Team of educators, parents, counselor, specialized instructional support personnel, administrator(s) |
| Communication and coordination meeting | To plan for skill and strategy transfer (e.g., from initial learning of a skill or strategy in small-group instruction to planning for generalization of skill in a content subject) | Grade level or department team of educators including special educators |
| Consultation | To discuss specially designed instruction provided in a general education setting | Special and general education educator |
| Professional development | To develop new knowledge and skills with others | Varied groups of professionals |

# Cultural Considerations

As a regular practice, culturally inclusive educators continuously reflect on their own potential blind spots (e.g., biases, assumptions, cultural perspectives, world view) that may influence their approach to collaboratively planning, teaching, and making data-based decisions with other professionals. This is particularly important when supporting students and families who come from diverse communities, lived experiences, and cultures. For instance, educators' own cultural background, previous experiences, and training may not sufficiently appreciate the unique needs and strengths of students who come to school speaking a language other than English. In such instances, educators should seek out expertise in culturally inclusive pedagogies and practices (CIPP), to create an IEP and learning environment that prioritizes their students' unique needs and intersectionality. To be clear, does the IEP team have sufficient professional expertise when discussing a student's language, behavior, social-emotional functioning, and learning needs? Do collaborative team discussions intentionally compare a student's performance and behavior with other students from a similar cultural and linguistic background? If not, why not and how can this be remedied? Lastly, although further described in the next chapter regarding HLP 3, professionals must learn how to effectively collaborate with families from communities different from their own to ensure their expertise is appropriately considered when interpreting data, planning, and making necessary adjustments to instruction.

# Examples in Practice

### Elementary

*Ms. Hendrix, the fifth grade special education teacher at Emerson Elementary School, began preparing with her grade level colleagues for an upcoming field trip to the city's science museum's space exhibit. To plan this all-day event away from school, Ms. Hendrix met in advance with the behavior support specialist, paraeducator, and three family chaperones. As a team, these educators and*

*support personnel discussed the goals of the field trip so that everyone understood what students would learn from the experience. All members of the team weighed in on specific considerations such as student endurance, behavior challenges, food and medication needs, navigating non-routine spaces, and making CIPP considerations including identifying a docent from the same cultural background/community as students from Emerson Elementary. In the context of collaboration, Ms. Hendrix helped team members understand required accommodations and modifications, relevant IEP goals, or services needed for specific students.*

### Secondary

*Mr. Sullivan, a special educator at Rosa Parks Middle School, is very intentional to collaborate with colleagues across campus given that students on his caseload typically interact with several general educators and service providers throughout the school day. His colleagues are also eager to work with Mr. Sullivan given that the outcome of data-based decision-making meetings, like IEP and problem-solving meetings, tend to influence the ongoing instruction his colleagues provide to students with and without disabilities. Likewise, experiences occurring in each of their classrooms contribute to and require collaborative meetings (e.g., co-teaching planning, consultation) to foster student strategy use and skills transfer (HLP 21). For example, in a mathematics department meeting, Mr. Sullivan, who supports math instruction across 6th through 8th grades, may coordinate and lead a meeting with general educators to communicate how specific students are progressing with math performance, share a snapshot of what intervention instruction includes and how to prioritize their lived experiences in the classroom. Additionally, Mr. Sullivan designs small group math instruction that makes intentional connections between students' language and learning goals with their cultural knowledge and experiences. By sharing this information with Mrs. Henderson, the math general educator, she prompts Mr. Sullivan's students in targeted ways to practice the same skills in her class. Likewise, she shares with Mr. Sullivan how his students are performing in relation to the general education curriculum. Reciprocal*

*sharing leads to a conversation about how specially designed instruction might look in the math class and the sharing of resources that may be used to reinforce specific skills and intersectional considerations during the math intervention class. This two-way communication and coordination require intentionality and time together, allowing for more effective instruction and the reinforcement of Mr. Sullivan's students' skills across settings.*

In the previous examples, special educators are often the primary communicators in the school regarding students with disabilities. They are often in the position to plan meetings and model effective collaborative practices, such as listening attentively to others and encouraging the sharing of varied perspectives and opinions (Lake et al., 2019). Given the wide range of experiences and backgrounds of professionals and families, special educators must also be sensitive to language preferences and perspectives of those from varied cultural backgrounds to encourage input and meaningful dialogue (Cheatham et al., 2018). Collaboration also requires being vigilant about identifying one's own biases or assumptions about others that may interfere with building positive relationships (Rowe & Francis, 2021). Rowe and Francis (2021) suggest being reflective and engaging in self-questioning about the assumptions being made, including asking "am I effectively leveraging my decision-making authority to improve outcomes for my students?" (p. 5). Educators should also question themselves regarding sociocultural assumptions that may occur. In summary, effective collaboration requires more than expertise, it relies on building positive and trusting relationships for productive interactions among all involved with each student.

Professional collaboration also requires well-organized meetings, sometimes involving as many as six or more members (HLP 2). Effective team meetings include careful planning, positive interactions based on trust (Hallam et al., 2015),

and equal and meaningful participation among all attendees (Beck & DeSutter, 2021; Rossetti et al., 2020). Recommendations for effective meetings emphasize the importance of (1) clear meeting goals and agenda, (2) expectations for equal participation, and (3) the use of active listening and dialogue. Instructional planning and decision-making meetings also require the use of progress monitoring data to determine how the student is progressing and to adjust instruction as needed to enhance their learning (e.g., Washburn & Billingsley, 2023). In addition, decisions that are made during meetings often require follow-up activities, which require summarizing these activities, so the next steps are clear to all participants.

## Research Support

Effective professional collaboration benefits educators' effectiveness and student outcomes. Ronfeldt et al. (2015), in a study that included more than 9,000 educator observations and administrative and student data, found that educators participating more frequently and with more satisfaction in team activities, especially those related to assessments, produced relatively higher student achievement than educators with less frequent and less satisfying team interactions. Ronfeldt et al., concluded that a causal relationship exists between collaboration and student outcomes.

Although the research about collaborative outcomes related to students with disabilities is limited, there are some encouraging findings related to co-teaching. In a meta-analysis of 26 studies comparing the academic achievement of students with disabilities in co-taught vs. self-contained classes, King-Sears et al. (2021) suggested that instruction that allows for the combined content and instructional expertise of general and special educators should be more effective for students with as well as those without disabilities. They

HLP 1 Collaboration with Professionals is a Pillar Practice because it is a major responsibility for special educators, general educators, paraeducators, specialized instructional support personnel, and family members as they help students with disabilities to learn and thrive in schools.

found students with disabilities in co-taught classes had higher academic achievement compared to those in self-contained settings. However, they advised that findings should be interpreted with caution given inadequate information about student characteristics across these two types of classrooms and insufficient descriptions of the instructional practices used in these settings. Vembye et al. (2022) also investigated the effects of collaborative teaching and found that collaborative teaching had a positive and significant effect on student achievement when compared to single-taught or special education instruction. They concluded that their review provides "unambiguous evidence for the effectiveness of collaborative models of instruction on student achievement" (p. 34).

Collaboration is also important to educators' professional learning and efficacy. The use of single-day professional development experiences is not effective in facilitating educator learning (De Jong et al., 2022). Instead, professionals who collaborate to make sense of professional learning, to challenge one another in implementation, and then to refine their practice through reflection and deliberate dialogue are more likely to change practice because it is embedded in their daily work context (De Jong et al., 2022). One example of this collaborative learning is lesson study. Originally used in schools in Japan, lesson study is a collaborative process whereby educators work together to develop lessons, implement the lessons, and then reflect on the successes and areas for improvement together (Benedict et al., 2023). In a review of research on lesson study and lesson study-related practices (e.g., co-teaching, professional learning communities), Norwich et al. (2021) found that educators "increased their ability in devising pedagogical solutions to student needs," "assisted them in developing insight," "enabled teaching assistants to have a fully participator role," and "successful bridging between theory and practice"

(p. 323). In another review of research, Benedict and colleagues (2023) found the collaborative approach in lesson study changed educators' learning, including changes to knowledge and motivation. Given a structured, supported, collaborative process, lesson study is one example of how educators learn together within their day-to-day context and change their practice. These effects are not limited to change in practice. In a review of special educator attrition and retention literature, special educators who experienced a shared or collective sense of responsibility with colleagues were more likely to indicate intent to remain in their jobs compared to those who did not experience such support (Billingsley & Bettini, 2019). Lastly, in a systematic synthesis on school leadership, one of four key behaviors of principals that influence student learning is facilitating productive collaboration and professional learning communities (Grissom et al., 2021). Thus, positive and productive collaboration has the potential to improve educator learning and effectiveness, student achievement, and educator retention.

## Conclusion

Although productive collaboration has numerous benefits, it is not easy, as collaboration requires intentional and deliberate planning, practice, and engagement as well as time and schedules. Effective collaboration is built on communication and trust-building which takes time, support, and valuing of intersectional perspectives and expertise. With administrative support and intentional self-reflection, educators and specialized instructional support personnel can learn how to collaborate with others effectively and to build professional networks to deliver services for students that are more powerful than any individual can do alone.

Collaboration is critical to the effectiveness of other HLPs. Often instructional decision-making occurs in interactions between special and general educators (HLP 11, 12, 13, 15). Across most configurations of educator teams, the purpose is to examine data and determine an instructional path forward (HLP 4, 5, 6), using what is known about research and evidence-based practices.

# Resources to Implement Practices

| **Online Resources** |
|---|
| IRIS CENTER. https://iris.peabody.vanderbilt.edu/resources/iris-resource-locator/ (search for collaboration for numerous modules, case study materials, information briefs, videos) |

| **Books** |
|---|
| Causton-Theoharis, J., & MacLeod, K. (2021). *The paraprofessional's handbook for effective support in inclusive classrooms (2nd ed.)*. Paul H. Brookes. |
| Friend, M. (2021). *Interactions: Collaboration skills for school professionals (9th ed.)*. Pearson. |
| *Harkins Monaco, E. A., Fuller, M., & Stansberry Brusnahan, L. L. (2021). Diversity, Autism and Developmental Disabilities: Guidance for the Culturally Responsive Educator. Prism Series, Vol. 13. Council for Exceptional Children.* |
| Jenkins, M. C., & Murawski, W. W. (2023). *Connecting high-leverage practices to student success: Collaboration in inclusive classrooms*. Corwin. |

| **Relevant HLP Text Chapters** |
|---|
| Aceves T. C., & Esparza-Brown, J. (2023). Interpreting and communicating assessment information with stakeholders to collaboratively design and implement educational programs. In J. McLeskey, L. Maheady, B. Billingsley, M. T. Brownell, T. J. Lewis, & S. Alber-Morgan (Eds.), *High leverage practices for intensive interventions* (75-89). Taylor & Francis. |
| Washburn, J. & Billingsley, B. (2023). Organize and facilitate effective meetings with professionals and families. In J. McLeskey, L. Maheady, B. Billingsley, M.T. Brownell, T.J. Lewis, & Alber-Morgan, S. R. (Eds.). *High leverage practices for intensive interventions*. Taylor & Francis. |
| Weiss, M. P., Washburn, J., Friend, M., & Barron, T. (2023). Collaborate with professionals to increase student success. In J. McLeskey, L. Maheady, B. Billingsley, M.T. Brownell, T.J. Lewis, & Alber-Morgan, S. R. (Eds.). *High-leverage practices for intensive interventions*. Taylor & Francis. |

| **Journal Articles** |
|---|
| Barron, T., Friend, M., Dieker, L., & Kohnke, S. (2022). Co-teaching in uncertain times: Using technology to improve student learning and manage today's complex educational landscape. *Journal of Special Education Technology*, 37(3), 439-446. https://doi.org/10.1177/01626434211033579 |
| Beck, S. J., & DeSutter, K. (2020). An examination of group facilitator challenges and problem-solving techniques during IEP team meetings. *Teacher Education and Special Education*, 43(2), 127-143. https:/doi.org/10.1177/088840641983976 |
| Feeney, D. M., Lavín, C. E., Matute-Chavarria, M., Park, H., & Hsiao, Y. J. (2023). Engaging families from culturally and linguistically diverse backgrounds in virtual individualized education program meetings. *Journal of Special Education Technology*, 0(0). https://doi.org/10.1177/01626434231184883 |
| Filderman, M. J., & Gesel, S. A. (2022). Data teams: A collaborative approach to intensifying intervention using student data. *TEACHING Exceptional Children*, https://doi.org/10.1177/00400599221096753 |
| Pearson, J. N., Hamilton, M. B., & Meadan, H. (2018). "We saw our son blossom" A guide for fostering culturally responsive partnerships to support African American autistic children and their families. *Perspectives of the ASHA Special Interest Groups, 3(1)*, 84-97. https://doi.org/10.1044/persp3.SIG1.84 |
| Rabin, C. (2020). Co-teaching: Collaborative and caring educator preparation. *Journal of Educator Eductation*, 71(1), 135-147. https://doi.org/10.1177/0022487119872696 |
| Weiss, M. P., Glaser, H., & Lloyd, J. W. (2022). An exploratory study of an instructional model for co-teaching. *Exceptionality, 30(4)*, 232-245. https://doi.org/10.1080/09362835.2020.1727338 |

**CHAPTER FOUR**

# Pillar and Embedded Practices for Collaboration with Families

| Pillar HLP 3 | Collaborate with families to support student learning and secure needed services. |
|---|---|

Educators collaborate with families, support student learning, and secure needed services. Educators maintain high expectations to collaborate with families in support of individual children's needs, goals, programs, and progress over time and to ensure that families are informed of and understand special education processes and their rights (e.g., evaluation, IEP meetings, procedural safeguards). Educators engage in reflexivity practices to address biases and meaningfully understand and maximize family priorities and relevant familial background information they wish to share such as linguistic practices, family culture, family structure, or familial educational experiences. Educators advocate for resources to help students meet instructional, behavioral, social, and transition goals. Educators effectively communicate with families to co-design home and community learning opportunities, advocate for their children, as well as students to become self-determined advocates in culturally-responsive inclusive ways.

| Embedded HLP 2 | Organize and facilitate effective meetings with professionals and families. |
|---|---|

Educators lead and participate in a range of meetings (e.g., meetings with families, individualized education program [IEP] teams, individualized family services plan [IFSP] teams, instructional planning) with the purpose of identifying clear, measurable student outcomes and developing behavioral plans using culturally inclusive pedagogies and practices that support these outcomes. They develop a meeting agenda, allocate time to meet the goals of the agenda, and lead in ways that encourage consensus building through positive verbal and nonverbal communication, encouraging the sharing of multiple perspectives, demonstrating active listening, and soliciting feedback.

# Brief Description

Educator-family collaboration is characterized by educators and families building off one another's expertise, experience, and ideas to benefit students, families, and educators alike (Turnbull et al., 2022). Educator-family collaboration is mandated through federal general and special education law, both of which apply to students with disabilities. Most notably, the Every Student Succeeds Act (ESSA, 2015) calls for annual parent-educator conferences in elementary schools, and mandates that parents maintain the opportunity to request meetings with educators to support their children's education, and that families collaborate with educators to develop a schoolwide family engagement plan. Further, the Individuals with Disabilities Education Act (IDEA, 2004) mandates that parents are provided the opportunity to be members of their child's Individualized Education Program (IEP) team, serving as equal decision-makers during annual IEP meetings. IDEA also affords families the right to request an initial evaluation for disability determination and special education services, as well as the right to refuse special education services.

These federal requirements provide a baseline for family-educator collaboration, including annual conferences and IEP meetings. These mandates establish the importance of including family expertise and perspectives in decision-making for those responsible for a student's learning and wellbeing. In particular, parental expertise provides IEP teams with a comprehensive understanding of students' needs, strengths, intersectional backgrounds, and preferences to effectively plan and implement instruction and services. Effective special educators, however, expand their collaborative efforts beyond complying with federal requirements. These educators intentionally partner with family units (including immediate, extended family, or chosen family, as appropriate) to assure that educational programs and specialized instructional support actively leverage students' cultural/social capital (e.g., lived experiences) and are effectively designed and implemented to meet the needs of  students with disabilities (Ishimaru, 2017).

Effective educator-family collaboration is built on the dimensions of trust, equity, respect, commitment, advocacy, and communication (Turnbull et al., 2022). Educators who consciously seek to learn from and with families to embody the dimensions of trust, equity, respect, commitment, advocacy, and communication across multiple opportunities and environments are more likely to positively influence student outcomes (Turnbull et al., 2022). Examples of opportunities to meaningfully collaborate with families include activities related to students': (a) academic learning, (b) social-emotional learning, (c) behavior, (d) assessment, and (e) transitions (Ishimaru, 2017; Turnbull et al., 2022). Opportunities for collaboration in academic learning include ensuring access to general education curriculum, providing accommodations and modifications, monitoring academic progress, and guaranteeing meaningful opportunities for learning. Opportunities for collaboration in social-emotional learning include acknowledging students' feelings, enhancing calming strategies and social skills, and developing students' self-esteem and sense of identity and belonging. Opportunities for collaboration in behavior include understanding student behavior, honoring cultural norms and values, supporting adaptive behavior skills, and engaging in meaningful and appropriate behavior shaping and support. Opportunities for collaboration in assessment include disability evaluation and reevaluation and determining student skills, needs, and progress (Aceves & Esparza-Brown, 2023). Opportunities for collaboration in transitions include transitioning into school for the first time, transitioning between grades, and transitioning out of school after graduation.

Finally, it is critical that educators consider ways to communicate and collaborate across all opportunities through formal and informal meetings and communication. Examples of formal or established meetings include student evaluations (as mentioned), annual IEP meetings, family-educator conferences, behavior or transition planning meetings, and school family nights or open houses. Although there is traditionally structure for formal meetings (e.g., meeting agenda, anticipated meeting

outcomes), educators must ensure that family needs are met, including the need for an interpreter, translated documents, and other accessibility (e.g., enlarged print, plain language documents, referral to local resources, explaining the IEP process and family rights). Cultural brokers, or a person with an understanding of multiple cultures who can mediate between groups of people from differing cultural backgrounds, can also help prepare educators for meetings (e.g., provide important information about cultural norms) with families and reduce conflict that may emerge from intersectional differences. In addition to formal meetings, educators and families should engage as much as possible and appropriately in frequent, ongoing communication through multiple means to share information. Examples of ways to engage in informal communication include emails, phone calls, texting apps, school events, home-school journals, and student pick-up and drop-off. Although it may be more challenging to secure certified interpreters for these collaboration opportunities, educators can use other mechanisms such as photos, videos, infographics, and apps to translate simple sentences (although educators should be cautious of mistranslations).

## Cultural Considerations

An important skill when collaborating with families who come from diverse communities, cultures and lived experiences involves the practice of reflexivity. Reflexivity involves individuals critically examining the influence of their thoughts, attitudes, assumptions, habits, and biases (Bolton, 2010). Reflexive educators who practice self-scrutiny are more likely to understand the impact of biases and personal beliefs on their relationships with families, thereby strengthening collaborative relationships and culturally inclusive pedagogies and practices (CIPP). The EASE Process is one strategy that pre-service and practicing educators may use to initiate reflexivity practices (Francis et al., 2023).

**EASE** involves four recursive steps: (a) **e**xamination of microcultures, (b) **a**wareness of response to contexts, (c) **s**elf-scrutiny, and (d) **e**valuation of beliefs and action. For example, in the first step an educator may create an identity map by writing down the microcultures they associate with their profession. Microcultures are personal identity and related characteristics that intersect to inform the ways in which we perceive and understand ourselves and others (Gollnick & Chinn, 2017). Examples of microcultures include one's age, race/ethnicity, gender expression, belief system, geography, disability status, family structure, country of origin, and language. Educators who consider how their own microcultures coalesce or differ from those of their students and their families are better prepared to understand ways in which they can: (a) effectively and respectfully communicate in verbal, written, and nonverbal ways; (b) solicit, understand, and address family practices, concerns, and goals; and (c) employ CIPP. Next, educators may question which microcultures feel the strongest or which additional microcultures emerge when considering the family, including if the microcultures are triggered in a positive or negative way (e.g., feeling a sense of comfort and comradery or feeling a sense of uncertainty or distress). From this point, educators may interrogate the emotions associated with their microcultures. In this step, educators ask themselves "why" and "how" questions, including questions such as "Why do I feel uncomfortable communicating with this parent?" and "Are my feelings and beliefs grounded in assumptions?" Finally, in the last step, educators use this ongoing process of identifying and interrogating their microcultures, assumptions, and biases to take action in challenging their biases. Examples of action steps include identifying a cultural broker or interpreter, if needed, asking families to share their key microcultures, sharing key microcultures with families, seeking information and expertise related to family intersectional backgrounds, journaling, and connecting with a peer or coworker

HLP 3 is a Pillar Practice because families constitute the core of society; families are our students' first and most impactful educators. Learning from and partnering with students' families enhances teaching efficacy.

to debrief on assumptions and biases. In addition, reflexive educators acknowledge what they do not know, what they should know, and what they may need to unlearn through practices such as taking implicit bias surveys (see resources at the end of this chapter), acknowledging systemic barriers, examining differences in cultural expectations for collaboration, and exploring family culture through reputable online resources and community events (e.g., language maps, community cultural celebrations, community spaces, local restaurants; Rossetti et al., 2017).

# Examples in Practice

## Elementary

*Ms. Polka, originally from Chicago, is a new special educator on the island supporting students with disabilities across two elementary school sites. Ms. Polka considers applying the EASE process to introduce herself to colleagues and families across her schools to encourage potential collaboration. To begin this process, Ms. Polka develops a 1-page flier with an introduction highlighting her interests, cultural background, teaching values, hobbies, favorite pastimes, and important family members (all key intersectional microcultures). At the bottom of the flier she inserts a QR code linked to a short video where she reviews the information described in text to provide greater accessibility. She invites her students' families to share their own introductions and information about their child through email or other planned gatherings (e.g., conferences, IEP meetings, back-to-school events) by posing questions such as (a) "What is one important thing that you wish everyone knew about your child?" (b) "What does an ideal school year look like for your child and your family?" (c) "What should I know about your child and your family to help me provide the best possible support in reaching your goals?" and (d) "I know that starting a new year (or school) can be scary. How can I help you feel more confident and comfortable?" Before long, Ms. Polka began receiving emails from parents, eager to share their responses. Having this critical information at the beginning of the year will help Ms. Polka learn how to better connect with families and understand how to support their children.*

## Secondary

*At the secondary level, transition planning activities and meetings serve as an important opportunity for educators to collaborate with families as they work to navigate the transition from secondary school to adult life. Mr. Golden, the transition specialist at Kona High School, takes these planning conversations with families seriously given that they can often be marred by cultural misunderstandings or even conflict fueled by a lack of understanding regarding family values and perspectives. Mr. Golden wants to avoid making assumptions about the wants and wishes of his students and family members. He doesn't want his own values and experiences like going away to college and living independently from family after graduation to dominate or cloud his discussions with students and family members. This can be particularly problematic among western-oriented educators collaborating with families who do not ascribe to typical American values (e.g., individualism versus group welfare, materialism versus spiritualism, independence versus interdependence). Mr. Golden turns to engaging in person-centered planning such as Making Action Plans (MAPS), a student-centered approach, to learn more about his student's and family's history, strengths, dreams, fears, and needs in culturally-responsive ways (Haines et al., 2017). Early in the year, Mr. Golden engages students in role play and simulations in leading their MAPS meeting to further develop self-determination and self-advocacy skills. As a class, students collaborate to develop a script for the simulations, establishing ground rules and being the first person to provide input on key questions. Mr. Golden's role during MAPS meetings is to facilitate, not lead the process by taking notes on large pieces of paper hung on the walls, including documenting action steps and responsible parties. The process is truly collaborative, idea generating, and information sharing. Mr. Golden makes certain to create a safe space for students and family members alike to participate openly and authentically as much as possible.*

Through person-centered planning meetings such as MAPS, educators can demonstrate commitment to students and their families by ensuring that interpreters are present (if needed) and create a relaxed and welcoming environment that reflects student microcultures (including family composition and intersectionalities and presumes competence). Of importance, however, is that educators continue to foster trusting, collaborative relationships with families by demonstrating commitment by following meetings with action steps and incorporating information from person-centered planning meetings into transition plans and future meetings.

## Research Support

There are numerous benefits to educator-family collaboration for students, families, and educators. For instance, students with disabilities experience greater academic and behavioral gains (Strickland-Cohen et al., 2021), as well as enhanced goal attainment, self-determination, and post-school outcomes such as employment (Gross et al., 2021). Further, collaboration during student IEP meetings enhances student, family, and professional outcomes (e.g., reduced conflict, student achievement; Mueller & Vick, 2019).

Despite such documented benefits, barriers to educator-family collaboration may prevent effective collaboration from occurring. For example, educators report limited knowledge on how to collaborate with families (Kyzar et al., 2019). These barriers are especially true among educators who benefit from the dominant narrative in the U.S. (e.g., ideologies and beliefs that favor one social group over another) seeking to collaborate with families who do not and are marginalized by society (Lavín et al., 2021). Further, despite the importance of collaboration during transition planning in high school, research documents educator-family collaboration decreasing as students enter middle and high school (Hirano et al., 2018). Of critical importance, however, is the damage that low expectations for family involvement, negative perspectives of family "over" and "under" involvement, and a narrow value placed on school-centric forms of family involvement (e.g., attending conferences, helping students finish homework, returning signed documents, volunteering at school; Francis et al., 2019). Fortunately, research documents that, in spite of these barriers, families are eager to actively advocate for their child and collaborate with educators (Santamaría and Aceves, forthcoming) and there are many strategies that educators can use to enhance their collaboration with families, including reflexivity and person-centered planning practices.

## Conclusion

A diverse body of research suggests the positive effect of building collaborative relationships between educators and families. These effects include not only improvements in educator–family relationships and increases in shared decision making, but also child- and family-level effects. A clear set of practices that define effective partnerships have emerged from research which emphasize creating strong partnerships through trust, equity, respect, commitment, advocacy, and communication. In implementing these dimensions of partnership and centering family expertise in formal (e.g., IEP meetings) and informal spaces (e.g., text messages), it is essential to understand and respect familial culture, including differing communication styles and preferences.

Intentionally infusing family-professional collaboration into professional practices (e.g., assessment, social/emotional/behavioral development, instruction) informs and creates synergy between HLPs.

# Resources to Implement Practices

| Online Resources | |
|---|---|
| Bridging Refugee Youth and Children's Services (BRYCS) | https://brycs.org/about-brycs/ |
| Local chapters of the Arc of the U.S. | https://thearc.org/find-a-chapter/ |
| Center for Parent Information and Resources | https://www.parentcenterhub.org/find-your-center/ |
| National Association for Family, School and Community Engagement | https://nafsce.org |
| National Center for Families Learning | https://www.familieslearning.org |

| Books |
|---|
| Foubert, J. L. (2022). *Reckoning with racism in family-school partnerships.* Teachers College Press.<br><br>This book applies Critical Race Theory to examine racism in school systems and provides readers with the first-hand experiences of Black parents navigating school systems. |
| Sauer, J. S., & Rossetti, Z. (2020). *Affirming disability: Strengths-based portraits of culturally diverse families*. Teachers College Press.<br><br>This book provides in-depth portraits of six immigrant families and their children with disabilities and provides practical strategies readers can use to enhance partnerships with culturally diverse families. |

| Journal Articles |
|---|
| Kim, S., Kim, J., Yan, M. C., & Kang, V. Y. (2022). Korean-American mothers' perceptions of self-determination of primary school children with Autism Spectrum Disorder. *International Journal of Disability, Development and Education, 69(5)*, 1601-1616. https://doi.org/doi:10.1080/1034912X.2020.1821873<br><br>This article explores differences in the concept of Western and East Asian concepts of self-determination. |

# Putting It All Together

Collaboration is at the foundation of a comprehensive program for each student with a disability. Through collaboration, educators, families, specialized instructional support personnel, and paraeducators share their expertise with the goal of developing and providing an inclusive, coherent educational program to address each student's needs. Effective collaboration requires commitment among educators, leaders, and families. Each member of the team needs to understand the purpose of each collaborative meeting, believe their contributions are welcomed and valued, and use meeting time effectively to accomplish stated goals. Collaboration also requires specific logistical support, such as schedules and time necessary for collaboration to occur. In this section we outline examples of how effective collaboration is relevant to the integration and implementation of other high leverage practices across the domains (*Data-Driven Planning, Instruction in Behavior and Academics,* and *Intensify and Intervene as Needed*).

## Data-Driven Planning

Collaboration is an important part of data-driven planning. For example, during IEP meetings, team members (e.g., educators, families, school psychologists, specialized instructional support personnel) share informal and formal assessment results (HLP 4, 5) to develop a comprehensive profile of each student's needs, also referred to as the student's present levels of academic and functional performance (PLAAFP). Collaboration with parents is an important part of assessment as they provide valuable input regarding their child's development and how they see their child's strengths and challenges. As team members collaborate, they also need to consider how intersectional factors may influence a student's learning. Considering the input of families and professionals makes it more likely that a range of factors that may impact a student's performance will be considered. Frequent, ongoing progress monitoring also requires collaboration as team members assess how well the student is progressing toward their specific goals and to determine when adjustments in instruction are needed (HLP 6).

## Instruction in Behavior and Academics

Collaboration among professionals and families is also a key component of providing holistic support for students with problematic behaviors and/or those experiencing poor social and emotional adjustment. By working together, educators, family members, counselors, school psychologists, and other specialists can create a more inclusive and supportive learning environment that supports

the development of prosocial behaviors (HLP 7). In addition, collaboration across educators, paraeducators, and families benefit students as they can work to support the student through the development of positive relationships and the reinforcement of emerging prosocial behaviors across both home and school (HLP 8, 9).
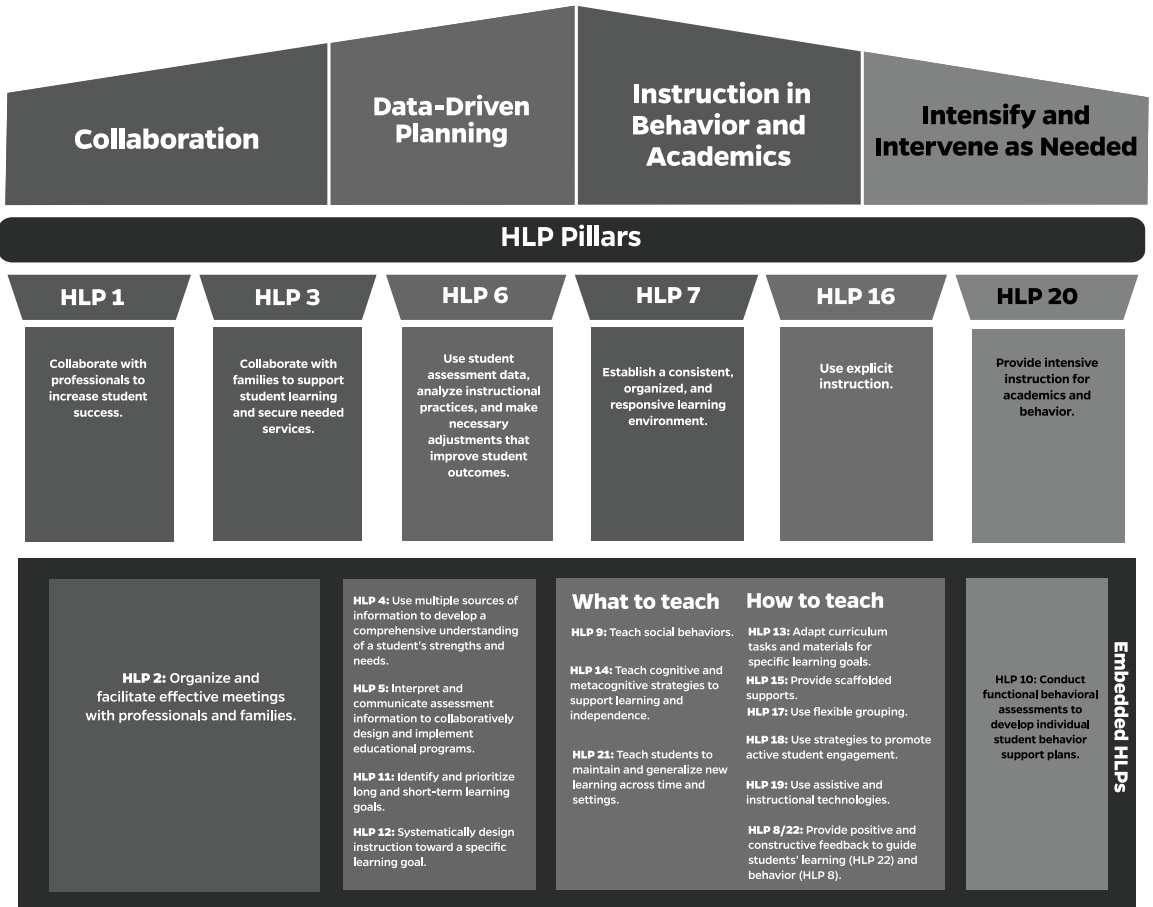
Collaboration also has the potential to better support students with disabilities in inclusive educational environments as they learn the same curriculum as their peers as well as work toward their individual IEP goals. Co-teaching is frequently used to address the needs of students with disabilities and thoughtful collaboration has the potential to improve differentiated and small group instruction, which may include any of the instructional HLPs. For instance, educators collaborate to provide differentiated core instruction, such as using scaffolded supports and flexible grouping (HLP 15, 17), coordinate small group instruction to provide additional instructional support to students who are not meeting goals while using explicit instruction and additional assistive or instructional technologies (HLP 16, 19) as needed. In addition, educators who provide small group instruction need to work intentionally with their colleagues to help students maintain and generalize their learning across settings (HLP 21). In sum, collaboration is needed to successfully integrate specialized instructional support into each student's educational program in a meaningful way to support each student's learning across home and school through regular communication.

### Intensify and Intervene as Needed

Educators working within a multi-tiered system of supports (MTSS) framework rely heavily on collaboration when providing intensive instruction (Reinke et al., 2018). In Tier three, professionals collaborate across multiple programs and environments to provide instruction for students requiring more intensive interventions (HLP 20). As instruction becomes more intensive for students, effective collaboration needs to be deliberate through careful planning and communication to target long and short-term learning goals, adapt

curriculum, and teach metacognitive and cognitive strategies. Additionally, educators and behavior specialists often work together to support students who display problematic behaviors by conducting functional behavioral assessments to develop behavior intervention plans (BIPs; HLP 10).

In summary, deliberate and thoughtful collaboration among educators, families, and specialists should result in improved academic, behavioral, and social outcomes for students with disabilities. By pooling their expertise and resources, schools can develop more effective strategies and interventions for students with disabilities, leading to better educational outcomes.

## Collaboration

## Data-Driven Planning

## Instruction in Behavior and Academics

## Intensify and Intervene as Needed

## HLP Pillars

**HLP 1**

Collaborate with professionals to increase student success.

**HLP 3**

Collaborate with families to support student learning and secure needed services.

**HLP 6**

Use student assessment data, analyze instructional practices, and make necessary adjustments that improve student outcomes.

**HLP 7**

Establish a consistent, organized, and responsive learning environment.

**HLP 16**

Use explicit instruction.

**HLP 20**

Provide intensive instruction for academics and behavior.

**HLP 2:** Organize and facilitate effective meetings with professionals and families.

**HLP 4:** Use multiple sources of information to develop a comprehensive understanding of a student's strengths and needs.

**HLP 5:** Interpret and communicate assessment information to collaboratively design and implement educational programs.

**HLP 11:** Identify and prioritize long and short-term learning goals.

**HLP 12:** Systematically design instruction toward a specific learning goal.

### What to teach

**HLP 9:** Teach social behaviors.

**HLP 14:** Teach cognitive and metacognitive strategies to support learning and independence.

**HLP 21:** Teach students to maintain and generalize new learning across time and settings.

### How to teach

**HLP 13:** Adapt curriculum tasks and materials for specific learning goals.

**HLP 15:** Provide scaffolded supports.

**HLP 17:** Use flexible grouping.

**HLP 18:** Use strategies to promote active student engagement.

**HLP 19:** Use assistive and instructional technologies.

**HLP 8/22:** Provide positive and constructive feedback to guide students' learning (HLP 22) and behavior (HLP 8).

HLP 10: Conduct functional behavioral assessments to develop individual student behavior support plans.

**Embedded HLPs**

48

# DOMAIN TWO: DATA-DRIVEN PLANNING

Kyena E. Cornelius, University of Florida
Margaret L. Kamman, University of Florida
Melissa K. Driver, Kennesaw State University
Erica D. McCray, University of Florida

## HLP Pillar

### HLP 6

Use student assessment data, analyze instructional practices, and make necessary adjustments that improve student outcomes.

**Embedded HLPs**

**HLP 4:** Use multiple sources of information to develop a comprehensive understanding of a student's strengths and needs.

**HLP 5:** Interpret and communicate assessment information to collaboratively design and implement educational programs.

**HLP 11:** Identify and prioritize long and short-term learning goals.

**HLP 12:** Systematically design instruction toward a specific learning goal.

# Domain Overview

Assessment plays a foundational role in instructional and behavioral planning. In this section, our team introduces one **Pillar Practice** and four **Embedded HLPs** that work together and form the newly designed *Data-Driven Planning* domain. Pillar Practices are the most essential HLPs for educators to initially master and implement while Embedded Practices are necessary to adequately support pillar practices. Just as in other sections, this chapter begins with a brief description of each of the practices and also illustrate how these practices are not only congruent with culturally inclusive pedagogies and practices (CIPP), but when implemented consistently honor and respect students, families, and educators. The goal is to highlight what these practices could look like with examples from elementary and secondary classrooms, and conclude with useful resources to support implementation.

When thinking of the purpose of the HLPs and specifically data-driven planning, it is important to remember that all classrooms have diverse students with unique intersectional needs that exist intertwined with their strengths. Effective educators must fully understand strengths and needs in order to deliver meaningful instruction. More specifically, effective educators engage in ongoing *assessment, analysis,* and *action* to plan for culturally inclusive pedagogies and practices (CIPP). This reflective process creates a data-driven planning cycle (see *Cycle of Data-Driven Planning* below). Educators regularly collect and analyze data from formative and summative assessment sources to understand how well their students are understanding and mastering the material. Effective educators then use insights the data provides to adjust instructional methods and materials and, therefore, better provide for students' instructional needs.

Using data to drive instructional planning is important for all educators. However, within today's diverse classrooms effective educators need to be more than knowledgeable with classroom assessment but also be skilled in using and interpreting data from a broad range of assessments. This includes formal, standardized assessments that are used in identifying students for special education services, developing students' IEPs, and informing ongoing services. Formal assessments such as statewide exams also provide data regarding whether students with disabilities are achieving

## Cycle of Data-Driven Planning
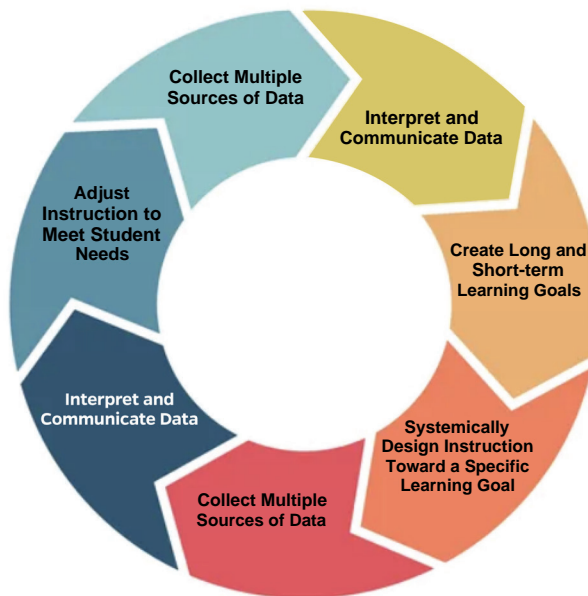
state content standards and how they are making academic progress.

Educators also need to be knowledgeable about and skillful in using informal assessments, such as those used to evaluate students' academic, behavioral, and functional strengths and needs. These assessments are used to develop students' IEPs, design and evaluate instruction, and monitor student progress. As reflective practitioners, educators also continuously analyze the effect and effectiveness of their own instruction.

Just as importantly, effective educators are knowledgeable in how multiple layers of intersectionality (e.g., context, culture, language, and poverty) might influence student performance; navigating conversations with families and other invested partners; and choosing appropriate assessments given each student's profile. This is an especially important consideration, given the misrepresentation in special education (e.g., over- and underrepresentation) of students across intersectionalities (e.g., cultural, language, socioeconomic status).

Although each HLP is identifiable on its own, and each has a clear construct, they are connected and work better together. Just as an oboe or violin can be individually recognized and a trained ear can most definitely distinguish the two; when they work together with other instruments in the orchestra, they create richer, more elaborate music. This is true for the practices in this domain as it is with all the HLPs. Data must be communicated collaboratively with other educators (HLP 1) and families (HLP 3), and regularly in IEP meetings (HLP 2). For effective data-driven planning, educators interpret and use multiple sources of data to create learning goals (HLP 11) and systematically design instruction (HLP 12). They then collect data during instruction to use in meaningful ways (e.g., reflect, monitor and communicate progress, adjust instruction) as needed. Because the cycle starts with collecting and analyzing data, the Pillar HLP that guides this domain is **HLP 6**. In the next two chapters, a brief description of HLP 6 is provided including cultural considerations, examples in practice, research support, and resources to implement this Pillar HLP, followed by similar descriptions of the four embedded HLPs and how they work to support the Pillar. See *Original HLP Framework* and *Updated HLP Framework* below.

| **Original HLP Framework** |
|---|
| HLP 4: Use multiple sources of information to develop a comprehensive understanding of a student's strengths and needs. |
| HLP 5: Interpret and communicate assessment information with stakeholders to collaboratively design and implement educational programs. |
| HLP 6: Use student assessment data, analyze instructional practices and make necessary adjustments that improve student outcomes. |

*Culturally inclusive pedagogies and practices* (CIPP) are those theories and practices that have centered multiple layers of sociocultural diversity and understanding in the educational sphere. That is, considering the wholeness of context, content, and constructs (e.g., people, resources, environments, etc.) that intersect and interact in the education space and influence life-centered outcomes. CIPP challenges deficit-based understandings of disability, "presumes competence" (Biklen & Burke, 2006), and interrogates intersectional oppressions.

| **Updated HLP Framework** |
|---|
| Pillar HLP 6: Use student assessment data, analyze instructional practices and make necessary adjustments that improve student outcomes. |
|     Embedded HLP 4: Use multiple sources of information to develop a comprehensive understanding of a student's strengths and needs. |
|     Embedded HLP 5: Interpret and communicate assessment information to collaboratively design and implement educational programs. |
|     Embedded HLP 11: Identify and prioritize long- and short-term learning goals. |
|     Embedded HLP 12: Systematically design instruction toward a specific learning goal. |

CHAPTER FIVE

# Pillar Practice for Data-Driven Planning

| Pillar HLP 6 | Use student assessment data, analyze instructional practices, and make necessary adjustments that improve student outcomes. |
|---|---|
| Effective educators use all data available to create instructional goals and plans. After instructional goals are developed, educators evaluate and make ongoing adjustments to students' instructional programs. Once instruction and other supports are designed and implemented, successful educators have the skill to manage and engage in ongoing data collection using curriculum-based measures, informal classroom assessments, observations of student academic performance and behavior, self-assessment of classroom instruction, and discussions with key invested partners (i.e., students, families, other professionals).  Educators study their practice to improve student learning, validate reasoned hypotheses about salient instructional features, and enhance instructional decisions. Effective educators retain, reuse, and extend culturally inclusive practices that improve student outcomes and adjust or discard those that do not. | |

# Brief Description

The Individuals with Disabilities Education Act (IDEA) mandates specially designed instruction be implemented to meet individual students' needs and move their learning toward the general education standard and curriculum (34 C.F.R. § 300.39 [a] [3] [ii]). This starts with collaboratively using data to identify and prioritize culturally and contextually appropriate long-and short-term goals and systematically designing instruction to move students' learning toward their specific goals. Effective educators use diagnostic, formative, and summative data to collaboratively analyze, interpret, communicate and evaluate the impact of instruction and related supports on achievement and behavior. Therefore, educators use a range of data sources to create instructional programming, monitor progress made toward individualized goals, and track student performance as a result of instruction. Data are used for more than developing goals, designing instructional programming, and tracking student performance. To increase effectiveness, educators also use data to evaluate their own teaching practices and adjust their actions with the constant goal of improving student outcomes. This personal reflection allows for further analysis of instructional practices (Nagro et al., 2017) and culturally inclusive pedagogies and practices (CIPP; Paris, 2012; Taylor et al., in press).

Effective educators identify evidence-based instructional and behavioral practices to address the needs of individual students (Leko et al., 2019). Although these practices may be evidence-based or widely considered effective, knowledgeable educators recognize that no single practice will be effective for every student. To determine effectiveness of instructional practices, educators work with other professionals and caregivers to make instructional decisions based on data related to student progress toward well-defined goals (HLPs 1 and 3). Formative data collection activities should be planned (e.g., curriculum-based measure, classroom-assessment, formal observations, self-assessment of instructional practice) and spontaneous (e.g., student affect, student responses that prompt in-time instructional adjustments).

Effective educators use all sources of data to inform the cycle of continuous improvement (What Works Clearinghouse [WWC], 2009).

As the *Cycle of Data-Driven Planning* illustrated in the overview for Domain Two, the cycle of continuous improvement includes (a) collecting a variety of data regarding student learning from valid sources, (b) interpreting and communicating the data to determine the effectiveness of instruction, (c) developing alternative instructional approaches as necessary, (d) modifying instruction, and (e) continuing the cycle by collecting additional data to determine the effectiveness of the instructional change. Formative assessment data may be used to make instructional changes to intensify instruction (HLP 20); either through culturally inclusive organizational (e.g., increase dosage, decrease group size) or instructional changes (e.g., be more explicit, HLP 16), provide more systematic instruction (HLP 12), increase opportunities to respond (HLP 18), provide more specific feedback (HLP 8 and 22), introduce cognitive processing strategies (HLP 14) to improve student achievement (Wanzek et al., 2020), opportunities (Ladson-Billings, 2013), and outcomes.

The value of any data is in its use to improve student learning. Educators often understand that data is what informs instruction; however, they do not always understand how to use it appropriately (Datnow & Hubbard, 2015). Data is only useful when educators know how to use it to make meaningful instructional changes. Distinguishing the "what" from the "how" is the purpose of teaching and using the HLPs (Owiny & Cornelius, 2023). For **HLP 6** this is emphasized in the reflection elements of the definition (see Pillar HLP 6 on previous page); *educators evaluate and make ongoing adjustments, self-assessment of classroom instruction, teachers study their practice, and validate reasoned hypotheses.* Effective educators answer the "how" by setting time aside to reflect; asking themselves questions to determine the meaning of the data and how best to use the data to make adjustments. For instance, when educators progress monitor student responses to instruction, they might create a graph and plot weekly progress

in a visual format (see HLP 20). Educators then analyze graphed data to answer the question, "Will the student meet the goal in the designated time frame?" (Hosp et al., 2016). If the answer is yes, they continue with the existing plan. However, if the answer is no, they ask follow-up questions to determine why the intervention did not have the desired effect, evaluating student behaviors such as attendance and readiness (when appropriate for students' needs), as well as examining teaching behaviors like implementing with fidelity and providing timely feedback. The answers to these questions inform instructional adjustments; maybe instruction needs to be better aligned with student experiences, intensified, or implemented with the support of a fidelity checklist.

Effective educators also reflect on daily lessons asking, "was everyone engaged, did everyone have equitable opportunities to engage, what were the student responses during guided practice, how accurate were exit ticket responses, are there common errors or patterns?" Reflection on the answers to these questions informs subsequent lessons. Through reflection, educators determine what needs to be retaught, consider flexible grouping strategies (HLP 17) to reinforce concepts, and revise instruction to bring out and build upon students' lived experiences. Successful educators also reflect on their practice by asking questions related to student engagement (HLP 18) like, "How many opportunities to respond did I provide during instruction? Do I vary my questioning techniques to accommodate students?" They also consider their actions and movements; "Am I stationary when I teach or do I move around the room and use proximity to engage students?" These answers will inform new practices to implement in lesson delivery.

Assessment, both formal and informal, helps inform meaningful changes to instruction. Effective educators use a cycle of continuous improvement to advance student learning; not only to deliver specially designed instruction for students with disabilities, but to deliver meaningful and culturally inclusive instruction for all students. Educators that intentionally collect, analyze, and use data more effectively increase student opportunities. They implement purposeful improvement cycles that are driven by understanding student needs.

## Cultural Considerations

Effective educators appreciate and find value in the diversity of today's classrooms (McCray et al., 2021). They understand that one test on one isolated day is not likely to give a full picture of a student's abilities. They also understand some assessments have biases that can provide false results. When choosing the best assessments to gauge student learning and progress, educators must ask questions. Specific prompts should address: What information is being gathered, what is the best method to capture information, and where and when will the student be comfortable enough to demonstrate knowledge? The effective educator not only takes time to consider these questions, but does so through the lens of considering students' individualized needs.

Effective educators get to know students, building relationships so they can tell or at least confidently ask students about their day or lives. Through information gained via educator-student relationships, they understand some assessments need to be postponed or not administered at all. To illustrate, if you had a car accident or perhaps got a speeding ticket on your way to school, you would likely want to postpone an administrator

HLP 6 is a key part of meaningful collaboration with both professional educators (HLP 1) and families (HLP 3). Data informs how to set up a consistent organized and responsive classroom environment (HLP 7), as well as what to teach and how to teach utilizing explicit instruction (HLP 16). The continuous data helps educators to know how and when to intensify instruction (HLP 20).

observed lesson for your "final evaluation." Yes, everyone should be able to compartmentalize and focus on the task at hand, but sometimes that is not possible for adults, and the same consideration should be given to children. Therefore, effective educators contextualize the experiences and daily events students bring with them on any given day, and reflect on the validity of assessment results that might be affected (Riddle, 2017).

Similarly, educators who are considerate of cultures and support learning of all students incorporate input from family members (HLP 3) when determining the purpose of assessing students (Cioè-Peña, 2020). When assessments are needed, educators and families collaborate to determine which assessments to administer. Federal mandates require families to provide informed consent before testing (IDEA, 2004). Just as skilled educators can interpret and explain data (HLP 5) to families, they also can explain the purpose of each proposed assessment and what the student will be asked to do during the assessment and under what conditions.

In the classroom, educators incorporate students in data analysis and interpretation. Students select work samples and explain why they believe they showcase their achievements. Educators value students' expression and reflect with them to highlight strengths, areas of growth since the last reflection, and work collaboratively with students to develop goals. Effective educators understand education is implemented with students not "to" them.

# Examples in Practice

## Elementary

*Mr. Stark is a new 3rd grade teacher at American Heroes Elementary School. Mr. Stark did not complete a traditional teacher preparation program, having switched careers as an inventor/ business owner. When he arrived in his classroom, he was met by veteran special educator, Ms. Potts. Ms. Potts had with her IEP at-a-glance files for each of the students with IEPs being placed in the classroom including the most recent assessment*

*data from the previous spring. While cordial, Mr. Stark tells Ms. Potts that he isn't interested in looking at the files or old data because he prefers to meet students with a clean slate unbiased by past information. Ms. Potts explains that using data to determine the present level of performance and to chart aim lines for growth in key areas is not a suggestion that can be ignored.*

*Ms. Potts shows Mr. Stark diagnostic, formative, and summative data for a sample student with an IEP. The data shows significant weaknesses in reading skills and growth. She then explains how these data help the team - including the family - make decisions about goals, what instructional practices should be used, grouping sizes and construction, duration of instruction, and an ongoing assessment plan. Mr. Stark admits he had no idea how data could be used so comprehensively to assist in his instruction. It reminded him of his work as an engineer and inventor and agreed to learn more. She recommends he check out some resources from the IRIS Center (https://iris. peabody.vanderbilt.edu/module/dbi2/cresource/ q1/p01/) including their module on data-based individualization and similar content from the National Center on Intensive Intervention (https://intensiveintervention.org/data-based-individualization).*

## Secondary

*Ms. Romanoff is a special education co-teacher at a large urban high school. She serves as a co-teacher in several content area classrooms. Her co-teacher for American History is Mr. Rodgers. Mr. Rodgers is a veteran of the U.S. Army, and joined the teaching force after his discharge using the G.I. Bill to pay for his teacher preparation coursework. In his coursework he did not receive much training on assessment, or teaching students with disabilities. But, as a conscientious teacher, he welcomes Ms. Romanoff into his planning time so he can better understand the needs of his students with disabilities, multilingual learners, and others who struggle.*

During their shared planning time in the first few weeks of school, Ms. Romanoff and Mr. Rodgers meet to discuss their shared student, Nick. Nick is eligible for services under the category of Emotional and Behavioral Disorders. Ms. Romanoff brings all of the most recent assessment data for Nick including input from his parents, last year's history teacher, observation data, an interview with Nick, his current short-term and long-term IEP goals, and grade reports. Nick struggles with responding to teacher questions and completing assignments, which typically ends up getting classroom referrals and low grades. Mr. Rodgers notes that he has several students he has targeted as already having trouble turning in assignments. To help meet his short-term goal of submitting 70% of assignments, Mr. Rodgers and Ms. Romanoff develop a strategy for students to track and graph their submissions. Nick particularly likes technology, and Mr. Romanoff has an idea to have Nick do the graphing first and then teach his classmates to do the same, since a strength identified in her assessments are leading and technology. Another challenge Nick has is listening or following teacher directives in front of the whole class. His short-term IEP goal is to follow teacher directives 80% of the time after being given a minute to comply. Based on her last year's data, Nick was not making any progress with this strategy. Using a resource from the Center on Positive Behavior and Intervention Supports (PBIS), Supporting and Responding to Students' Social, Emotional, and Behavioral Needs: Evidence-Based Practices for Educators, Mr. Rodgers and Ms. Romanoff select a few new strategies to implement with Nick. First, Mr. Rodgers read that in Nick's interview and input from his family, Nick shuts down when he thinks his teacher does not like or support him. PBIS suggests fostering positive relationships as a strategy by welcoming students and briefly inquiring about their interests or how they are doing. Mr. Rodgers and Ms. Romanoff decide this would be a good way to establish a rapport with Nick. Next, they find a strategy for providing non-verbal prompts to assist with the non-teacher responses. They make a plan to meet with Nick to discuss his leadership on the technology, the tracking of assignment submissions and his ideas on non-verbal cues to help with teacher directions. The co-teaching team, along with Nick, will review progress every three weeks to make adjustments as necessary.

# Research Support

It seems self-evident that educators who use student performance data to inform their decision-making, planning, and instructional changes would have a positive impact on student learning or behavior relative to peers who did not, yet this is an important research question to be addressed. There are several empirical studies, including randomized control trials, where researchers documented impact on student learning outcomes across reading and mathematics domains following teachers' inclusion of data-based decision making alongside their various instructional approaches. Although this can make difficult the detangling of variability contributed by the act of data-based decision making alongside the specific instructional approach being used (usually explicit instruction), there is strong evidence for this HLP (Nelson et al., 2022).

To begin, Gersten and colleagues (2009) conducted a meta analysis including seven randomized control trials documenting the impact of different interventions including data-based decision making on the mathematics outcomes of students with disabilities. Results were positive favoring students taught by educators who used data in their decision processes alongside explicit instruction and feedback. Filderman and colleagues (2018) conducted a meta analysis including 15 studies exploring the impact of data-based decision making on reading outcomes of students with disabilities. Results favored students taught by educators using data, which means they made statistically significant gains in their reading performance compared to peers taught by educators not using data in their decision processes. In a follow up review, Filderman and colleagues (2022) found educators can successfully learn to become data literate and develop skills for implementation. However, educators do not always do so (Datnow & Hubbard, 2016). This analysis and discussion provided by Filderman and team is critical because

many educators emerge from their preparation programs (or the street) without any specific skills for understanding data and making actionable decisions that lead to improved student outcomes.

## Conclusion

The capacity to make decisions based on data is without a doubt one of the most essential practices an educator needs in their repertoire.  The effective educator not only knows the value of data, but also how to collaborate with colleagues (HLP 1) and family members (HLP 3) to ensure appropriate decisions are being made based on students' individualized needs.  In the next chapter of the *Data-Driven Planning* domain we review embedded practices for Pillar Practice HLP 6.  These include using a range of data sources to make decisions (HLP 4), interpreting results of assessments so all audiences can understand (HLP 5), setting long- and short-term learning goals (HLP 11), and systematically designing instruction to address those goals (HLP 12).  These combinations of practices alongside the HLPs for *Collaboration* form the cornerstone of the effective teacher's repertoire.

# Resources to Implement Practices

| CEEDAR/CEC | |
|---|---|
| HLP Leadership Guide | https://exceptionalchildren.org/sites/default/files/2020-12/HLP%206%20Admin%20Guide.pdf |
| Structured Video Analysis | https://ceedar.education.ufl.edu/portfolio/plos-structured-video-analysis/ |
| Mixed-Reality Simulation for HLP 6 | https://ceedar.education.ufl.edu/portfolio/mixed-reality-simulation-for-hlp-6/ |
| **IRIS Center** | |
| Collecting and Analyzing Data for Data-based Individualization | https://iris.peabody.vanderbilt.edu/module/dbi2 |
| Response to Intervention (Reading instruction) | https://iris.peabody.vanderbilt.edu/module/rti03/#content |
| Quality Math Instruction | https://iris.peabody.vanderbilt.edu/module/math/ |
| Monitoring Student Progress Toward Meeting IEP Goals | https://iris.peabody.vanderbilt.edu/wp-content/uploads/pdf_info_briefs/Monitoring_Student_Progress_Toward_Meeting_IEP_Goals.pdf |
| **More Resources** | |
| Instructional Design, Backward Design | https://www.cultofpedagogy.com/backward-design-basics/ |
| Progress Center | Measuring Progress Toward Annual Goals: https://promotingprogress.org/sites/default/files/2020-10/Measuring_Progress_IEP_Tips.pdf |
| National Center on Intensive Intervention | https://intensiveintervention.org/training/online-learning-modules |
| Overview of HLP 6 | https://www.youtube.com/watch?v=unKKLnkgA9U |

**CHAPTER SIX**

# Embedded Practices for Data-Driven Planning

The embedded HLPs in this section are necessary to support Pillar Practice HLP 6. For an educator to effectively use data to inform instruction to improve student outcomes, they first need to collect the appropriate assessment data from multiple sources to understand student strengths and needs (HLP 4). This data must then be interpreted and communicated in understandable ways to all key partners (HLP 5) before it can be used by the IEP team to make instructional decisions (HLP 6), identify and prioritize short and long-term learning goals (HLP 11) and systematically design instruction to meet those goals (HLP 12). Each of these HLPs works in a cyclical process to help support the implementation of the others and ultimately ensure educators are using data to drive instructional planning. In this chapter, a brief description of the embedded HLPs is provided; their critical features are highlighted along with connections to pillar HLP 6. The chapter also shares cultural considerations, examples in practice, research support, and resources to implement practices for each of the embedded HLPs.

| **Updated HLP Framework** |
| --- |
| Pillar HLP 6: Use student assessment data, analyze instructional practices and make necessary adjustments that improve student outcomes. |
| Embedded HLP 4: Use multiple sources of information to develop a comprehensive understanding of a student's strengths and needs. |
| Embedded HLP 5: Interpret and communicate assessment information to collaboratively design and implement educational programs. |
| Embedded HLP 11: Identify and prioritize long- and short-term learning goals. |
| Embedded HLP 12: Systematically design instruction toward a specific learning goal. |

| Embedded HLP 4 | Use multiple sources of information to develop a comprehensive understanding of a student's strengths and needs. |
|---|---|

To develop a deep understanding of a student's learning needs, educators compile a comprehensive learner profile using a variety of assessment measures and other sources (e.g., information from students, parents, general and special educators, other partners) that are sensitive to intersectional backgrounds, experiences, and needs, to (a) analyze and describe students' strengths and needs, and (b) analyze the school-based learning environments to determine potential supports and barriers to students' academic progress. Educators collect, aggregate, and interpret data from multiple sources (e.g., informal and formal observations, work samples, curriculum-based measures, functional behavioral assessment [FBA], school files, analysis of curriculum, information from families). This information is used to create an individualized profile of the student's strengths and needs that reflects the whole child while considering sociocultural or intersectional context.

# Brief Description

Effective educators compile data from multiple sources (e.g., academic, social, emotional, adaptive and organizational, communication) to better understand the whole student and student learning. A comprehensive understanding of a student's strengths, challenges, motivations, and sociocultural context must be considered in order to provide instruction specially designed to meet their needs (Benedict et al., 2022). Additionally, culturally inclusive and relevant formal and informal assessment data are collected continuously to inform the effectiveness of interventions and to make adjustments as needed. Environmental factors can play a role in student learning and behavior. Culture, language, and family characteristics – along with teachers' response to these factors – can influence students' behavior and learning (Calder, 2019; Ogunyemi et al., 2020; Soland & Sandilos, 2021). Organized, supportive instructional environments positively influence students' learning and behavior (Leverson et al., 2021).

# Critical Features and Connection to Pillar Practice

Before data can be utilized to make instructional decisions, it is first necessary to have a complete picture of the student. A comprehensive student profile is essential to understanding the whole student. These profiles should:

- Delineate students' strengths and challenges,
- Describe their intersectionalities,

- Describe to the effectiveness of instruction,
- Include information about the instructional environment.

A comprehensive learner profile, continually revised based on instructional and behavioral data, is essential to develop, implement, evaluate, and revise instruction in ways that are sensitive to individual students' strengths and needs. Formal assessments are a key part of a comprehensive learner profile. These standardized assessments produce information about academic and behavioral strengths and needs, and independence levels. Additionally, they provide summative information about a student that can be compared to age-determined norms. Typically, these assessments are conducted annually and in specific academic areas. Students identified with disabilities may also have individually administered tests to assess their academic or behavioral functioning relative to their individualized education program. Examples of commonly used assessments include the *Woodcock-Johnson IV Tests of Achievement* or the *Behavior Assessment System for Children*. Other formal assessments may include criterion-referenced tests. These assessments compare student performance to a standard for a specific skill. For example, a criterion-referenced test may assess a level of reading fluency that is expected for 4th graders. Finally, diagnostic assessments may also be formal. These assessments provide information at a more granular level. For example, the *Diagnostic Assessment of Reading Comprehension* assesses multiple skills in comprehension including text memory, text inference, text access, and knowledge integration.

Informal assessments also add critical information to a learner profile. These are often referred to as formative assessments. These assessments are often teacher developed and based on the content being taught (Classen et al., 2020). These assessments may be personalized to the student and can give a snapshot of the student's skill at a specific time. Inventories, classroom checklists, and student work samples are examples that can pinpoint students' strengths and needs in an academic area. Direct observation of classroom performance and behavior (e.g., functional behavioral assessment) can also be used to document students' performance and how they respond to different behavior and learning supports. Transition assessments, such as the Brigance Transition Skills Inventory, can provide information necessary for a transition plan (Mazotti et al., 2021). Curriculum-Based Measures are another informal assessment that assist in identifying information to individualize instruction. These assessments are given quickly (generally only a few minutes) and frequently (often weekly) to measure ongoing student progress. An example is the web-based system *AIMsweb* which includes a variety of measures to assess reading, math, and written language that take approximately 2 minutes to administer. Finally, teachers should ensure informal assessments validate and consider students' intersectional identities. Less traditional methods may include project-based, reflective, experiential, hands-on, creative, and/or collaborative opportunities (Garvin-Hudson & Jackson, 2018; Novak & Khan, 2022) that highlight students' strengths and needs.

Additional information sources are needed to create a complete picture of a student's academic and behavioral goals and performance, particularly understanding environmental factors that may influence their learning. Students provide valuable information about their own learning and aspirations. Student interviews and surveys can generate data about their academic interests and their approaches to tasks and transition goals (Sanderson & Rojas, 2023). Students' family members can also provide information about students' interests and motivations and the cultural capital they use to adapt to their home and community environment, such as specific communication styles or life experiences (Harry & Ocasio-Stoutenburg, 2021; Kelty & Wakabayashi, 2020; Rios-Aguilar & Neri, 2023).

As educators collect information, they need to look for and interpret patterns in the data, as this will help them to synthesize the information they are collecting and to use the collected data for educational decision making. Additionally, educators should always question the results of assessments, asking, "Are intersectional factors impacting the results?" For example, a Hispanic student may score significantly different on a measure if it has only been normed via the results of White students. The use of multiple measures is essential in ensuring bias is limited in interpreting results. A self-reflective question may include: "How are the measures that I am using biased or how are my personal biases impacting how I am reviewing the results?" For example, using a measure that was normed via one identity group with no consideration for intersectional differences. Information in these individual profiles can be used to communicate with educational partners and families in order to develop a team-based approach to supporting students with disabilities—one where information is used continually to design, evaluate, and revise instruction.

## Cultural Considerations

A key aspect in creating a comprehensive student profile based on multiple data sources includes considering how culture and language might be influencing a student's performance (Cioè-Peña, 2020). Many assessments are known to include bias, skewing results based on a student's race, ethnic background, home language, or economic status. Using only one source of data or not considering the potential for culture and language to impact assessment scores results in incomplete or inaccurate student profiles and may lead to students being over- or under-diagnosed with disabilities (Artiles, 2015). When educators use multiple sources of data, including informal assessments that validate and consider students'

linguistic and cultural identities, it provides a stronger and more robust student profile that will assist in making instructional decisions (Riddle, 2017). Educators should always incorporate self-questioning when interpreting assessment data to consider cultural and linguistic implications. Examples of self-questions may include:

- Is the assessment congruent with the student's cultural repertoire? Examples:
  - Asking a student in Florida to write about a snow day.
- Is the assessment sensitive to the student's linguistic background? Example:
  - Having an emerging multilingual student take a formal standardized assessment in English.
- Was the context appropriate and conducive for the student to perform well?
  - Conducting an assessment when a student comes to school upset.

# Examples in Practice

### Elementary

*Ms. Davis is a 3rd grade inclusion teacher working across the team of teachers to support students with disabilities in the general education classroom. She spends an hour every Thursday meeting with the teachers to plan for assessments the following week. During the planning sessions, Ms. Davis reviews the upcoming assessments and identifies specific supports the students on her caseload will need to be prepared. Some of the students will need pre-assessment tutoring in small groups while others will need extended time. She is most focused on three students who are emerging bilinguals receiving Tier II intervention for learning disabilities. To strategically support the students and Mr. Aguilar, their English/Language Arts teacher, Ms. Davis offers to review the vocabulary terms that pose the greatest risk for errors prior to the test and be in the classroom during the test for additional assistance. She also suggests that if the students still struggle on the assessment, they work with the bilingual specialist to assess them in their native language.*

### Secondary

*Mr. Silverman, the 8th grade history teacher, is concerned about the students with learning disabilities in his class keeping up with the material and being ready for the end of semester exam. He consults with his co-teacher Mrs. Lewis about how to ensure the students are comprehending the material and able to demonstrate their understanding. She shares each student's learning profile, which includes data from previous assessments and anecdotal records from the school psychologist, and notes that three of the four students have strong auditory processing skills. For these students, she suggests they have the option to take the exam in an alternate location so they can have items read to them if needed. The fourth student performs well independently given extended time. These accommodations are also documented in the students' IEPs so Mr. Silverman and Mrs. Lewis develop a schedule that will allow the accommodations to be implemented without making the students feel singled out.*

# Research Support

Well-prepared and effective educators recognize that any assessment on any given day only provides a snapshot in time of a students' abilities. This is further complicated by the context for and content of the assessment. As educators collect more data to inform a Multi-Tiered System of Supports (Hoover et al., 2020), it is an ethical imperative to ensure the assessments are appropriate to the learner, including the student's input, and the caregivers' perspectives (Reese et al., 2018).

Collecting multiple forms of data related to students' learning and progress is essential to ensuring their success (Powers et al., 2004). Research has demonstrated that students bring diverse cultural repertoires, strengths, and needs into the classroom (Trent et al., 2014). Their complex backgrounds might include being identified as having or being at-risk for disabilities. Therefore, educators must take a multi-disciplinary team approach to developing and implementing individualized instruction and intervention for each

student (McCray et al., 2021). This means actively collaborating with multiple professionals from a variety of disciplines and with varying perspectives and expertise.

# Resources to Implement Practices

| HLP Leadership Guide | |
|---|---|
| HLP 4 | https://exceptionalchildren.org/sites/default/files/2020-12/HLP%204%20 Admin%20Guide.pdf |
| **Curriculum-Based Measurement** | |
| easyCBM | https://app.easycbm.com |
| Intervention Central | https://www.interventioncentral.org/ |
| DIBELS | https://dibels.uoregon.edu/ |
| **More Resources** | |
| Formative Assessment | https://ccsso.org/resource-library/formative-assessment-examples-practice |
| IRIS Center Case Study | Data-Based Decision Making: https://iris.peabody.vanderbilt.edu/wp-content/uploads/pdf_case_studies/ ics_rtidm.pdf |
| IRIS Center Module | Developing High-Quality IEPs: https://iris.peabody.vanderbilt.edu/module/iep01/ |

| Embedded HLP 5 | Interpret and communicate assessment information to collaboratively design and implement educational programs. |
|---|---|

Educators interpret assessment information for different partners (e.g., other professionals, families/caregivers, students) and involve them in the assessment, goal development, and goal implementation process. Educators must understand each assessment's purpose, help key partners understand how bias may influence interpretation of data generated, and use data to collaboratively develop and implement individualized and culturally inclusive education and transition plans that include goals that are standards-based, include appropriate accommodations, modifications, and fair grading practices that are aligned with students' intersectional needs.

# Brief Description

One of the central components of providing services for students with disabilities is convening a team that includes key professionals and family members/caregivers to collaboratively create an IEP (Council for Exceptional Children, 2023; Smith, 2021). A high-quality IEP is the primary tool used to (a) individualize instruction, (b) support students with disabilities in making progress towards learning goals and objectives, and (c) provide guidance to monitor progress. The team works together to consider the student's strengths and needs based on assessment information and work collaboratively to design an educational plan that, when implemented, will produce meaningful educational outcomes for the student. Because implementation and assessment of the educational plan are ongoing, educators need to be able to interpret and communicate assessment results regularly with the student, other educators, staff, and families as part of the effort to monitor a student's response to instruction.

# Critical Features and Connection to Pillar Practice

In order for assessment data to be useful in informing instruction (HLP 6) it must first be interpreted and communicated to all partners. The first step in this process is to gather the assessment information and make it available to the IEP team, communicating the results in a format that is jargon-free and easily understood by all team members. For some team members, assessment data may need to be interpreted with regard to its importance to developing goals, choosing appropriate

accommodations and modifications, and identifying fair grading practices. Research indicates that families often feel overwhelmed and anxious at IEP meetings, and family members have reported they understand none or only some of the information presented at the IEP meeting (e.g., Dunn et al., 2022; Rossetti et al., 2020). When parents are involved in the assessment process from the start they are better able to understand the purposes of the assessments and the results. In addition, family involvement in the assessment process encourages consideration of intersectional factors and the role the family may play in interpreting assessment results. Understanding the assessment challenges of students from culturally and linguistically diverse backgrounds is vital because this population of students is often misrepresented in special education (Mohamed, 2023; NCLD, 2020). Educators must take an active role in communicating assessment data and gauging the understanding of all team members, paying particular attention to families' understandings to ensure families can genuinely and meaningfully collaborate with education professionals.

It is important to remember that not all parents orientate to the educational system or educational communication the same way. With consideration to cultural norms, some parents appreciate proactive and positive communication that recognizes student strengths and builds on student assets (Carlson et al., 2020). Assessment results that are based on family input encourage collaborative interactions with families and value their expertise (Mahdavi, 2017). One strategy that can assist is providing families with information about assessment data prior to eligibility and IEP meetings. This can help families prepare for team

meetings, allowing them to generate questions they may have and alleviate feelings of being overwhelmed and having too much information to understand (Larios & Zetlin, 2022; Sanderson & Goldman, 2023).

Educators may also serve as advocates for the family. During meetings with the team, it is the responsibility of all educators to make sure that assessment data are presented in clear and understandable terms. It is important that all team members have time to ask questions and describe supports that they believe would be important for the student. In communicating with various partners, it may be helpful to put together a table (see Figures 6.1 and 6.2 on the following pages for examples) that outlines each assessment in easy to understand and culturally inclusive language, what the assessments measure, and potential implications for the IEP and interventions (see Kamman & McCray, 2022). The table can be altered for each partner to emphasize areas that may be most relevant. As might be anticipated, a table created for a paraeducator may look different than a table created for the student participating in the IEP meeting. It is critical to always consider communication of assessment data to the students themselves. Students are important partners in making determinations of goals, particularly as transition plans are created.

Finally, educators are tasked with not only communicating initial assessment data, but ongoing assessment data. It is important to have a regular system for communicating with all partners as students' IEPs and interventions are continually revised based on assessment data. Educators need access to the newest assessment data to collaborate and to understand if interventions are effective and adjust instruction accordingly.

## Cultural Considerations

Assessment data can be overwhelming for educators so it is not surprising families and students may feel anxious about the communication of data results. Family involvement, by recognizing and valuing family input, is an important cultural

and linguistic consideration. Educators can assist in alleviating these feelings by taking an active role in including families. Providing assessment results, in easily understandable, jargon-free language, prior to a meeting can allow families to digest information and form questions. In meetings, educators must dedicate enough time to ensuring every partner, including families, understands the assessment results, and can ask questions or provide perspectives of results that may include factors related to culture and language.

## Examples in Practice

### Elementary

*Ms. Murphy (general education teacher) and Mr. Castro (special education teacher) are preparing for an upcoming IEP meeting for Theo, a 4th grade student with a specific learning disability. They create a data-driven planning table (Figure 6.1) with easily understandable language to share with all partners in the IEP team. Mr. Castro meets individually with Theo to discuss the table. Theo practices sharing the data with the IEP team. Mr. Castro sends the data-driven planning table home for Theo's family to review a week prior to the IEP meeting. At the beginning of the meeting, Theo hands out the data-driven planning table and explains each assessment. Mr. Castro pauses at each assessment to discuss the findings and check in to ensure that Theo's family understands the results. The IEP meeting continues, and Figure 6.1 is referenced in the adjustment to Theo's goals and instructional practice.*

**Figure 6.1** *Data-Driven Planning Table, Theo*

| Assessment | Results | Interpretation | Questions |
|---|---|---|---|
| Family Questionnaire | Theo gets upset when asked to read in front of other people. As an example, he doesn't want to go to a restaurant if he has to read a menu. | Need- Theo does not like others to know he struggles in reading. | |
| Student Interview | Theo likes technology, class discussions, but doesn't like to be called out in front of his friends. | Strength- Consider providing opportunities for Theo to use technology in his instructional goals. | |
| Standardized Test | Reading Grade Level Equivalent: 2.2 National Percentile Rank: 27 | Need-Theo is approximately two years behind his grade level peers. | |
| Curriculum Based Measure | Theo currently reads 54 words per minute on a 2nd grade reading passage (probe), Increased from 35 words per minute. | Need- Slightly higher than the 2nd grade benchmark of 50 words per minute, making progress. | |
| Teacher Observation | Theo is motivated by tracking his own progress in reading goals. | Strength- self-motivated by data. | |

### Secondary

*Mrs. Weller is the special education consultation teacher. She has Kadejah on her caseload, a 10th grader, who has been diagnosed with an emotional disturbance. Kadejah's short term goal is to ignore her peers when given a cue by her teacher. At the two week observation, Kadejah's general education teachers report a tally of the number of times she responds to the cue as opposed to engaging in conflict with a peer. Figure 6.2 shows her most recent results.*

**Figure 6.2** *Data-Driven Planning Table, Kadejah*

| Teacher | Ignored Peers after Cue | Engages in Verbal Conflict |
|---|---|---|
| Mr. Lenny | 5 | 0 |
| Mrs. Belvin | 2 | 3 |
| Coach Jones | 3 | 0 |
| Mrs. Hernandez | 4 | 1 |

*The data shows an overall improvement from the last observation where Kadejah was in engaging in verbal conflict no less than twice in each period. Mrs. Weller meets with Kadejah and Mrs. Belvin to discuss why she is having challenges in this particular class and to consider an adjustment to the cue strategy to assist in this class period. Kadejah reports that she doesn't always hear the cue from Mrs. Belvin. They decide to alter the cue to handing a pencil to Kadejah to add a physical component. Mrs. Belvin will continue to track instances and they will check on progress in two more weeks.*

## Research Support

Having all the relevant data is foundational, but is only the first step in data-driven planning. Assessment data must be interpreted and communicated for it to be useful in informing instruction, paying particular attention to the challenges faced by students from culturally and linguistically diverse backgrounds. Additionally, researchers have reported that families feel overwhelmed with data contributing to their anxiety and limiting their participation (Dunn et al., 2022; Rossetti et al., 2020). Providing data to families in preparation for meetings can assist in easing anxiety and give them time to bring questions (Larios & Zetlin, 2022; Sanderson & Goldman, 2023). Moreover, research suggests that families appreciate positive communication that highlights student assets and strengths (Carlson et al., 2020). There is evidence that working in a collaborative team to discuss and interpret data helps to improve the use of data (Abrams et al., 2021; Schildkamp & Poortman, 2015) and encourages families to participate (Mahdavi, 2017).

## Resources to Implement Practices

| CEC/CEEDAR | |
|---|---|
| HLP Leadership Guides for HLP 5 | https://exceptionalchildren.org/sites/default/files/2020-12/HLP%205%20Admin%20Guide.pdf |
| Mixed-Reality Simulation for HLP 5 | https://ceedar.education.ufl.edu/portfolio/simulation-package-for-hlp-5/ |

| Embedded HLP 11 | Identify and prioritize long- and short-term learning goals. |
| --- | --- |

Educators prioritize what is most important for students to learn by providing meaningful access to and success in the general education and other contextually relevant curricula. Educators use grade-level standards, assessment data and learning progressions, students' prior knowledge, and IEP goals and benchmarks to make decisions about what is most crucial to emphasize, and develop long- and short-term goals accordingly. They understand essential curriculum components, identify essential prerequisites and foundations, and assess student performance in relation to these components.

# Brief Description

An IEP team develops learning goals for students with disabilities that are both long- and short-term; these goals determine the focus of the instruction. However, all educators create long- and short-term goals for instruction; whether for small or large groups of students. Learning goals are differentiated and include those for students' IEPs as well as for specific subjects (e.g., what to emphasize in math) or subareas (e.g., teaching particular concepts and skills in fractions, comprehension of expository text, linear measurement). In prioritizing these goals, educators identify the most essential, powerful, equitable, and crucial learning outcomes. Multiple policy and practice factors influence this process.

# Critical Features and Connection to Pillar Practice

Short-term and long-term goals cannot be developed without utilizing data and analyzing instruction (HLP 6). The Individuals with Disabilities Education Act (IDEA, 2006) along with the Every Student Succeeds Act (ESSA; 2015), promote meaningful involvement of all students in the general education curriculum. The IDEA requires IEP goals be based on data related to the student's present level of academic achievement and functional performance (20 U.S.C § 1414 [d] [1][A][i][I]), and that students make meaningful progress toward the general education curriculum. Like IDEA, the Every Student Succeeds Act (ESSA; 2015), requires states to "promote the involvement" of students with disabilities, including those with significant cognitive disabilities, in the general education curriculum (U.S. Department of Education, 2016, p. 24). Federal legislation requires

99% of students with disabilities of all categories take the statewide assessments. If students are going to be successful, they need access to meaningful and culturally inclusive pedagogies and practices (CIPP). The instruction teachers design should be created by identifying and prioritizing long- and short-term learning goals.

To create long-term goals effective educators use these three steps: a) determine baseline data, b) reflect on grade level standards and expectations, and c) calculate rigorous and meaningful goals (Goran et al., 2020). Educators use data collected with pre-assessments (e.g., unit pre-assessments, curriculum-based measurements, student work) to determine the student's present level of performance. Next, they look at the standards and expectations, what do students need to know by the end of the instruction to be considered proficient on this standard? What skills are needed to meet the standard? Understanding the answers to these questions and how these are all related guide effective educators in developing the goals that become the foundation of systematically designed instruction. Meaningful and realistic goals are developed by considering where the students are now and determining where they need to be by a certain time frame.

To determine short-term goals, educators may reflect on common error patterns evident in student work, or simply break the long-term goal into shorter benchmarks. Short-term goals are more individualized based on the baseline data and student need. When establishing short-term goals, it is crucial to maintain alignment with the expectations of the long-term goal. Remember short-term goals will help determine if students are on track to meet the long-term goals. Keeping track of this data to progress monitor will inform

the cycle of data-driven planning (see *Data-Driven Planning Cycle* in domain overview). Once it is determined where students need to be at the end of the designated period of time, set a long-term goal that will be both rigorous and realistic. Then determine what will help set the stage for students to achieve the long-term goal, and set short-term goals accordingly.

Goals for elementary and secondary students will use the same process but may be with different data sources. For example, elementary schools may use curriculum-based measurements (CBM) as universal screening measures for basic skills. Goals based on these scores can be established with the norming charts and expected growth rates available through the publishers. Once students have completed the screening, class averages as well as individual student scores guide long-term goals based on beginning, middle, and end of year expectations. Establishing baseline data at the secondary level often involves school or classroom-based assessment due to the limited availability of published CBMs for older students.

# Cultural Considerations

Short- and long term goals are relevant to every student, not just those with disabilities but also those identified as limited English proficienct (Driver & Powell, 2017) or gifted (Lo & Porath, 2017). When setting short or long-term goals start with student data, then consider the standards and expectations of the curriculum. Reflect on the varied intersectional background knowledge of students, as well as prior instructional and school experiences, to identify potential barriers and the purpose of the goal to move student learning forward (Zusho et al., 2023). Educators should develop short and long-term goals collaboratively with students and their families to ensure that goals are meaningful to all partners, and informed by numerous information points including lifelong college and career aspirations.

# Examples in Practice

### Elementary

*Ms. Boscto is a special education teacher supporting K-2 grade levels. She is working with the IEP team to set a long and short term reading fluency goal for one of her students, Adelyn. Ms. Boscto administers a curriculum-based measure over a five week period to collect baseline data on the number of words read correctly per minute by Adelyn. Ms. Boscto then uses nationally normed charts to determine what an appropriate fluency goal might be by the end of the IEP year. Collaboratively, she works with the IEP team to determine if this goal is the right goal for Adelyn, taking into account parental input and concerns and grade level expectations. Next, Ms. Boscto and the IEP team develop a short term goal that will benchmark towards the long term goal. The team decides on a nine-week progress monitoring period, with a weekly reading fluency curriculum-based measure, and calculates the expected words correct per minute for the short term goal. Ms. Boscto creates a progress monitoring graph to update weekly that will clearly show Adelyn's progress towards the goal. This will allow Ms. Boscto to determine how Adelyn is responding to instruction and if any adaptations are needed to best support her.*

### Secondary

*Mr. Logan is a high school special education teacher supporting numerous content areas. Several of his students are struggling in their science and social studies classes, where they have less direct instructional support from an inclusion teacher. Mr. Logan wants his students to see they are progressing in their understanding of the content, and also support them in understanding critical vocabulary essential to comprehending complex concepts. He works with grade level teachers to identify key vocabulary terms for the grade level curriculum and develops a progress monitoring measure to administer monthly. This allows students to see and understand their growth over time on content area vocabulary that will support their*

*access and mastery of grade level concepts.*

## Research Support

   Research supports the use of student learning goals for improving outcomes (e.g., Leithwood & Sun, 2018; Moeller, 2012).  For instructional goals, effective educators start with the grade level standards. For example, all states have literacy standards, or curriculum goals. A common standard at the secondary level calls on students to "produce a written argument". That standard is quite vague and is not a measurable goal. The standards often provide indicators that may expand the expectation to include "clear topic", "evidence to be focused", and other just as vague descriptions. Effective educators use these standards, indicators, and their professional knowledge to create a rubric of what students need to know, and what an acceptable final written produce will look like. They can then create a prompt and evaluate student work using the rubric to establish baseline data.  With that baseline data in hand, the teaching teams can then reflect on the student's present level of performance and how much instructional time is available, and calculate a realistic long-term goal based on that information (Conoyer et al., 2019; Lembke et al., 2017).  Fortunately, research also indicates students experience more growth and teachers report higher levels of self-efficacy when data-driven planning informs goal setting and instructional planning (Lee et al., 2020; Madinach & Gummer, 2018; Nagro et al., 2017; van der Scheer et al., 2017; William, 2008).

## Resources to Implement Practices

| CEC/CEEDAR | |
|---|---|
| HLP Leadership Guides | HLP 11: https://exceptionalchildren.org/sites/default/files/2021-01/HLP%2011%20Admin%20Guide.pdf |
| HLP Videos | HLP 11: https://highleveragepractices.org/hlp-11-goal-setting |

| Embedded HLP 12 | Systematically design instruction toward a specific learning goal. |
|---|---|
| Educators help students to develop important concepts and skills that provide the foundation for more complex learning. Educators sequence lessons that build on each other and make connections explicit, in both planning and delivery. They activate students' prior knowledge and show how each lesson "fits" with previous ones. Planning involves careful consideration of learning goals, what is involved in reaching the goals, and allocating time accordingly. Ongoing changes (e.g., pacing, examples) occur throughout the sequence based on student performance. | |

# Brief Description

Effective educators design instruction that will help students meet rigorous learning goals through a well-planned, purposeful, and culturally inclusive approach. Explicit and systematically designed instruction is beneficial for all students, and appropriate for all grade levels and content areas. This is especially true for students with disabilities (Archer & Hughes, 2011), and essential to implementing intensive intervention within a multi-tiered system of supports (MTSS; Sailor, 2021). Explicit and systematically designed instruction is grounded in data, aligned with learning goals, evidence-based, informed, intentional, reflective, and responsive (Riccomini et al., 2017, Sayeski et al., 2023). Once educators have identified and prioritized clear learning goals, they design instruction that is logically sequenced, structured, culturally inclusive, and scaffolded to help students develop essential concepts and skills.

# Critical Features and Connection to Pillar Practice

Educators select instructional content based on student learning goals and strategically plan when and how each skill and concept will be taught to lead to mastery. Considerations include students' prior knowledge, ongoing progress monitoring and classroom assessment data, and the scope and sequence for teaching grade level or subject area standards. Instruction is sequenced logically to support and scaffold student learning. Less complex knowledge and skills are taught before more complex outcomes, information that is used frequently in the curriculum is taught prior to content that appears less often. Prerequisites are mastered before higher level knowledge and skills,

unambiguous information is taught before less clear material, and content and skills similar in form or function are first taught separately (Archer & Hughes, 2011). Educators consider the types of questions and prompts that will best gauge student understanding, and strategically plan checks for understanding in the lesson to increase rigor and complexity.

Effective educators plan for a logical sequence and anticipate timing for each lesson and instructional unit; however, they also actively adjust their pacing in response to student understanding. Because even the best designed instruction may not result in satisfactory outcomes for all students, it is critical that student learning be monitored within and across lessons. Effective educators evaluate their own practices to identify inadequate lesson goals, inefficient lesson sequencing, cultural exclusivity, or ambiguous connections as possible contributors. Reflective and responsive educators use a variety of culturally appropriate formal and informal assessment techniques within and across lessons, collecting information on student understanding to inform any adjustments or adaptations needed.

Proactive, positive behavior support is also an important element of systematically designed instruction. Effective educators plan activities that promote student engagement in the lesson and design routines to ensure a smooth flow of instruction. Proactive, positive behavioral supports that can be embedded into lessons include use of whole-group response systems, movement integration, visual supports, and student choice (Nagro et al., 2019). Reflective and responsive educators use a variety of formal and informal assessment techniques within and across lessons,

collecting information on student understanding to inform any adjustments or adaptations needed.

# Cultural Considerations

Each lesson should consider students' prior knowledge (Hattan et al., 2023) and funds of identity (i.e., intersectional identities; Esteban-Guitart & Moll, 2014) to make explicit connections to instructional content. Funds of identity refer to the historical, cultural, and socially distributed resources that all contribute to an individual's self-definition, self-expression, and self-understanding (Esteban-Guitart & Moll, 2014). Designing lessons with explicit connections helps students understand why the new skill or concept is important, the associations with what they have already learned, and how it relates to their own lived experience and unique lens as an individual. By helping students see how the lesson "fits" in the larger instructional scope and sequence and in their lives, teachers support students' understanding, motivation, and engagement. Future instruction can then build off of each prior lesson, systematically moving students closer to their learning goals.

# Examples in Practice

### Elementary

*Mr. Rodriguez is a 1st grade general education teacher in a culturally and linguistically diverse classroom. By the end of the first month of school, he collected baseline data for all of his students and worked with the school intervention team and special education teacher to establish short and long term reading goals for each of his students. Mr. Rodriguez keeps individual folders for each of his students with their reading goal and beginning of year baseline, so that he can connect weekly progress monitoring and daily instruction to a bigger purpose. He can also use these individual folders for family and student conferences to visually present students' progress throughout each quarter. Mr. Rodriguez strategically plans for small group reading instruction by considering his students' baseline data, grade level curricular guidance, and students' weekly progress monitoring*

*data. Reading groups are fluid and responsive to the exact skills and knowledge each student needs to master. This allows Mr. Rodriguez to tailor his instruction to focus on the crucial prerequisites needed to progress to more complex concepts for students at varying levels of proficiency.*

### Secondary

*Ms. Miller is a 9th grade Algebra I teacher. She works collaboratively with her co-teacher Ms. Gerard to plan and deliver grade level instruction that is accessible for all of their ninth grade students, many of whom scored at the "Unsatisfactory" or "Approaching" level on the state standardized assessment the previous year. Ms. Miller wants her students to understand how each lesson connects to their prior knowledge, academic goals, larger college and career goals, and everyday lives. Both teachers take time at the start of the year to get to know their students and consistently show interest in the information students choose to share about their cultural and linguistic assets. They create and structure mathematical problems that reflect meaningful contexts in their students' lives, helping students see the value and meaning in learning the processes in addition to learning algorithms.*

# Research Support

Systematically designed instruction involves making explicit connections among content and skills within and across lessons. Explicit and systematically designed instruction supports student learning across all content areas (e.g., Doabler et al., 2015; Fien et al., 2015; Gallagher et al., 2019; McMaster et al., 2020). Explicit and systematically designed instruction allows students to link prior and new knowledge; see relationships among facts, concepts, and principles; and organize content to maximize retention, deepen understanding, and facilitate application. For example, the use of graphic organizers to visually represent relationships within and across concepts can support students in making connections while learning new content (Boon et al., 2018; Ciullo et al., 2015; Singleton & Filce, 2015). Graphic organizers,

or concept maps, support student connections between their prior knowledge, lived experiences, and understanding of new concepts. Graphic organizers can support vocabulary acquisition, multiple representations of concepts, and examples and nonexamples. Instruction designed in this way helps students see the big picture of what they are learning, why it matters, and how they are progressing towards their goals in each instructional lesson.

## Resources to Implement Practices

| CEC/CEEDAR | |
|---|---|
| HLP Video | HLP12: https://highleveragepractices.org/hlp-12-systematically-design-instruction-toward-specific-learning-goal |
| HLP Leadership Guides | HLP 12: https://exceptionalchildren.org/sites/default/files/2021-01/HLP%20 12%20Admin%20Guide.pdf |

# Conclusion for Embedded Practices for Data-Driven Planning

Data-driven planning is a process, a continual loop of assessment, analysis, and action to plan and adjust instruction. Students are not widgets to be created in conveyor belt fashion. Each student has strengths that need to be built upon and unique needs that need to be addressed. Students come into classrooms from different intersectional backgrounds that should be celebrated and allowed to flourish, not squashed and forced into a box to move along to the next grade. When instruction is based on student data it is more impactful. The content standards may be "given" to teachers; however, when considering long-term and short-term goals all students are considered in lesson planning. This is especially true with IEP goals for students with disabilities.

Effective educators use culturally appropriate multiple sources of data (HLP 4) to interpret and explain results to all team members (HLP 5), they also analyze and reflect on data to design and adjust instruction (HLP 6). This data includes, but not limited to, high-stakes testing, classroom data, as well as student context, culture, and language. This data is the base of all decisions. Data-driven planning starts with data to create long- and short-term goals (HLP 11). These goals along with the data drive systematically designed instruction (HLP 12). During instruction, effective educators continue to collect, monitor, and analyze data to adjust instruction and keep the cycle of data-driven planning moving.

# Putting It All Together

While *Data-Driven Planning* is a critical piece in meeting the needs of students with disabilities, no HLP works independently of others. *Data-Driven Planning* must be done with *Collaboration* and informs *Instruction in Behavior and Academics* and *Intensify and Intervene as Needed*. Together these domains work together for student success.
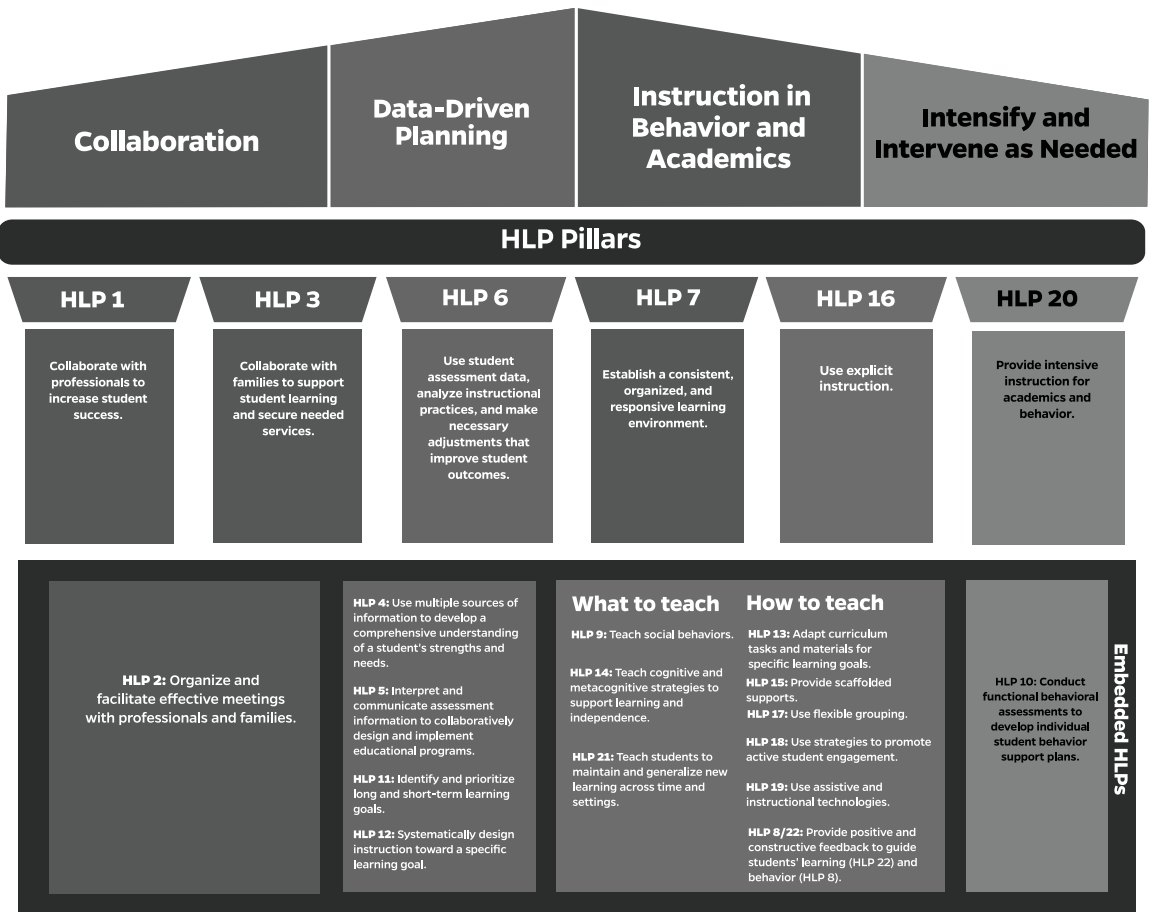
## Collaboration

Similar to designing logically sequenced lessons where instruction starts with less complex knowledge and similar skills are first taught separately, novice educators, or those new to the HLPs may think they must master one before the others. However, these HLPs are implemented at the same time as part of a process that supports one another. In data-driven planning, collecting multiple sources of data (HLP 4) must be done in collaboration with colleagues (Pillar Practice HLP 1) and families (Pillar Practice HLP 3) in a culturally inclusive way. Yes, special and general educators may bring to the table different strengths in interpreting and explaining assessment data (HLP 5), but together, these colleagues provide a more holistic interpretation of assessment results. Additionally, students and families are critical partners for understanding the family cultural context. All of these are important for HLP 4, as well as the formal and informal data collected. Not only do all these data provide needed information

for long- and short-term goal setting (HLP 11) they also provide the information to develop systematically designed instruction (HLP 12).

## Instruction in Behavior and Academics & Intensify and Intervene as Needed

Once instructional segments are planned, the link to other HLPs is just beginning. Using the data-driven planning cycle, effective educators assess, analyze, communicate, and take action for culturally inclusive pedagogy and practice (CIPP) for student growth. Data informs what explicit instruction is needed (Pillar Practice HLP 16), the adaptations (HLP 13) that will be needed and which elements of the content or skill need to be scaffolded (HLP 15). Likewise, data provides the basis for decisions about which flexible grouping (HLP 17) options to use, and if students are able to generalize and maintain (HLP 21) learning across time and setting. Informal observation (HLP 4) is data that informs the positive and constructive feedback (HLP 8 and 22) that educators provide students to guide their learning. The continuous data (Pillar Practice HLP 6) helps educators to know how to intensify instruction (Pillar Practice HLP 20) or individualize functional based support plans (HLP 10). *Data-Driven Planning* is connected to all instructional decisions.

## Collaboration

## Data-Driven Planning

## Instruction in Behavior and Academics

## Intensify and Intervene as Needed

## HLP Pillars

| HLP 1 | HLP 3 | HLP 6 | HLP 7 | HLP 16 | HLP 20 |
|---|---|---|---|---|---|
| Collaborate with professionals to increase student success. | Collaborate with families to support student learning and secure needed services. | Use student assessment data, analyze instructional practices, and make necessary adjustments that improve student outcomes. | Establish a consistent, organized, and responsive learning environment. | Use explicit instruction. | Provide intensive instruction for academics and behavior. |

**HLP 2:** Organize and facilitate effective meetings with professionals and families.

**HLP 4:** Use multiple sources of information to develop a comprehensive understanding of a student's strengths and needs.

**HLP 5:** Interpret and communicate assessment information to collaboratively design and implement educational programs.

**HLP 11:** Identify and prioritize long and short-term learning goals.

**HLP 12:** Systematically design instruction toward a specific learning goal.

### What to teach

**HLP 9:** Teach social behaviors.

**HLP 14:** Teach cognitive and metacognitive strategies to support learning and independence.

**HLP 21:** Teach students to maintain and generalize new learning across time and settings.

### How to teach

**HLP 13:** Adapt curriculum tasks and materials for specific learning goals.

**HLP 15:** Provide scaffolded supports.

**HLP 17:** Use flexible grouping.

**HLP 18:** Use strategies to promote active student engagement.

**HLP 19:** Use assistive and instructional technologies.

**HLP 8/22:** Provide positive and constructive feedback to guide students' learning (HLP 22) and behavior (HLP 8).

**HLP 10:** Conduct functional behavioral assessments to develop individual student behavior support plans.

**Embedded HLPs**

# DOMAIN THREE: INSTRUCTION IN BEHAVIOR AND ACADEMICS

Paula Lancaster, Central Michigan University

Kat D. Alves, Longwood University

Jamie Day, University of Missouri

Joseph Fisher, Grand Valley State University

Lynn Holdheide, American Institutes for Research

Aleksandra Hollingshead, University of Idaho

Michael J. Kennedy, University of Virginia

Timothy J. Lewis, University of Missouri

Suzanne McClain, University of Virginia

Wendy J. Rodgers, Virginia Commonwealth University

Dena Slanda, American Institutes for Research

Brittany Sterrett, American Institutes for Research

Danielle A. Waterfield, University of Virginia

Margaret P. Weiss, George Mason University

Nathan P. Welker, University of Virginia

## HLP Pillars

### HLP 7

Establish a consistent, organized, and responsive learning environment.

### HLP 16

Use explicit instruction.

## Embedded HLPs

### What to teach

**HLP 9:** Teach social behaviors.

**HLP 14:** Teach cognitive and metacognitive strategies to support learning and independence.

**HLP 21:** Teach students to maintain and generalize new learning across time and settings.

### How to teach

**HLP 13:** Adapt curriculum tasks and materials for specific learning goals.

**HLP 15:** Provide scaffolded supports.

**HLP 17:** Use flexible grouping.

**HLP 18:** Use strategies to promote active student engagement.

**HLP 19:** Use assistive and instructional technologies.

**HLP 8/22:** Provide positive and constructive feedback to guide students' learning (HLP 22) and behavior (HLP 8).

# Domain Overview

When educators and family members collaborate and use data to set goals and make essential decisions about students, they are positioned to make informed choices about instructional practices. This third section includes two **Pillar Practices** and nine **Embedded HLPs** from the newly constituted *Instruction in Behavior and Academics* domain. Pillar Practices are the most essential HLPs for educators to initially master and implement while Embedded Practices are necessary to adequately support pillar practices. Like the preceding sections, we provide a brief description of each practice interweaved with culturally inclusive pedagogies and practices (CIPP), give examples of implementation from elementary and secondary settings, provide research support and note key resources. That said, this domain differs from the first two given the significantly higher number of embedded HLPs to be presented alongside the identified pillar practices: **HLP 7:** Create a Consistent, Organized, and Responsive Learning Environment, and **HLP 16**: Use Explicit Instruction. *See Original HLP Framework* and *Updated HLP Framework at the start of this section.*

All HLPs across the four domains stand on their own as individual practices. However, as emphasized in this refreshed introductory text on *HLPs for Students with Disabilities* the practices gain utility and effectiveness via the way they overlap in sometimes obvious but also subtle ways. For example, every practice from this third domain stands on the shoulders of the *Collaboration* and *Data-Driven Planning* domains. Educators that collaborate in authentic ways with their peers, seek and utilize input from family members and make decisions using a range of data sources on the use of HLPs improve students' equitable access to high-quality instruction compared to the educator who neither collaborates nor references data in instructional decisions. In addition, the educator who is knowledgeable about the intersection of student cultural and linguistic identities, curriculum, and appropriate implementation of practice is well positioned to support the unique needs of students with and without disabilities. If educators only consider the HLPs one by one, this important cross synthesis is potentially lost. The practices noted in this section simultaneously make intensification of academic and behavioral supports for students possible. These connections are made clear in the concluding section.

The opening section of this book detailed the rationale for refreshing the HLPs for students with disabilities, which were first presented to the field in 2015. Risking redundancy, the authors of this book have a key advantage compared to the original authors in that the past years have highlighted ways in which the HLPs existed in and were interpreted by the field across grade levels, content areas, and for students of varying disabilities and backgrounds. With increased awareness, knowledge, and use of the HLPs for students with disabilities, new research has emerged further substantiating their value and implementation across various contexts (Liveoak, et al., 2023). However, in their interpretation and implementation, the field has still – more often than not – considered the HLPs as a collection of individual practices, and not necessarily the tangled, yet coherent web of practices argued for in this text. This section contains a discussion of how the pillar HLPs are used concurrently with the other academic and behavior instruction HLPs to design and implement high-quality instruction.

*Culturally inclusive pedagogies and practices* (CIPP) are those theories and practices that have centered multiple layers of sociocultural diversity and understanding in the educational sphere. That is, considering the wholeness of context, content, and constructs (e.g., people, resources, environments, etc.) that intersect and interact in the education space and influence life-centered outcomes. CIPP challenges deficit-based understandings of disability, "presumes competence" (Biklen & Burke, 2006), and interrogates intersectional oppressions.

| Original HLP Framework | Updated HLP Framework |
|---|---|
| HLP 11: Identify and prioritize long- and short-term learning goals. | Pillar HLP 16: Use explicit instruction. |
| HLP 12: Systematically design instruction toward a specific learning goal. | Pillar HLP 7: Establish a consistent, organized, and responsive learning environment. |
| HLP 13: Adapt curriculum tasks and materials for specific learning goals. | Embedded HLP 8: Provide positive and constructive feedback to guide students' behavior. |
| HLP 14: Teach cognitive and metacognitive strategies to support learning and independence. | Embedded HLP 9: Teach social behaviors. |
| HLP 15: Provide scaffolded supports. | Embedded HLP 13: Adapt curriculum tasks and materials for specific learning goals. |
| HLP 16: Use explicit instruction. | Embedded HLP 14: Teach cognitive and metacognitive strategies to support learning and independence. |
| HLP 17: Use flexible grouping. | Embedded HLP 15: Provide scaffolded supports. |
| HLP 18: Use strategies to promote active student engagement. | Embedded HLP 17: Use flexible grouping. |
| HLP 19: Use assistive and instructional technologies. | Embedded HLP 18: Use strategies to promote active student engagement. |
| HLP 20: Provide intensive instruction for academics and behavior. | Embedded HLP 19: Use assistive and instructional technologies. |
| HLP 21: Teach students to maintain and generalize new learning across time and settings. | Embedded HLP 21: Teach students to maintain and generalize new learning across time and settings. |
| HLP 22: Provide positive and constructive feedback to guide students' learning. | Embedded HLP 22: Provide positive and constructive feedback to guide students' learning. |

**CHAPTER SEVEN**

# Pillar Practices for Instruction in Behavior and Academics

**H**LP 16: Use Explicit Instruction is a key Pillar Practice for this domain. As demonstrated below, this HLP is the key for student learning success across grade levels and content areas, particularly when implemented in concert with the previously mentioned HLPs from domains 1 and 2, and those included in Domain 3: *Instruction in Behavior and Academics*. Use of explicit instruction is also core to practices associated with the next domain addressed in this book, *Intensify and Intervene as Needed*. The next key Pillar Practice is **HLP 7**: Establish a Consistent, Organized, and Responsive Learning Environment. All students, but especially those with disabilities, need stable, predictable, and organized learning spaces. In other words, if chaos reigns, learning is highly unlikely. HLP 7 is foundational for teachers to deliver quality instruction leading to the success of all learners (McClesky, 2017). As experts considered the role of explicit instruction and the creation of organized learning environments and their relationships to the other HLPs from the original instruction and behavior domains, it became clear there should be two groupings of Embedded Practices existing in support of these Pillar Practices: 1) **What to Teach** (Chapter 8), and 2) **How to Teach** (Chapter 9).

The distinction between what to teach and how to teach advances the notion that students with disabilities do not only need to master content, but also need to learn new ways to process and learn information. Educators utilize a range of practices to achieve this aim, and often must transfer or equip students with new skills to perform learning tasks. The practices grouped under the *What to Teach* heading are: **HLP 9**: Teach Social Behaviors, **HLP 14**: Teach Cognitive and Metacognitive Strategies to Support Learning and Independence, and **HLP 21**: Teach Students to Maintain and Generalize New Learning Across Time and Settings. Educators also use a range of practices to provide the best instructional opportunities to ensure that all students meet high academic and behavioral standards. The practices grouped under the *How to Teach* heading are: **HLP 13**: Adapt Curriculum Tasks and Materials for Specific Learning Goals, **HLP 15**: Provide Scaffolded Supports, **HLP 17**: Use Flexible Grouping, **HLP 18**: Use Strategies to Promote Active Student Engagement, **HLP 19**: Use Assistive and Instructional Technologies, and **HLPs 8 and 22:** Provide Positive and Constructive Feedback to Guide Students' Learning (HLP 22) and Behavior (HLP 8).

In this chapter **Pillar Practices HLP 16** and **HLP 7** are introduced.  Each practice includes an overall description, note embedded and called out indications for use of culturally inclusive pedagogies and practices (CIPP), and provide applied examples at the elementary and secondary levels, a research summary, and external resources.  In Chapter 8, the three embedded HLPs for "What to Teach: are presented and the same cycle of description, cultural considerations, elementary and secondary examples, a research summary, and resources are maintained.  Chapter 8 concludes with a high-level synthesis of how the three embedded *What to Teach* HLPs work seamlessly alongside Pillar Practices HLPs 7 and 16.  Chapter 9 presents the six *How to Teach* embedded HLPs.  The same cycle noted above repeats for individual and summary descriptions.  This section concludes with the heading "Putting it All Together" where guidance is provided to the field for their rollout of these essential practices related to instruction across behavior and academic domains and the other three domains; *Collaboration, Data-Driven Planning,* and *Intensify and Intervene as Needed.*

HLP 16: Use Explicit Instruction is a pillar practice because of its centrality to educators' work in academic and behavioral spaces.  The use of this one practice can form the basis of lesson planning and delivery for any grade level or content area and help put all students in position where they can successfully access content and learn.

HLP 7: Establish a consistent, organized, and responsive learning environment is a pillar practice because students cannot successfully learn when clear expectations are not in place and disorder is a common occurrence.  Successful orchestration, implementation, and maintenance of HLP 7 is the essential catalyst for the remaining HLPs and evidence-based practices to have the best chance of meaningfully impacting student outcomes.

| Pillar Practice<br>HLP 16 | Use explicit instruction. |
|---|---|
| Educators use explicit instruction to make learning new content, skills, and strategies accessible to students. When using explicit instruction, educators explain concepts by highlighting essential content, anticipating common misconceptions, and strategically choosing examples, non-examples, and language to facilitate understanding. They model and scaffold processes to enhance student understanding, readiness to apply skills, and completion of tasks. Educators provide students opportunities for supported and independent practice with feedback to learn, maintain, and generalize newly learned knowledge and skills to other relevant settings and situations. They choose when to model and scaffold steps or processes so that students can understand content and concepts, apply skills, and complete tasks. ||

# Brief Description

Rather than being one single instructional practice, explicit instruction is a pedagogical approach to teaching new content or skills. It involves a systematic way of presenting information, with the central principle of fostering a gradual release of responsibility for learning from the educator(s) to the students. According to Archer and Hughes (2011), a typical lesson using explicit instruction has five parts: (1) Opening or Advance Organizer, (2) Modeling of the content or skill, (3) Guided Practice, (4) Independent Practice, and (5) Closing. In the Opening, educators activate students' background knowledge and review any pre-requisite skills or content students will need to use during the lesson. For modeling, educators demonstrate the new skill or content while thinking aloud about process, cognitive steps, and decisions. Depending on the complexity of the content or skill being taught, educators may need to provide students multiple types of models and/or include non-examples to clarify decision-making processes. Once students clearly understand the model, educators lead them in guided practice, in which they continuously and intentionally elicit responses from the students to practice the content or skill while providing scaffolded supports and prompts. As students practice, the educator stays actively involved, monitoring closely in order to provide affirmative or corrective feedback and adjust the level of support in response to their level of mastery. Over time, educators gradually reduce the scaffolds and prompts until the students can accomplish the skill independently. When students begin practicing independently, educators continue to monitor their

work closely to provide ongoing feedback and to prevent them from unintentionally practicing errors. To close an explicit lesson, educators lead the students through a short review of the learning goal and content or skill learned.

A key instructional decision educators need to make is when to use explicit instruction. Explicit instruction is effective when teaching foundational concepts, skills, or strategies students need to be able to use flexibly and in support of more complex learning. In some cases, allowing students to explore concepts in structured or unstructured ways, such as using an inquiry-based approach may be more appropriate. These approaches are best when the goals are to provide freedom for creative expression or to build students' observational skills and hypothesis generation.

# Critical Features

Hughes and colleagues (2017) conducted a systematic literature review to explore the critical components of explicit instruction. They identified five essential components:

(a) Segmenting or chunking complex skills into smaller instructional units that are systematically sequenced;

(b) Modeling or demonstrating the skill or strategy with a think-aloud using student-friendly, consistent language;

(c) Systematically fading scaffolds and prompts as students gain confidence and ability to perform the skill or strategy;

(d) Providing frequent opportunities for students to respond and receive specific affirmative or corrective feedback; and

(e) Designing independent practice opportunities that are purposeful and include support for retaining skills over time and generalizing them to new contexts.

Other common elements of explicit instruction include activation of background or prior knowledge and verification that students understand any pre-requisite skills required for the new content.

Explicit instruction closely connects with many other HLPs. When teaching cognitive strategies (HLP 14), educators can explicitly model use of the strategy and support students in practice until they are able to use the cognitive strategy independently and in appropriate situations. Throughout an explicit instruction lesson, educators should provide students frequent opportunities to respond and engage actively with the content (HLP 18), which should be followed by specific feedback (HLPs 8 & 22). Scaffolding (HLP 15) is essential to creating the gradual release of responsibility. Explicit instruction can be used to teach academic content based on instructional goals (HLP 12) or to teach behavioral skills, such as social skills (HLP 9) or following norms and routines (HLP 7). Finally, explicit instruction is flexible enough to use in various grouping formats (HLP 17) or tiers of instruction (HLP 20). These connections are explored throughout this domain and section of the text.

# Cultural Considerations

There are many elements of explicit instruction that naturally connect to practices associated with culturally inclusive pedagogy, but educators need to specifically consider how they will support their students' cultures and backgrounds when preparing to deliver explicit instruction. The gradual release of responsibility inherent in explicit instruction, for example, aligns with a critical feature of Ladson-Billings' (1995) description of culturally responsive pedagogy: the importance of students

feeling academically successful, which comes from students feeling and demonstrating academic competence. By carefully monitoring students' responses and removing supports and prompts only when they are ready for more independence, educators ensure that students feel supported and experience success. By removing those supports as soon as students are able to work independently, the teacher shows they have high expectations, which is essential for students to feel and demonstrate competence (Sebastian, 2023).

One key feature of culturally inclusive pedagogy is "using students' culture as a bridge to the curriculum" (Sebastian, 2023, p. 29), so teachers should consider their students' cultures and backgrounds when designing or selecting the examples and non-examples they will model or demonstrate during explicit instruction. Educators should include concepts and contexts with which students can relate and connect. To support demonstrations and think-alouds, educators should include linguistic supports for multilingual learners, such as visual cues and student-friendly definitions of critical terms. Educators should be consistent in the language they use for models, examples, and non-examples. When choosing texts to use in modeling, educators select or create multicultural texts that reflect different cultures and social structures (Freeman-Green et al., 2021; Kourea et al., 2018).

Providing frequent opportunities to respond is, in itself, a culturally inclusive practice (Green & Stormont, 2018). Educators can use engagement strategies that are familiar to students and facilitate interaction with the material in ways that support their priorities, social structures, and natural ways of learning. For example, collaborative learning is valued in many cultures because learning is viewed as a social activity, so educators should look for ways to build in collaborative opportunities to engage, such as Think-Pair-Share or cooperative learning groups (Kourea et al., 2018).

Providing culturally inclusive opportunities to respond also means avoiding engagement strategies

that may be uncomfortable for students. Some students may experience anxiety if they are asked to share personal details or to read or perform in front of a large group of peers. Using total group participation techniques such as response cards or individual whiteboards allows students to respond actively and individually without added pressure. Additionally, centering opportunities to respond on topics common in the dominant (White) culture, such as Thanksgiving or Christmas traditions, can be exclusionary for students who do not share those cultural touchstones (Kourea et al., 2018) and may result in some students disengaging from the lesson. When planning questions and prompts, include a variety of topics to include all students' cultures and/or allow for choice and flexibility in how and when students engage.

# Examples in Practice

## Elementary

*Mrs. Van Houten is a 1st and 2nd grade special education teacher working across several classrooms to support students with IEPs. In a quarterly data meeting, the second-grade team is wondering why students are not showing expected gains on the district's math benchmark assessment. From the data, the team identifies a big stumbling block is the emergence of entry level word problems. Mrs. Van Houten asks her team how much modeling and guided practice for completing the steps of word problems they are providing for students. One teacher, Mrs. Bouvier, replies simply, "none." Not entirely surprised, Mrs. Van Houten offers to do some demonstrations for the team on what modeling and guided practice can look like in instruction. The general education team is excited to learn more. Mrs. Van Houten is careful to script a lesson with multiple models, knowing the "I do" phase of the lesson isn't literally one example and then move on. She knows she must model several times and confirm student understanding. Then, for the guided practice phase, she prepared several rounds of examples and nonexamples to illustrate that these principles of explicit instruction are powerful but can take time.*

## Secondary

*Dr. Hibbert earned his Ph.D. in chemistry and was hired to teach in a local high school. Teaching, however, is not all he hoped it would be. He is finding students are not engaged, interested, applied, or falling in love with chemistry as he did so many years ago. He uses methods similar to what his university professors used: Lecture, relevant lab work, and assigning challenging readings for homework. Mrs. Smith, the school's instructional coach, observed Dr. Hibbert's class on back-to-back days and then requested a debrief meeting. In the meeting, she noted Dr. Hibbert's enthusiasm for the topic but his lack of explicit teaching practices. In particular, his failure to use clear language, provide opportunities for students to respond or practice with the material, and deliver specific affirmative or corrective feedback is contributing to unwanted outcomes. These outcomes include students disengaging during instruction and poor scores on tests and other assignments. She also did not see him explicitly explaining various examples of concepts or thinking aloud during labs to share his expert thinking as he moved across phases of the activity. Mrs. Smith referred him to Archer and Hughes' (2011) text,* Explicit Instruction, *and their accompanying website www.explicitinstruction.org, to learn more about these teaching behaviors and offered to plan and co-teach a few lessons to help him incorporate these ideas.*

# Research Support

Explicit instruction is one of the most well-researched practices in special education. In a recent synthesis of special education meta-analyses (Nelson et al., 2022), researchers identified 20 meta-analyses representing over 500 studies about using explicit instruction. The meta-analyses represented students from various disability groups, including specific learning disability, autism, emotional disturbance, and intellectual disability. The studies were also conducted in different content areas, such as reading, mathematics, and behavior. Of the 500 studies on explicit instruction, Nelson and colleagues (2022) found that 72%

of them demonstrated large positive effects of explicit instruction on the dependent variable, and 19% demonstrated moderate positive effects. The only other HLP with such strong positive results was **HLP 15**: Use Scaffolding, which is a critical component of explicit instruction. Combined, these results bolster the research support for the explicit instruction approach.

Studies have addressed the effects of explicit instruction as an overall model and the specific behaviors or supports that comprise it, such as modeling (Hattie, 2009; Hattie & Yates, 2014), step-by-step demonstrations (Deshler et al., 2001), and guided and supported practice (Capin et al., 2017). Explicit instruction has been used to effectively teach vocabulary (Gallagher et al., 2019; Patrona et al., 2022), reading comprehension (Shanahan et al., 2010), word recognition skills in reading (Connor et al., 2009), writing skills and strategies (Graham et al., 2012; Granado-Peinado et al., 2023), math skills and concepts (Frye et al., 2013), and a variety of cognitive learning strategies (Hughes, 2011).

## Conclusions

Explicit instruction is a pillar practice in the refreshed HLPs for Students with Disabilities for good reason. Its status as an evidence-based practice, along with designation as an HLP, is unquestioned, but it is also core to the work of all educators. This one pillar practice and its component parts provide a roadmap for the design and delivery of instruction that would be appropriate in nearly any lesson, regardless of content area or grade level. In addition, this pillar practice can be used to achieve the implementation of many other practices (e.g., teach cognitive and metacognitive strategies) and curriculum (e.g., scripted reading programs).

## Resources to Implement Practices

| Online Resources | |
|---|---|
| CEEDAR Center | https://highleveragepractices.org/hlp-16-use-explicit-instruction |
| Explicit Instruction: Effective and Efficient Teaching | https://explicitinstruction.org/ |
| IN.gov | https://www.in.gov/doe/files/8-recommeded-approaches-resources.pdf |
| CAST.org | https://www.cast.org/products-services/resources/2002/ncac-explicit-instruction |
| High Leverage Practices Leadership Guides | https://highleveragepractices.org/hlp-leadership-guides |
| Webinar on HLP 16 | https://vimeo.com/mjk/eilecture?share=copy |
| Webinar on Cognitive Load and Relationship to HLP 16 | https://vimeo.com/mjk/cogload?share=copy |

| Pillar Practice HLP 7 | Establish a consistent, organized, and responsive learning environment. |
|---|---|

To build and foster positive relationships with students, educators should establish age appropriate and culturally aware expectations, routines, and procedures within their classrooms that are positively stated and explicitly taught and practiced across the school year. When students demonstrate mastery and follow established rules and routines, educators should provide age-appropriate positive specific feedback in meaningful and caring ways. By establishing, following, and reinforcing expectations for all students within the classroom, educators will reduce the potential for challenging behavior and increase student engagement. When establishing responsive learning environments, educators should build mutually respectful relationships with students by demonstrating respect, cultural awareness, and accepting and valuing diverse learners.

# Brief Description

Educators cannot make students learn or behave; we can, however, create environments to increase the likelihood they do both (Lewis, 2009). Building environments to promote academic and social, emotional, and behavioral success provides a foundation on which to scaffold all other high leverage practices. To start, consider challenges within a classroom including frequent types of unwanted behavior and when, where and under what conditions such behaviors are more likely to occur. For each unwanted behavior or context, what should students "do instead?" In other words, classroom environments should be designed to build and promote pro-social skills that increase social, emotional, and behavioral success that simultaneously increase academic engagement.

The first step in building a supportive classroom environment is to delineate social, emotional, and behavioral expectations more commonly known as classroom rules or expectations. Expectations should be stated positively, kept to five or fewer, and ideally align with school-wide expectations. Common classroom expectations might include being responsible, respectful, safe, or kind. Under each broad rule or expectation, identify specific examples of each that in essence are replacements for current patterns of problem behavior. For example, instead of telling students not to hit others, the teacher may focus on keeping hands, feet and objects to themselves.

The second step is to identify procedures and routines that will lessen the likelihood of unwanted

behavior and promote academic engagement. For example, an educator should define, teach, and practice clear routines for entering the classroom at the start of the day or class period. The educator should also define, teach, and practice procedures such as how to access teacher assistance or materials. By building student fluency in following routines and procedures, educators are increasing the likelihood of students displaying pro-social behavior and increasing time for instruction that would otherwise be spent correcting behavior.

Finally, educators should acknowledge student mastery, or progress toward mastery, of meeting expectations and following procedures and routines with positive specific feedback. Feedback should incorporate the class rules or expectations and provide specific behavioral examples (e.g., "Thank you, Sean, for being respectful and working quietly today, allowing yourself and others to learn").

# Critical Features and Connection to Explicit Instruction

Throughout all of the HLPs that are focused on student academic and social, emotional, behavior success is an emphasis on explicitly teaching skills and providing multiple opportunities to practice. The emphasis on teaching and practicing also applies to building supportive and responsive classroom environments. While developing expectations and routines, always ask, "Do the students have the prerequisite and requisite skills to be successful across all instructional and non-instructional contexts to meet expectations and

follow routines and procedures?" If the answer is "no" or "not sure," build time into the day to explicitly teach and practice needed skills. Initially, focus on skills that are replacements to the most common or frequently occurring problem behaviors and during times or activities that many students are frequently off-task or disruptive. Build on those successes and continue to teach, practice, and provide positive specific feedback across the school day and beyond the classroom to non-classroom settings (e.g., playground, cafeteria, common areas). The principles of explicit instruction noted earlier in this chapter are a great place to start.

As with all instruction, students must receive high rates of feedback to reduce errors and build fluency, especially during the acquisition phase of learning. Unlike academic tasks that result in a permanent product (e.g., tests, homework) that can be graded and include instructional feedback at a later time, social, emotional, and behavioral skills require feedback at the time they are displayed. Unfortunately, research continues to show that educators provide very low rates of positive specific feedback across the school day (Scott et al., 2011). In addition to increasing overall rates of feedback to build student skills, educators should also consider that feedback should be (a) developmentally appropriate (e.g., verbally acknowledging young students for all to hear while privately providing feedback to older students), (b) culturally relevant and respectful, and (c) given in a genuine, sincere manner, respectful of diverse student backgrounds. A strategy to prompt and remind educators to look for displays of appropriate social, emotional, and behavioral skills, versus focusing on problems, is to use some form of an acknowledgement system such as positive tickets or a group acknowledgment such as marbles in a jar. With any acknowledgement system, educators should (a) pair with verbal or non-verbal feedback, (b) not take or remove if student(s) display problem behavior, (c) not use level systems that indicate a student is not meeting expectations or displaying problem behavior (e.g., traffic lights, color wheel, projected point tallies that also display infractions), and (d) if paired with an outcome such as free time or using electronics during study time, it is important

to emphasize the skill mastery or progress, not the earned outcome. In addition, all feedback, corrective or positive, should be delivered in a respectful manner. Remember, the goal is to build a classroom environment that increases the likelihood of student success. Educators should always model the expectations for students by interacting with students in a sincere, genuine, caring, and responsive manner.

## Cultural Considerations

Establishment of an organized, respectful, and consistent learning environment is essential to students feeling supported in their cultural identity. An educator who is skilled at using explicit instruction and other approaches to teach students school and class expectations, uses feedback to foster and maintain relationships, and thinks of students as people worthy of investment will be able to establish this environment. It is through this investment where the educator recognizes the importance of cultural and linguistic backgrounds to students and their identities and how those identities lead to their interaction with the school and class community.

## Examples in Practice

### Elementary

*During literacy block, Ms. Kohn noticed an increase in off-task and disruptive behavior after two new students were added to her caseload. To differentiate instruction, Ms. Kohn set up small groups of students who rotated working directly with her or peer-led groups, and then facilitated independent work. Most of the disruptions were occurring during the small peer group time and included off-task talking, wandering around the classroom, and light horseplay. Building on key features of this HLP, she spent time at the start of the class period reviewing the expectations, including some re-teaching and student practice through role plays. Ms. Kohn then had the class practice transitioning to each of the instructional set ups and reviewed and practiced procedures for each (e.g., how to take turns during small*

*peer groups, how to access assistance during independent work). During the teaching, re-teaching, and routine and procedure practice, Ms. Kohn provided high rates of specific feedback for meeting expectations and simple prompts and opportunities to try again when errors were displayed. Following the teaching and practice session, Ms. Kohn provided multiple prompts at the start of each instructional grouping and her teaching assistant provided high rates of feedback for students engaged in small peer groups and independent work. Over the next few weeks, Ms. Kohn and her teaching assistant began to gradually fade out prompts and rates of feedback, returning to more natural reminders, prompts and feedback.*

### Secondary

*Ms. Powers was a first-year teacher who split her day between supporting students in a resource room and co-teaching in core general education classrooms. Prior to starting the school year, Ms. Powers met briefly with general education teachers who taught classes in which students on her caseload were enrolled. She asked each for their classroom rules or expectations and any important procedures or routines (e.g., when and where to turn in assignments, policy to make up missed work). Based on common expectations and routines, Ms. Powers developed a set of similar expectations and procedures within her resource room, explicitly taught and practiced expectations and procedures, and provided feedback through individual student self-monitoring systems she set up to track their progress in the resource room and their general education classrooms. Each morning, she would briefly check in with her students and do quick reviews of core expectations and procedures. When her students attended class time in the resource room, Ms. Powers asked the students to report on how they were doing in their general education classes and problem solve if there were issues. In addition, Ms. Powers worked with each student to set a goal (e.g., attendance, work completion, grade) for each of their general education classes and provided feedback and small incentives (e.g., time listening to music, working with a peer) for students who met their short- and*

*long-term goals.*

## Research Support

Educators nationwide report feeling underprepared to manage classrooms that include students with disabilities or students demonstrating problematic behaviors that escalate to bigger disruptions to the classroom learning environment (Baker, 2005; Coalition for Psychology in Schools and Education, 2006). In addition, classroom management is frequently discussed as an isolated practice. We argue that it includes a series of foundational educator behaviors that are directly related to effective academic instruction and self-efficacy (Cooper & Scott, 2017; Myers et al., 2017). As such, effective instruction increases the probability of student success across both academic and behavioral domains for students with and without disabilities. For example, Oliver et al. (2011) conducted a meta-analysis on classroom management practices. The combined effect for teaching prosocial behavior and preventing inappropriate behavior resulted in a strong main effect of .80 on reducing challenging behaviors such as off-task and aggression. In another study, increased rates of educator directed opportunities to respond was linked to increases in active participation and academic achievement (Christle & Schuster, 2003). In sum, investment in strong classroom management practices – often delivered using principles of explicit instruction – result in a consistent, organized, and responsive classroom environment.

A strong body of evidence has existed for decades supporting the foundational classroom practices of setting positive expectations, delineating procedures and routines, and providing positive specific feedback to promote academic engagement and reduce disruptive or interfering behavior (e.g., Good & Brophy, 1974; see Hattie, 2008, and Scott et al., 2017 for comprehensive reviews). The Institutes for Education Sciences' What Works Clearinghouse (2008) has indicated these and other foundational strategies have moderate to strong empirical support at the elementary school level. Likewise, research has

demonstrated that, with simple professional learning opportunities and performance feedback, educators can build fluency in developing and implementing these foundational environmental supports (Simonsen et al., 2020; 2014).

## Conclusion

As stated in the introduction, educators cannot force students to learn or engage in pro-social behaviors.  Educators can, however, build classroom environments to increase the likelihood of both. Developing rules or social, emotional, and behavioral expectations that are positively stated, paired with identifying and developing routines and procedures that maximize student learning time and reduce the potential for problem behavior are foundational components in creating environments that increase the likelihood of learning and behavioral success.  It is essential that expectations, routines, and procedures are not simply stated or posted; rather, all must be explicitly taught and practiced, and students must be provided with high rates of positive specific or simple corrective feedback to build mastery.  It is equally important that these foundational high leverage practices consider student age, prior learning history, and cultural or contextual background.  Educators should build positive learning environments with student input and best interest in mind and promote respect for all students.

# Resources to Implement Practices

| Online Resources | |
|---|---|
| Intentionally Intensify Classroom Practices to Support Students with Disabilities | https://www.pbis.org/resource/intentionally-intensify-classroom-practices-to-support-students-with-disabilities |
| Supporting and Responding to Educators' Classroom PBIS Implementation Needs: Guide to Classroom Systems and Data | https://www.pbis.org/resource/supporting-and-responding-to-educators-classroom-pbis-implementation-needs-guide-to-classroom-systems-and-data |
| Multi-Tiered System of Supports (MTSS) in the Classroom | https://www.pbis.org/resource/multi-tiered-system-of-supports-mtss-in-the-classroom |
| Effective Classroom Practices – Virtual learning modules and examples | https://pbismissouri.org/tier-1-effective-classroom-practices |
| HLP Video on HLP 7 | https://vimeo.com/mjk/behavior?share=copy |
| High Leverage Practices Leadership Guides | https://highleveragepractices.org/hlp-leadership-guides |
| Project FRaME website and PD Videos | https://vimeo.com/showcase/10868212 <br><br> www.buildtheframe.com |

**CHAPTER EIGHT**

# Embedded HLPs for Instruction in Behavior and Academics: What to Teach

Providing explicit instruction (HLP 16) is a gateway to teaching behaviors and expectations to students necessary to create an organized, consistent, and responsive learning environment (HLP 7). Mastery of these two Pillar Practices is essential for all teachers, regardless of grade level or content area. In addition, these practices are not solely for students with disabilities – they are relevant and effective for all students.

Once mastered, educators can use these skills as a foundation for implementation of many other practices. HLPs 9 (Teach Social Behaviors), 14 (Teach Cognitive and Metacognitive Strategies), and 21 (Teach Students to Maintain and Generalize New Learning Across Time and Settings) are three such practices. The following section provides an introduction to each practice and how it relates to Pillar Practices, notes considerations for implementation with students with intersectional backgrounds, highlights examples of implementation for elementary and secondary levels, reviews key research, and highlights external resources. We also note how these embedded HLPs connect to the *Collaboration* and *Data-Driven*

*Planning* domain practices and set the stage for the HLPs within the *Intensify and Intervene* domain. All HLPs stand alone but are more effective when implemented in strategic combination.

| What to Teach: Embedded HLPs |
|---|
| Pillar HLP 16: Use explicit instruction. |
| Pillar HLP 7: Establish a consistent, organized, and responsive learning environment. |
|     Embedded HLP 9: Teach social behaviors. |
|     Embedded HLP 14: Teach cognitive and metacognitive strategies to support learning and independence. |
|     Embedded HLP 21: Teach students to maintain and generalize new learning across time and settings. |

| Embedded HLP 9 | Teach social behaviors. |
| --- | --- |

Teachers should explicitly teach appropriate social (how to interact with others), emotional (how to regulate and express thoughts and emotions), and behavioral (how to manage myself) skills and behaviors. Skills should ideally be aligned with classroom and school-wide expectations. Similar to explicit instruction in academic skills, social, emotional, and behavior skills are taught through a tell (when to use the skills), show (provide examples and non-examples of the skill under specific social contexts), and practice (students engage in role plays) format. As highlighted throughout the HLPs, cultural inclusive pedagogies and practices (CIPP) is especially key when teaching social, emotional, and behavioral skills as students often learn these skills under different contexts. Students who master key social behaviors are ready to function within organized, consistent, and responsivelearning environments.

# Brief Introduction

Social skills are a fundamental building block to successfully navigating classroom environments. Skills such as appropriately interacting with peers and adults in the school setting, negotiating conflict, and communicating one's needs support both a student's academic success as well as their sense of belonging and well-being within their educational environment. Educators are responsible for identifying and explicitly teaching the pro-social behaviors they expect within their classroom, as well as providing on-going opportunities for practice and feedback on these skills. Although the content of social skills lessons may differ, the fundamentals of explicit instruction (HLP 16) can be used to design effective lessons that promote a responsive learning environment.

# Critical Features and Connections to Pillar Practices

Like explicit instruction in academic content areas, developing effective lessons for **s**ocial, **e**motional, and **b**ehavioral (SEB) skills begins with assessing a student's current knowledge and skill level along with acknowledging their intersectional identities and backgrounds. First, educators and partners (e.g., students, families, etc.) specifically identify shared contextually and culturally appropriate target skills or behaviors that the students require instruction in (e.g., conflict resolution, peer interactions). Because difficulties with social skills can often arise for a variety of reasons, educators must also identify the source of the challenge prior to beginning their instruction.

For example, if students do not know how to perform a targeted social skill, direct social skill instruction should be provided until mastery is achieved. However, if students already demonstrate the target skill but not at the desired rate or in appropriate circumstances (i.e. performance problem), then social skills instruction should focus primarily on prompting and reinforcing use of the target social skills consistently within the appropriate context. Using this information, instructors can create meaningful social skills groups based on common instructional needs.

Once the target skills have been identified with respect to students' intersectional backgrounds, SEB lessons follow the explicit instruction format common in academic instruction. First, educators should break larger, more complex skills into small, discrete steps that they teach students. Teachers should also teach specific cues or circumstances that might prompt the use of the target social skill. Following the teacher telling the students how and when to use the skill, they should then show students the skill through modeling and providing both examples and non-examples. For example, when teaching appropriate turn-taking, the educator may model waiting for a pause, then making a comment related to the last person speaking (example) as well as interrupting the speaker and/or making a comment that is not relevant to the topic of the conversation (non-example). Finally, educators should provide students an opportunity to practice the targeted skill. Throughout each lesson, educators should apply other effective instructional strategies such as prompting or providing positive, specific feedback for correct skills or steps demonstrated and constructive, corrective feedback should an error occur.

Following repeated instruction in a target SEB skill, educators are encouraged to continue to teach skills across the school day using the explicit instruction model. Providing continued instruction and prompting within the authentic context promotes generalization of the target skill (HLP 21). For example, prior to a transition, educators can remind ("tell") students about the routine and expectations, "show" them what it looks like by pointing out students who are demonstrating the skills, and "practice" by giving individual and group specific feedback. Likewise, if students are not following expectations during an academic lesson, the teacher can ask the students for an example of "being a learner" ("tell") during language arts class; asking students to demonstrate ("show") what "being a learner" looks like, and then prompting all with encouragement that they know what to do to "be a learner" and they will be looking for students who are displaying the class expectation ("practice"). On-going practice with specific feedback helps maintain skills within the natural environment until all supports can be faded.

By embedding SEB instruction, educators can support and maintain an organized, positive classroom environment (HLP 7). Critical communication skills, like asking for help or gaining attention appropriately, can facilitate important routines and limit disruptions in the classroom. Similarly, proactive training in emotional self-regulation provides students with tools to communicate their emotional needs effectively, thereby decreasing challenging behaviors in the classroom (McDaniel et al., 2016). Social skills training can easily be incorporated into part of the daily classroom routine, such as a classroom morning meeting, to encourage on-going instruction and review of foundational social skills needed for success in the classroom.

# Cultural Considerations

Unlike teaching a mathematical function where all agree (e.g., a + within the problem signals addition), SEB skills are, by definition, culturally, contextually, and developmentally dependent. Therefore, it is especially critical that SEB skills that are identified and taught using culturally inclusive pedagogies and practices (CIPP) are relevant to the individual. Educators are encouraged to focus on key SEB skills, such as being respectful, then include a range of examples drawn from students' local and cultural context. Student's families can be an excellent resource for teachers to provide meaningful examples and confirm that the skills and steps taught are aligned with their social and cultural norms. Additionally, educators should ensure the target skills are appropriate within the students' same age peer group. Considering the cultural inclusiveness of the skills taught will support the student's acquisition and generalization of the needed skills across all domains of their lives.

# Examples in Practice

## Elementary

*Mr. Ali teaches in an inclusive third-grade classroom. Since the beginning of the school year, Mr. Ali has noticed that Lyla has difficulties remaining on-task during group assignments, preferring instead to speak about her favorite topics like television shows or riding horses. After completing a short social skills screener, Mr. Ali identifies that Lyla may benefit from social skills instruction in communication, particularly turn-taking and staying on-topic. He assembles a small group of students with similar needs in his classroom and begins short, daily lessons in conversations. First, he explains each step of a conversation (initiating, active listening, making relevant statements, ending), then shows video models of same-age students engaging in appropriate and inappropriate conversations. The group discusses what went right or wrong in each scenario. Next, Mr. Ali lets Lyla and her group practice having conversations about topics that they each chose that were important to them. After each student demonstrates the steps of a conversation accurately, Mr. Ali gives them a small card to keep on their desk reminding them of the steps. He continues to provide reminders and feedback during group work to stay on-topic, and praises Lyla for her great progress.*

### Secondary

*Mx. Wells, an eighth-grade general education English teacher, has observed multiple conflicts within her second period class. Many of their students seem to have difficulty expressing their frustration with one another productively, resulting in inappropriate language, hurt feelings, and one physical conflict. Concerned, Mx. Wells decides to provide some class-wide instruction in conflict resolution. They begin their lessons by describing common conflicts that may arise between eighth-grade students, then providing a step-by-step guide to problem-solving during a conflict. To ensure the language is age-appropriate, they ask for student input on model language to use during conflict resolution. They provide both examples and non-examples and ask students to provide both from their own experiences. Finally, students rehearse through writing and performing scripts based on a given conflict. Following the lesson, Mx. Wells posts the steps to conflict resolution on the wall and continues to provide on-going feedback to students about overheard conflicts while referencing the poster.*

## Research Support

There have been hundreds of empirical studies conducted to date with respect to explicitly teaching social, emotional, and behavioral skills (Scott, 2023). While the literature base has clearly demonstrated that SEB skills can be taught and mastered using explicit instruction, the challenge remains to promote maintenance and generalization of these skills across authentic contexts (Gresham, et al., 2001). As underscored throughout the set of HLPs, teachers implement many HLPs in concert with one another to maximize the positive benefits of each.

A significant body of research supports instruction in social skills for all students (McLeskey et al., 2017; Nelson et al., 2022), demonstrating its effectiveness in improving various aspects of students' social functioning across ages and ability levels. Individual studies vary from evaluating the effectiveness of specific SEB interventions or curriculums (e.g., McDaniel et al., 2016; Vernon et al., 2022) to embedding the use of instructional technology (HLP 19) to aid in the development of target social skills (e.g., Kellems et al., 2020). In all, this body of evidence points to the overall effectiveness of explicit SEB instruction despite small changes in the curriculum or instructional medium.

In 2011, Durlak and colleagues made the case for universal, or school-wide, instruction and programming in social and emotional learning (SEL). Findings from their meta-analysis indicated that teachers and other school staff were able to deliver SEL instruction effectively and that programs were effective across settings and developmental levels. Further, Durlak and colleagues supported the strong connection between teaching social skills and explicit instruction as they found robust support for SEL instruction that included sequential, active, focused, and explicit (SAFE) practices.

Cipriano et al. (2023) provide a more recent review of school-wide SEL instruction, further reinforcing the need for systematic teaching, interventions, and programs focused on SEL and the need for components of explicit instruction within those programs. An important caution raised by Cipriano and colleagues is the need for educators to attend to implicit bias toward minoritized individuals, variations in norms across cultures, and students' experiences with trauma when providing SEL instruction.

# Resources to Implement Practices

| Online Resources | |
|---|---|
| Effectively Teaching Social Skills in ABA | https://howtoaba.com/teach-social-skills/ |
| Collaborative for Academic, Social, and Emotional Learning [CASEL] | https://casel.org |
| Positive behaviour support: Explicit teaching of social skills (New South Wales Australia Department of Education) | https://education.nsw.gov.au/content/dam/main-education/teaching-and-learning/professional-learning/pre-service-teacher-resources/Positive_Behaviour_Support_-_Explicit_Teaching_of_Social_Skills.pdf |
| **Books and Journal Articles** | |
| Taylor, J. C., & Riden, B. S. (2021). Practices strategies and considerations to promote maintenance and generalization. *Beyond Behavior, 30(2), 72-84.* | |
| Harkins Monaco, E. A., Stansberry Brusnahan, L. L., Fuller, M. C., & Odima Jr., M. (Eds.) (2024). *Disability, intersectionality, and belonging in special education: Socioculturally sustaining practices.* Rowman and Littlefield Publishing, Inc. | |

| Embedded HLP 14 | Teach cognitive and metacognitive strategies to support learning and independence. |
|---|---|

Teaching cognitive and metacognitive strategies promotes learner self-regulation and independence. Explicit instruction in cognitive and metacognitive strategies begins with the recognition of challenging learning tasks that require a strategic approach and moves to systematic instruction, multiple opportunities for student practice with feedback, and guidance related to using the strategy effectively in multiple settings and situations. Teaching and learning cognitive and metacognitive strategies involve not only understanding content but also using cognitive processes to solve problems, regulate attention, organize thoughts and materials, and monitor one's own thinking. Cognitive and metacognitive strategy instruction is delivered in stand-alone lessons or integrated into lessons on academic content through modeling and explicit instruction. Students learn to monitor and evaluate their performance in relation to specific goals and make necessary adjustments to improve learning.

# Brief Description

Strategies are "a heuristic that supports or facilitates the learner" in using higher order thinking or skills (Rosenshine & Meister, 1992, p. 26). Students need to learn to apply a strategy to a problem, as well as how to select and monitor the effects of using that strategy (Newell, 1990). Cognitive strategies (e.g., making predictions, summarizing, apply grammar rules, making meaning from context) are ways of solving a problem, while metacognitive strategies (e.g., self-management and self-regulation, planning and monitoring) are ways of monitoring the effectiveness of the strategy. Strategies help students learn how to self-monitor learning or behavior, recognize problem areas, create and execute solutions, and evaluate success (Montague & Dietz, 2009).

Some students benefit from explicit instruction in cognitive and metacognitive strategies in academic performance (Vaughn & Wanzek, 2023). Cognitive strategies such as elaboration, organization, inferencing, and summarization support learners as they connect new information to prior knowledge (Welter et al., 2022). Metacognitive strategies are often thought of as the processes and approaches learners use to regulate their learning and using these types of strategies require that learners recognize their own strengths and areas for improvement, think about and choose effective approaches, monitor and adapt those approaches, and reflect on their effectiveness (Pressley, 2002). An example is the Paraphrasing

Strategy (Schumaker et al., 1984), which includes the mnemonic **RAP**. You **Read** a paragraph, **Ask** yourself what the paragraph is about, and **Put** what you read in your own words. The scaffold of the cognitive strategy can help students to remember the steps and be successful.

A student using an inefficient or non-strategic approach to reading may read through the text without using a comprehension strategy to make meaning from text, skip words they do not understand, or simply reread difficult text rather than attempting another way to process. The result of not using a cognitive strategy (e.g., finding the main idea) can be poor comprehension of text and the result of not using a meta-cognitive strategy (e.g., self-monitoring) can be the student not realizing they did not make adequate meaning from the text. In contrast, a student that searches for the main idea as they read and monitors learning throughout will be more successful. Replacing ineffective and inefficient approaches with evidence-based strategies provides students with skills they can generalize to other classrooms and over time. Cognitive strategy instruction is a way to teach students how to learn (Jitendra et al., 2011) and teachers can explicitly teach these strategies to students (Vaughn & Wanzek, 2023). Strategies exist for mathematics, writing, reading, self-monitoring behavior, and numerous other domains.

# Critical Features and Connection to Pillar Practices

When teaching cognitive and metacognitive strategies to students, teachers must have extensive knowledge about individual strategies, teach using principles of explicit instruction, and help students generalize knowledge across settings and tasks. Educators should start by analyzing content that they are teaching, as well as the specific strategies targeted during lessons. During this process, anticipating where potential challenges will arise for specific students, in terms of the content being learned, as well as the strategy being utilized is important. The strategies should be broken into teachable steps so that students can learn each step of the process.

When students do not naturally utilize strategies in their learning, one of the most critical steps is for an educator to model and *think aloud* as they demonstrate how to utilize the strategy. Simply explaining the strategy is not enough; therefore, educators should make thinking clear, so that students can observe the thought processes that go into strategy use. For example, when using the cognitive strategy of making a prediction, a teacher should not just say "I predict that Tyler is going to a birthday party." If the student does not know how the educator came to that prediction, simply hearing the prediction will not be helpful for their learning. Instead, the educator can model the steps they went through to actually use the strategy and make the prediction by drawing the student's attention to background knowledge, clues from the text, and other information, and explain their thinking. Once the educator has demonstrated the strategy, they can lead the student through guided practice, where they prompt the student to engage in its use. As students demonstrate success, the educator can reduce supports to allow students to use the strategy independently.

The last component is for educators to support continued independent use of the strategy and long-term use in and outside of the setting in which it was first learned. To do this, educators provide numerous opportunities to practice across content areas. Additionally, educators should provide instruction about when and where to use each strategy at first, but slowly reduce their direction to allow students to begin to select an appropriate strategy on their own. Finally, continuing to assess student success, cueing strategy use, and providing reteaching and practice as necessary is critical. Please read more about generalization in HLP 21.

# Cultural Considerations

Teaching strategies to students present numerous opportunities to implement culturally inclusive pedagogies and practices (CIPP). As educators consider the unique characteristics of students such as intersectional diversity, the strategy selected for their learning and use can be a reflection of their identities. Many metacognitive strategies like the Paraphrasing Strategy (Schumaker et al., 1984) have a fun, easy-to-remember mnemonic for student remembering and activation of skills. As students learn to "RAP" an educator could show pictures of the student's favorite rap artist, or have students create a rap poem about the strategy being used. The opportunities are limitless.

# Examples in Practice

### Elementary

*Mr. Tyler, the school principal, is concerned about one of his new teachers, Mr. Smithers. As Mr. Tyler reviews Smithers' students' 5th grade benchmark data, he can see students are struggling to make clear arguments with well-structured sentences and paragraphs. When Mr. Tyler asks Mr. Smithers about the strategies he is teaching students to use in their writing processes, he is confused and replies: "I am having them brainstorm on their papers before writing." Mr. Tyler decides he needs to introduce Mr. Smithers to several systematic, explicit writing strategies, notably Self-Regulated Strategy Development (SRSD). SRSD is recognized by the What Works Clearinghouse as an effective practice (https://ies.ed.gov/ncee/wwc/ interventionreport/680), pairs with specific writing*

*strategies that Mr. Smithers' students desperately need, and can be used across writing genres. Mr. Tyler assigns Mr. Smithers an instructional coach, who begins by asking Mr. Smithers to complete the IRIS Center's module on SRSD (https://iris.peabody.vanderbilt.edu/module/srs/) and the IRIS module on the POW+TREE writing strategy (https://iris.peabody.vanderbilt.edu/module/pow/). Mr. Tyler also connects Mr. Smithers with the school psychologist, Dr. Pryor, who has a wealth of information to share around lesson planning and delivery.*

### Secondary

*Mr. Gallegos is an 11th grade special education teacher. He is co-teaching with Mrs. Lovejoy in a social studies course. In their collaborative meeting, Mrs. Lovejoy notes the poor comprehension of students with and without IEPs when reading historical documents, and other grade appropriate passages. The lack of comprehension is leading to poor test scores and limited capacity for students to have discussions as expected at this level. Mr. Gallegos mentions a strategy called PACT (Promoting Adolescents' Comprehension of Text, https://meadowscenter.org/project/promoting-adolescents-comprehension-of-text/). This strategy and corresponding instructional approach uses principles of explicit instruction, flexible groupings, data-driven progress monitoring, and goal setting to support outcomes. Mrs. Lovejoy is interested, but worried about how much time an intervention like this might take to learn. Mr. Gallegos assures her that the materials created by groups like the Meadows Center from the University of Texas at Austin and the University of Maryland provide effective and efficient lessons to support implementation of their evidence-based practices related to PACT and other strategy instruction in content material. So instruction in the comprehension strategies does not have to be separate from instruction in the content material.*

# Research Support

A recent analysis (Nelson et al., 2022) reports that the body of work examining teaching cognitive and metacognitive strategies includes 365 studies, 19 meta-analyses, and, though six studies show no-to- small impact on learning, the impact of most studies were noted as having a moderate to large impact on student learning. More specifically, recent studies provide evidence of positive effects on students' writing skills, use of writing conventions, and written expression (Gillespie & Graham, 2014; Schumaker et al., 2019); math concepts and skills (Lee et al., 2020; Lein et al., 2020); reading comprehension (Sanders et al., 2019); and self-management (Harrison et al., 2020), to name a few.

Two prominent models, Self-Regulated Strategy Development (Graham et al., 2017) and the Strategic Instructional Model (Hock et al., 2017), have undergone significant research across multiple tasks and subject areas. Both models emphasize a similar explicit instruction sequence that is necessary for effectively teaching, learning, and using strategies. Providing such instruction to students addresses inequities in classrooms as it acknowledges that, while some learners are adept at taking strategic approaches to complex tasks and require limited prompting from educators to do so, many learners are not.

# Resources to Implement Practices

| Online Resources | |
| --- | --- |
| Meadows Center at the University of Texas at Austin resources related to PACT Plus intervention | https://meadowscenter.org/project/pact-plus/ |
| SRSD Online Professional Development service | https://srsdonline.org |
| IRIS Center module on SRSD | https://iris.peabody.vanderbilt.edu/module/srs/ |
| IRIS Center module on POW+TREE Strategy | https://iris.peabody.vanderbilt.edu/module/pow/ |
| HLP video on HLP 14 | https://vimeo.com/mjk/strategy?share=copy |

| Embedded HLP 21 | Teach students to maintain and generalize new learning across time and settings. |
|---|---|

When students with disabilities learn new information or skills but are unable to apply them to novel situations or settings, the utility of that instruction must be called into question. Educators and IEP teams carefully consider the various times, places, and situations in which students' skills and knowledge might be needed and providing explicit instruction and other opportunities to practice in those situations. Educators use feedback within authentic learning settings to help students develop capacity to generalize their learning and skills.

# Brief Description

Generalization is when a person performs a specific learned behavior across multiple settings and contexts. That is, we know a new behavior has been generalized when it occurs in a setting other than the original setting in which it was taught. One of the most essential outcomes for students with disabilities is their readiness to apply knowledge and skills in settings beyond K-12 school. However, prior to graduation, students should also demonstrate capacity to use skills and knowledge acquired in one setting and then transfer to another. While many students figure out on their own that they can and should transfer skills from one setting to another, many students with disabilities do not. This is particularly true for students with extensive support needs. Therefore, HLP 21 is a critical addition to the *Instruction in Behavior and Academics* domain. This HLP also reflects the same cross-practice web noted throughout this section – Collaborative teachers and families identify specific needs for students with respect to culturally inclusive pedagogies and practices (CIPP) and generalizing knowledge and skills, they use data to measure present level of performance, set goals and systematically design plans, identify key adaptations that may be needed, and scaffolds which may or may not include technology, and then go about the business of explicitly teaching and reinforcing students for their efforts.

# Key Features and Connections to Pillar Practices

Generalization and maintenance of skills is an effective practice designed to be present in a range of educational and social settings with various instructors (McLeskey et al., 2017). Because of this design, educators must plan for how they will use the instructional strategies presented previously to promote generalization and maintenance strategies in a variety of situations and settings. For behavior, students must be able to generalize and maintain learned skills, as culturally appropriate, across settings such as school, home, and work. Students are often taught various behavior strategies in either a group or individual setting to address a particular need in a particular context (e.g., coping skills for anxiety experienced in the classroom, social skills at lunch, etc.). For example, a student may struggle with communicating with educators. The educator can provide explicit instruction on various communication strategies, opportunities to practice these strategies, and give feedback in her classroom (Taylor & Riden, 2012). However, the student also needs authentic experience applying these skills in nonacademic settings like lunch or transition between classes to maximize the use of the learned coping strategies with various educators and adults throughout the school day and out in the community.

Maintenance refers to a student's ability to independently perform a skill over a period of time (Alberto & Troutman, 2013). A student's ability to maintain a skill is important in the process of learning, as students continue to add new knowledge to already acquired knowledge (Martin & Pear, 2019). Maintenance occurs when students are able to retrieve knowledge or use skills in the absence of prompting, reinforcement, or ongoing instruction. When educators consider maintenance throughout the continuum of the learning process (e.g., planning, teaching, assessing), they are able to promote maintenance as they remove the scaffolds

for the behavior (Alberto & Troutman, 2013; Miltenberger, 2016).

To promote generalization and maintenance in academics, teachers must make consistent and explicit connections with the learned content to new tasks. Many times, new skills explicitly taught in reading or math can help a student be successful in other subjects like science or social studies. For example, a learned comprehension strategy can be taught in reading and practiced with reinforcement and feedback when reading historical documents in social studies or lab reports in science. For both behavior and academics, generalization and maintenance instructional methods can be delivered individually or to a whole or small group. These instructional decisions should be based on CIPP and on student and/or classroom learning needs.

# Cultural Considerations

In order to successfully promote generalization, educators need to incorporate CIPP. This is in part because students from varying intersectional backgrounds may have unique ways of interacting, problem-solving, or even navigating social situations, which can significantly affect how students apply their skills and knowledge across settings. This understanding will help students develop capacity to generalize their learning and skills more effectively. Educators can assess the success of skill generalization and decide on adjustments to their teaching approaches for enhanced cultural inclusiveness by gathering and analyzing data. Therefore, by integrating CIPP into their teaching strategies and using data-based decision making, educators can more effectively facilitate the generalization of skills and knowledge to ensure that students are equipped to apply their learning in a diverse range of contexts.

# Examples in Practice

### Elementary

*Mr. Williams, a first-grade teacher, is working with a student, Mia, on appropriate social greetings. Mr. Williams introduces her to various greetings through engaging activities like role-playing and puppet shows during one-on-one sessions. As Mia shows success in these controlled interactions, he expands her practice to include greetings with different school staff and her peers. Mr. Williams monitors her progress closely, adapting his methods and collaborating with her grandparents to provide feedback in response to her progress. Over time, Mia starts to initiate greetings independently, participate more in class, and form new friendships, marking a significant step in her social development. This gradual and supportive approach enabled Mia to not only learn social greetings in the classroom but also generalize these skills across various school environments and social interactions, including fostering real-world application.*

### Secondary

*In her ninth grade English language arts class, Mrs. Nguyen teaches students how to read passages and select relevant information for corresponding test questions. This strategy involves reading the passage and underlining important information for each test question. Additionally, Mrs. Nguyen instructs students to circle the main idea. Mrs. Nguyen immediately sees an uptick in practice item scores with students implementing this test taking strategy. After students demonstrated success with this strategy in her class, Mrs. Nguyen thinks it would be helpful to the rest of the ninth grade team to have students practice this test taking strategy in their other classes. She shares the strategy with the other ninth grade teachers. As a team, they decide to systematically start introducing it across all the classes. By sharing and collectively implementing this test-taking strategy across different ninth grade classes, Mrs. Nguyen and her colleagues are fostering an environment where students can generalize and apply essential skills across various subjects, enhancing their overall learning and academic performance.*

# Research Support

The ability to maintain and generalize newly acquired knowledge and skills requires explicit

instructional approaches that are specifically designed and implemented to address this need (Markelz et al., 2019).  Effective instruction that promotes maintenance and generalization includes intentional and deliberate utilization of evidence-based strategies during lesson planning, teaching, and assessment (Snyder & Cagliani, 2022). Proactively addressing how students use new skills and apply them in a variety of situations ensures all students have an opportunity to maintain and generalize learning across time and settings for improved outcomes.

Instructional methods that lead to maintenance and generalization include maximizing reinforcement through instructional feedback, response prompting, training loosely, and providing opportunities for repetition of trials especially when used in conjunction with authentic experiences or within natural environments (Markelz et al., 2019).  Educators can build these strategies into the instructional process beginning with planning and with assessment in mind (Alber-Morgan et al., 2023).  Maximizing reinforcement through instructional feedback increases learning of new knowledge and skills. Specific feedback that is coupled with praise and other rewards have been shown to maximize maintenance and generalization (Wisniewski et al., 2020). Educators can engage in response prompting which are systematic instructional approaches built on principles of applied behavior analysis (Collins,

2012; Collins et al., 2018). When implementing response prompting, educators provide a cue (e.g., pencils down if you are ready to…), instructional stimulus (e.g., directions, modeling, scaffolding), response, and consequence (e.g., praise, reward) (Collins et al., 2018). As students engage in the desired instructional behavior, the prompts fade. Teaching loosely promotes generalizing by varying the stimuli that prompts the student to engage in the behavior. For example, during phonics-based reading instruction educators can explicitly teach students how to decode words in one setting and prompt the use of decoding strategies in other settings and with other instructors (e.g., decode unfamiliar words in science, social studies, or other content areas) (Alber-Morgan et al., 2023). Another strategy educators can implement to promote maintaining and generalizing is providing opportunities for repetition of trials especially when used in conjunction with authentic experiences or within natural environments. As students gain new learning, educators can provide multiple opportunities for students to practice their new learning in a variety of contexts. Repetition is an effective instruction and intervention method for promoting maintenance and generalization and advances the student's ability to become more proficient in the skill (Adroin et al., 2018; Skinner & Daly, 2010).

## Resources to Implement Practices

| Online Resources | |
|---|---|
| AFIRM Naturalistic Intervention Module | https://afirm.fpg.unc.edu/naturalistic-intervention |
| Cognitive Connections website | www.Efpractice.com |
| HLP Leadership Guides | https://highleveragepractices.org/hlp-leadership-guides |
| Behavior Nation provides resources including videos on generalizing behaviors in various settings | https://www.behaviornation.com/blog/enhance-your-childs-skills-in-various-settings-with-generalization-and-maintenance |

# Conclusion for Embedded "What to Teach" Practices for Pillar Practices

Teaching is tough business. Teaching multiple students with intersectional needs can be a challenge for teachers. The HLPs from the *Instruction in Behavior and Academics* domain provide teachers with actionable tools to support their difficult work and help bring about success for students. Specifically, the two Pillar Practices, **HLP 16**: Use Explicit Instruction, and **HLP 7**: Establish a Consistent, Organized, and Responsive Learning Environment, are core to all teachers' repertoires. The use of these two pillar practices pervades the rest of the HLPs in the "What to Teach" and "How to Teach" sections.

Many students need explicit instruction in new social behaviors not currently in their repertoire of skills. Educators need to plan specific lessons around social behaviors and use strong instructional practices to do so. The two pillar practices for this domain, HLPs 16 and 7 set the stage for success in learning social behaviors. HLP 7 helps educators know what is needed to create an organized and coherent learning environment, without which no learning can be expected, and HLP 16 provides the how of what the lesson should look like and be implemented.

Teaching students to use cognitive and metacognitive strategies (HLP 14) requires use of explicit instruction (HLP 16), and an organized and predictable learning environment (HLP 7) where available cognitive resources can be dedicated to the learning task at hand. Teaching students to use various strategies helps them to unlock their potential and begin to understand specific or discrete bits of information learned in one setting within the school have utility elsewhere. One of the biggest gifts educators give to students - helping them understand why we have them learn seemingly random information at times - allows them to apply that knowledge and attain more knowledge later in life (HLP 21). This is especially true for students with extensive support needs and the adaptive behaviors they need for interacting with their world.

Similarly, without explicit attention and guidance provided to students around the need to generalize new knowledge and skills across settings, much of what we do in education is not very valuable. Explicitly teaching students using the full lesson process laid out by Archer and Hughes (2011), done so within coherent learning environments where students can focus on the task at hand, is the pathway to success. HLP 21 is often ignored in professional development and educator preparation courses in favor of seemingly more core practices like HLP 16, but it deserves far more attention from researchers, teacher educators, educators, and family members.

In summary, if there was a magic set of practices that would "work" in every situation and be guaranteed to work for all students, books like this would be short and unnecessary. Unfortunately, the best practices we do have can still fall short from time to time given the complex realities of schools and individual needs of students with disabilities and others who struggle. This complexity is why the *HLPs for Students with Disabilities* are so essential – and important – to use the practices in combination with one another, culturally inclusive pedagogies and practices (CIPP), and other effective evidence-based practices on an ongoing basis. Use of explicit instruction and practices associated with creating an organized and coherent classroom are a good starting place and as close to magic beans as we've got for many students. From there, educators must commit to teaching key culturally appropriate social behaviors (HLP 9), arming students with strategies for various tasks (HLP 14) and spending instructional time supporting students' deployment and implementation of skills and knowledge across settings (HLP 21) as appropriate. Without such a coherent plan, students with substantial needs may be stuck in the same patterns with little opportunity for progress.

**CHAPTER NINE**

# Embedded HLPs for Instruction in Behavior and Academics: How to Teach

At their inception, HLPs were intended to be foundational elements of an educator's repertoire (McLeskey et al., 2015). The embedded HLPs noted in this section fit this description perfectly. Educators who have mastered principles of explicit instruction and use them to create organized and effective learning environments for behavior and academics also need to consider unique adaptations students may need to succeed (HLP 13), introduce scaffolded supports to bridge current functioning level to expected performance (HLP 15), deliver instruction for academics or behavior skills in groupings of various sizes (HLP 17), keep students engaged enough so that learning is possible (HLP 18), use assistive or instructional technology (HLP 19), and deliver feedback to students that supports their growth in behavioral (HLP 8) and academic (HLP 22) domains. In sum, each of these practices interacts with or supports the implementation of explicit instruction and the creation and maintenance of an organized learning environment. Each practice also stands on its own and is foundational to numerous other practices and elements of educators' jobs.

> **How to Teach: Embedded HLPs**
>
> Pillar HLP 16: Use explicit instruction.
>
> Pillar HLP 7: Establish a consistent, organized, and responsive learning environment.
>
> Embedded HLPs 8 and 22: Provide positive and constructive feedback to guide students' learning (HLP 22) and behavior (HLP 8).
>
> Embedded HLP 13: Adapt curriculum tasks and materials for specific learning goals.
>
> Embedded HLP 15: Provide scaffolded supports.
>
> Embedded HLP 17: Use flexible grouping.
>
> Embedded HLP 18: Use strategies to promote active student engagement.
>
> Embedded HLP 19: Use assistive and instructional technologies.

| Embedded HLP 13 | Adapt curriculum tasks and materials for specific learning goals. |
|---|---|

Adaptations are changes, which can take many forms, including accommodations and modifications. To adapt tasks and materials, educators may prioritize content coverage, simplify task directions, alter the difficulty level of material, reduce the amount of material provided, highlight relevant information, or present information using multiple and different examples. Educators make decisions about adapting tasks and materials based on the stated learning goals, the student's individual needs, and the criteria for student success. Educators should identify areas within their explicit instruction to design and incorporate adaptations. In addition, there are opportunities for educators to incorporate culturally inclusive pedagogies and practices into their teaching.

# Brief Description

Adaptations are changes educators make to their teaching or assignments, in collaboration with the IEP team and other partners, to help ensure student success. Adaptations are included on every student's IEP through accommodations and modifications, usually with respect to assignments and assessments. However, this HLP goes beyond the IEP as there are many ways general and special educators, as well as other partners, can support students by implementing adaptations. This embedded HLP description includes critical features of making adaptations, ways in which the practice connects to explicit instruction, a description of accommodations and modifications, examples, culturally inclusive pedagogies and practices (CIPP), implementation at elementary and secondary levels, research support and external resources.

# Critical Features and Connections to Pillar Practices

As a critical component of explicit instruction, educators must be able to adapt curriculum tasks and materials so that students with disabilities can meet the stated learning objectives. Special educators may make adaptations by highlighting relevant information, changing task directions, and adjusting content amount and depth (Mastropieri et al., 2024). Material adaptations may include:

- making substitutions for text material (e.g., audiotaping content, reading content aloud, using other media, working individually with students),

- simplifying text (e.g., making abridged versions, providing outlines and summaries, using multilevel supports), and

- highlighting key concepts and information (e.g., previewing content, developing study guides, summarizing or reducing content), or

- adapting learning objectives (e.g., targeting and prioritizing learning objectives critical to curriculum content).

Task adaptations may include:

- providing and teaching guided notes for notetaking during whole group instruction,

- providing and teaching graphic organizers during whole group instruction, or

- reducing the number or types of practice opportunities assigned during independent practice.

Educators make adaptation decisions because they monitor student performance closely either through formal (e.g., assessments, evaluations) or informal (e.g., observation, opportunities to respond) means (Leatherman & Wegner, 2022; Mason et al., 2022). With a clear understanding of the learning objectives and of student intersectional characteristics, educators can predict student need(s) while designing explicit instruction lessons and include adaptations at any part of the modeling, guided practice, and independent practice stages of the lesson. In addition, requiring frequent responses of students by providing multiple opportunities to respond during instruction and close monitoring of their performance allows educators to make "on the spot" adaptations such as including additional, simplified examples; reducing the complexity of the directions or material presented; highlighting critical concepts; or providing additional,

individualized instruction when students are not meeting demands during a lesson.

Two specific types of adaptations implemented according to a student's IEP are accommodations and modifications. Modifications are adaptations made to the level of curriculum through instruction and/or assessment (Hollenbeck et al., 1998). Accommodations are adaptations that help promote access and assist students in overcoming barriers caused by their disabilities (IRIS Center, 2023). Accommodations occur as changes across four different categories–setting, timing or scheduling, presentation, and response (Thurlow & Bolt, 2001). In short, modifications are adaptations that alter what a student learns, and accommodations are adaptations that alter how a student learns.

Accommodations and modifications can sometimes appear similar in practice despite the distinction of modifications altering the level of content while accommodations adjust the level of accessibility. However, educators frequently misconstrue accommodations as modifications (Ysseldyke et al., 2001). Given their resemblance in implementation, it is crucial for educators to grasp the subtle difference: modifications involve changing the content level, whereas accommodations are about enhancing the accessibility level. Educators working with students with disabilities must comprehend and be ready to implement both adaptations (accommodations and modifications) to support students with disabilities. Further, educators should gather data on student performance to assess the effectiveness of the accommodations or modifications themselves as well as in tandem with other adaptations to prevent the ongoing use of ineffective adaptations.

# Cultural Considerations

In addition to individual needs, educators should consider CIPP aspects when deciding on and implementing adaptations. The most successful strategies for students from intersectional backgrounds are likely to emerge from a collaboration of varied viewpoints, coupled with a thorough exploration of concepts surrounding disability and cultural diversity within their complete sociocultural and historical contexts (Klingner & Edwards, 2006). That is, educators should collaborate with and welcome different viewpoints from students and partners who have intersectional differences in order to ensure that the adaptations that are decided on or being implemented are not only responsive to individual needs, but appropriate within cultural parameters. Additionally, educators should also consider socioeconomic factors and how they may implicate adaptation decisions. For example, Lovett (2021) noted that students from more privileged backgrounds are more likely to receive accommodations, even with absence of evident need, rather than students from less privileged backgrounds. Thus, it is imperative for educators to integrate a holistic approach, taking into account socioeconomic backgrounds and intersectional nuances, to ensure that adaptations are equitable and effective in addressing the unique needs and circumstances of each student.

# Examples in Practice

### Elementary

*Ms. Chen is a fourth-grade general education teacher who teaches social studies and science. Two of her four class blocks include identified students with disabilities who are learning alongside their peers without disabilities. In her two inclusive class blocks, the majority of students with IEPs and 504 plans have the preferential seating accommodation. Preferential seating is used for some students who require support for attention needs to promote focus. For other students who require more individualized support, they may need to be placed closer to the point of instruction. Considering these individualized needs and the prevalence of this accommodation in her inclusive classes, Ms. Chen decides to allow all students to choose their seats in her classroom. She acknowledges that, with her guidance, flexible seating will allow the students with the preferential seating accommodation to be able to select the seat that will respond best to their individual needs, while students who do not have this accommodation can also exercise this choice.*

*By embracing flexible seating, Ms. Chen not only addresses the specific needs of students with IEPs and 504 plans but also fosters an inclusive and adaptable learning environment beneficial for all her students.*

### Secondary

*Mr. Hernandez, a tenth-grade history teacher, uses text-heavy presentations and lectures during most class sessions. Across his classes, he has several students who have a visual accommodation on their IEPs. Given this, Mr. Hernandez decides to incorporate more visuals, such as pictures, videos, and diagrams, into his lecture slides and reduce the amount of text on each slide. By making this adaptation, Mr. Hernandez is not only considering the individual needs of the students with the visual accommodation, but also is promoting focus and reducing cognitive load for all students as he lectures. Mr. Hernandez's decision to enhance his lectures with visuals and minimize on-screen text not only accommodates students with specific needs but also enriches the overall learning experience, aiding in focus and comprehension for the entire class.*

## Research Support

Adapting curriculum tasks and materials for specific learning goals is well known to special educators given that accommodations and modifications are included in IEPs. This is a broad HLP in that adaptations take on many forms depending on the instructional or testing situation, age and grade level of the student, and other factors. In addition, many instructional adaptations could also be considered scaffolds, which is HLP 15 Provide Scaffolded Supports. There is shared language and evidence between HLP 13 and HLP 15. In this brief review, the focus is on research support for assessment adaptations. Research supporting the use of instructional adaptations is in the forthcoming section for HLP 15.

Teachers make numerous adaptations to assessment and regular learning situations and environments to support positive student outcomes. Over the past 20+ years, Thurlow and her colleagues have led the way in understanding assessment accommodations' prevalence and effectiveness for students with disabilities (see Thurlow & Bolt, 2001; Thurlow & Kopriva, 2015). Others (e.g., Witmer et al., 2015) have explored the impact of adaptations on student performance across a range of instructional and testing settings.

Thurlow and Kopriva (2015) and others (e.g., Witmer et al., 2015) note research support for individual accommodations is more prevalent for assessment than instruction. A key reason for this is individual accommodations used in classroom learning situations can be difficult to evaluate given their integration into other instructional approaches and settings (Gregg, 2012). This is similar to measurement issues with other HLPs such as HLP 17 Use Flexible Grouping and HLP 18 Use Strategies to Promote Active Student Engagement. This does not mean these practices should not be used or considered with caution. Instead, they are examples of the many practices that are essential to an educator's repertoire that do not lend themselves to being studied individually by research methods such as randomized control trials (McLeskey et al., 2017). Shriner and Ganguly (2007) referred to the "often untidy" nature of accommodations and how researchers have a difficult time evaluating the impact of any given tool or approach, given the sizeable number of students with various disabilities spread across the country's content areas, grade levels, and instructional situations.

# Resources to Implement Practices

| Online Resources | |
|---|---|
| National Center on Educational Outcomes list of references for accommodations and modifications | https://nceo.info/Resources/bibliographies/accommodations/bibliography |
| Accommodations toolkit from National Center on Educational Outcomes | https://publications.ici.umn.edu/nceo/accommodations-toolkit/introduction |
| Understood.org resource on use of accommodations and modifications | https://www.understood.org/en/articles/how-to-use-accommodations-and-modifications-in-the-classroom |
| IRIS Module on Accommodations | https://iris.peabody.vanderbilt.edu/module/acc/cresource/q1/p02/ |
| HLP video on HLP 13 | https://vimeo.com/mjk/adaptations?share=copy |
| HLP Leadership Guides | https://highleveragepractices.org/hlp-leadership-guides |

| Embedded HLP 15 | Provide scaffolded supports. |
|---|---|

Scaffolded supports provide assistance to students so they can complete tasks that they cannot yet do independently and with a high rate of success. Educators select powerful visual, verbal, and written supports; carefully calibrate them to students' performance and understanding of learning tasks; use them flexibly; evaluate their effectiveness; and gradually remove them once they are no longer needed. As a critical partner to explicit instruction, providing scaffolded supports requires understanding student characteristics, breaking down complex skills and strategies into smaller instructional units, and identifying ways to provide scaffolds during supported practice. Some supports are planned before lessons, while some are provided responsively during instruction. Scaffolds can be technology-based. Educators should work with the IEP team to identify which scaffolds are needed, use data to evaluate impact, and decide when they are no longer needed.

# Brief Description

Scaffolded supports fall within Vygotsky's zone of proximal development (1978)—the distance between what a child can understand and do independently and what they can understand and do with assistance. These supports represent a pedagogical approach that recognizes the diverse learning needs of students, offering them structured assistance as they navigate the complexities of new concepts and skills. Like scaffolding used in the construction context to support workers as they build new buildings, educational scaffolds are provided to students until they can independently and confidently build new knowledge. This practice requires a careful balance of offering guidance to prevent frustration in students while also gradually diminishing support as students gain proficiency.

As a teaching approach, scaffolded supports provide temporary and structured assistance to students as they interact with new concepts or skills. Educators use effective scaffolded supports for student learning. To do so, the educator must fully understand the task as well as students' changing understanding and proficiency. This requires the educator will thoroughly assess student performance, match it to the learning goals, and design the supports to help the student achieve predetermined goals. Critical to the use of scaffolded supports is the idea that the scaffolds will ultimately be removed so the student can complete the task independently.

Scaffolded supports help reduce the cognitive load impacting students during various tasks. When presented with a new concept or skill, students often experience a high level of cognitive load on their working memory (Sweller et al., 2011), the process in the brain for moving information from an input (e.g., hearing or visual) to long-term memory. Scaffolded supports help students by breaking down complex tasks into smaller, more manageable components. Scaffolds also provide different options for completing tasks that removes a particularly challenging element of a task. An example is virtual manipulatives in a mathematics class or a graphic organizer used to support writing of a paragraph or essay. Often, this allows students to focus on fewer instructional aspects, making it easier for working memory to process and integrate information (Kennedy & Romig, 2021).

One of the key strengths of providing scaffolded supports lies in their ability to foster the development of lifelong learning skills. As students move through scaffolded lessons and activities, they are encouraged to reflect on their learning processes, set goals, and take increasing responsibility for their academic journey. Scaffolded supports equip students with the tools they need not only to comprehend specific subject matter but also to become independent, self-directed learners. This independnce is particularly important as different challenges may arise for students as they navigate an ever-changing educational landscape.

## Critical Features and Connections to Pillar Practices

Scaffolded supports are either preplanned or provided "on the spot" and then faded or removed once they are not needed; educators gradually release or transfer responsibility to students as they become more proficient (Archer & Hughes, 2011). Scaffolded supports are integrated into a lesson and can be provided in multiple forms including:

- dialogue (e.g., modeling, hints, questions, partial completion of the task, informative feedback),

- materials (e.g., cue cards, anchor charts, checklists, manipulatives, graphic organizers, models of completed tasks, etc.), and

- technology (e.g., LiveScribe pen, WatchMinder, virtual manipulatives, online Frayer and other fillable graphic organizers, etc.). HLP 19 has additional information.

Within an explicit lesson, scaffolded supports must be chosen with a purpose and taught with intention—they are there as support to accomplish a task. For example, when teaching appropriate classroom behaviors to students who may need more support than their peers, the effective behavioral strategy of check in, check out (CICO; Kladis et al., 2023) uses a Daily Progress Report (DPR) as scaffolded support to both remind the student of their academic and behavior goals and provide feedback to all involved in the intervention. CICO involves an educator specifically teaching culturally and contextually appropriate behavioral responses to classroom events through explicit instruction—modeling, practicing, and providing feedback to the student or group of students. The DPR is a scaffolded support for students to receive feedback and understand their performance and, in some cases, to identify, themselves, how they are performing. At the end of the day, the educator or other individual uses the DPR to check in with the student to see how they were rated and provide affirmative and corrective feedback. The purpose of this intensive process and scaffold is

not to have the student rely on the CICO process and DPR forever but, rather, to remind the student of their behavioral goals, cue the student to use these behaviors throughout the day, and provide behavioral feedback. Once the student is using the behaviors consistently across classrooms and the DPR indicates so, the CICO process with the DPR is faded. Eventually, all external support is removed, and the student is able to remember and use the appropriate behaviors independently.

## Cultural Considerations

By integrating culturally inclusive pedagogies and practices (CIPP) into scaffolded supports, educators can create an inclusive and equitable learning environment that honors the cultural identities of all students. Educators should consider cultural inclusivity while they are instructing with scaffolded supports. For example, educators can incorporate a myriad of learning materials, examples, and contexts into their scaffolded supports that relate to the backgrounds of their students. Additionally, as the provision of scaffolded supports is often language-dependent, educators should consider providing additional language supports for students who are multilingual learners or for those whose first language differs from the language of instruction such as using cue words from their first language or examining how the words are similar or different from words in their first language. Individualizing scaffolded supports to student understanding, language, or intersectional needs ensures that students see themselves and their cultures positively represented in the educational content.

## Examples in Practice

### Elementary

*Jermaine is a student with a writing disability. He can spell on grade level and uses expected mechanics in writing; however, he struggles with organizing and staying on topic when given a writing assignment. For the unit on writing persuasive text, his teacher uses the POW-TREE (Pick an idea, Organize my notes, Write: Topic*

*sentence, Reasons, Explanation, End; Kroesch et al., 2022; Mason et al., 2011) strategy that includes a graphic organizer with sentence starters for the parts of a persuasive argument. To increase Jermaine's motivation for writing, his teacher, after teaching each step of the strategy for writing, has Jermaine complete his work using a computer-based graphic organizer (Evmenova et al., 2020). For this learning, using the POW-TREE strategy and the computer-based graphic organizer might be a Tier 1 strategy. Jermaine may need to use the computer-based graphic organizer longer than his peers, but the goal is for all students to be able to internalize the ideas that are included in the graphic organizer so that, when given the task of writing a persuasive paragraph, they use the organizer independently or in their mind but no longer need teacher direction to use it.*

### Secondary

*Ms. Tally teaches algebra to a diverse group of students. In her experience, she has found that teaching students to solve equations with a variable is difficult because it requires abstract thinking and multiple steps. Ms. Tally understands that the use of manipulatives and completed and/or partially completed math problems in the teaching of more complex math concepts (Long et al., 2021) is beneficial for students. So, she begins her algebra instruction with algebra tiles, teaching her students what the tiles represent (e.g., positive and negative variables, numbers or constants) and then models using the tiles to solve given equations. Ms. Tally guides the students in solving equations using the tiles during guided practice and then has them complete independent practice with the tiles and completed or partially completed examples. As she monitors her students, she evaluates whether they are using the tiles correctly, whether they can replicate the worked problems, and whether they can articulate what the tiles and the actions with the tiles represent. Once she is satisfied that the students have mastered the understanding of the mathematical concepts the tiles represent, Ms. Tally will have students complete examples by drawing the tiles and then by using the numbers instead of the tiles.*

## Research Support

Unlike some other HLPs, there is a strong and specific evidence base for the use of scaffolded supports with students with disabilities in a range of age levels, content areas, and disability types (Mariage & Hicks, 2023). Scaffolds should be identified in collaboration with colleagues and family members to ensure they are appropriate given a range of instructional settings. Educators should also remember that all scaffolds need to be explicitly taught to students and the students must receive feedback so they know the extent to which they are making appropriate use of the tool(s) (Mariage et al., 2019). It is also critical for students to learn to use scaffolds across different settings so they are better prepared for the rigors of life beyond school and can continue to draw upon strategies and tools for ongoing success (Alber-Morgan et al., 2023).

Graphic organizers and content enhancements are perhaps the best-known examples of scaffolded supports. For example, Dexter and Hughes reported strong results when using graphic organizers with upper elementary and secondary level students with learning disabilities in content areas. One of the most effective lines of scholarship in the domain of scaffolded supports is content enhancement routines. For example, Schumaker and Fisher reviewed 35 years of content enhancement routines and their collective impact on the content area learning performance for students with disabilities. A common thread of the respective reviews by Dexter and Hughes (2011) and Schumaker and Fisher (2021) is that the use of explicit instruction to teach students how to use various scaffolds for learning is critical to success.

Continuing in the tradition of graphic organizers and content enhancements, Barns and colleagues (2023) reported on effective interventions, including scaffolded supports for students with disabilities in secondary-level science classrooms. These supports include graphic organizers, but also technology-based and other supports for students. Computer-driven supports are a common form of scaffolded supports in today's classrooms. For example,

Vernon and Shumaker (2021) used computerized scaffolds to support the development of social skills of adolescent students with disabilities. Shumaker (2021) also used a computer-based program including various scaffolds to support writing outcomes for adolescents with learning disabilities.

Mathematics and writing are two other domains where scaffolded supports are often used and effective. Powell and colleagues (2022) reviewed effective mathematics instruction and how scaffolded supports such as manipulatives and other tools can make abstract concepts more concrete. Evmenova and Regan (2019) are engaged in a longstanding line of scholarship using technology scaffolds for students with disabilities to demonstrate positive effects on student outcomes.

Hovey and colleagues (2019) reported on scaffolded supports that can be used for students with learning disabilities and multilingual learners in middle schools to support a range of academic outcomes. Similarly, Calvin and Gray (2020) used graphic organizers to support reading comprehension outcomes for multilingual students with learning disabilities. These two studies give evidence that the use of scaffolds for diverse students with unique language and learning needs can also benefit from the use of scaffolded supports.

In summary, scaffolded supports have a longstanding history of effective use with students with disabilities across grade levels and content areas. This includes graphic organizers, content enhancements, computer-aided tools, manipulatives in mathematics, and other individualized supports for students. Researchers and practitioners have also worked to make scaffolds culturally inclusive to further influence their effectiveness and capacity for personalization.

# Resources to Implement Practices

| Online Resources | |
|---|---|
| Instructional Scaffolding to Improve Learning (Northern Illinois University Center for Innovative Teaching and Learning) | https://www.niu.edu/citl/resources/guides/instructional-guide/instructional-scaffolding-to-improve-learning.shtml |
| Instructional Scaffolding Module (IRIS Center) | https://iris.peabody.vanderbilt.edu/module/sca/cresource/q1/p01 |
| Resources to Support Scaffolding (UNC Frank Porter Graham Child Development Institute) | https://npdci.fpg.unc.edu/resources-supportscaffolding.html |
| HLP Video on HLP 15 | https://vimeo.com/mjk/scaffolds?share=copy |

| Embedded HLP 17 | Use flexible grouping. |
|---|---|

The use of student groupings of various sizes and for a range of purposes is part of every educator's repertoire. Educators deploy student groups to provide a setting for new instruction, group work, review activities, and everything in between. As some students require intensive instruction to support their needs, they can expect to be placed into targeted instructional groups. The use of flexible groupings offers educators options for designing and delivering instruction or promoting student active learning/demonstrations to suit specific goals. However, it is not merely the size of the group that makes the difference in learning or other performance. In addition to the reduced number of students, educators must provide evidence-based or other effective teaching practices (such as explicit instruction) for meaningful outcomes to occur. Group configurations and sizes should be the result of deliberative educator collaboration, informed by data and student goals, to ensure a tight match between demands of the curriculum and student learning or other needs.

# Brief Description

Educators at all grade levels and content areas, including specials like music and art, have use for HLP 17 Use Flexible Grouping. Sorting students into groupings of various sizes and purposes gives students chances to work with and learn from a wide variety of peers, to receive instruction that suits their unique needs with peers, and to take responsibility to work independently or in teams. Educators can opt for homogeneous or heterogeneous skill groupings, depending on the lesson objective and needs of students. These decisions are often made in collaboration with colleagues and following a review of data. One of the important things to remember about flexible groupings is this practice should be paired with effective instructional practices such as explicit instruction (EI). The size of the group can help support learner's needs; however, if instruction is not of high quality, even one-on-one grouping would not have the intended impact. Therefore, the strategic and effective eductor knows to master explicit instruction and other evidence-based practices, and then make decisions about how the effectiveness of that instruction can be bolstered by groupings of various configurations.

# Critical Features and Connections to Pillar Practices

Delivery of explicit instruction (EI) can and should occur across grade levels, content areas, and instructional settings. Mastery of this practice is key to all educators' effectiveness. To accompany use of EI, educators should be thoughtful and deliberate about when and where students should receive key instruction in terms of group sizes and composition. For some students, instruction in small groups can help facilitate their success. Having smaller numbers of students in a group means more individual attention, more chances to practice and receive feedback, and fewer distractions.

Student data from various assessment sources (diagnostic, formative, and summative) should be carefully studied by educators (individually and in teams) to understand students' present level of performance and areas of need. These data provide educators with information needed to decide what type of instruction is needed and the setting (including duration) where it should be delivered. This use of data is an example of how HLP 17 works alongside other key practices. In addition to duration and group size, the collaborative, data-driven instructor will also recognize the need for group makeup in terms of homogeneous or heterogeneous student performance. In some instances, homogeneous groupings by ability makes sense when delivering intensive reading or mathematics instruction at a developmental skill level. In others, it is advantageous for heterogeneous groupings to be utilized. An example might be a group science or history project where students assume various collaborative roles.

A key to HLP 17 is understanding how it works

alongside other practices from the Instruction domain. We already noted how the collaboration (HLP 1-3) and data-driven planning practices (HLP 4-6) set the stage for decisions for when, where, and how groupings should be made based on student goals (HLP 11). But once groupings have been made, what happens instructionally within those groups needs to be taken into account. Educators will surely use systematically designed and explicit instruction (HLP 12/16), but also could use the space and time to teach students how to use various strategies (HLP 14), leverage the impact of scaffolds (HLP 15) and needed adaptations (HLP 13), and use technology options (HLP 19). A small group setting would also be ideal for supporting student preparation to generalize their learning from one setting to another (HLP 21), and receive feedback on their performance (HLP 8 and 22). In sum, HLP 17 Use Flexible Grouping is a centerpiece of how the effective educator can implement multiple effective and high leverage practices to fit student needs.

# Cultural Considerations

Students thrive in environments where they feel supported, successful, and respected by teachers and peers. The use of flexible groupings can help facilitate student success by pairing them with peers with similar academic profiles to help demonstrate everyone is on the same level. At the same time, working with higher achieving peers in other groups as informal mentors and supports can also be motivating. Use of groups gives educators options for facilitating students' intersectional needs and preferences. This can include pairing students who are new to the school and country/language together for their assignments and learning. Educators can also make pairings or groupings to ensure all students are exposed to new ideas, e.g. mixing groups according to cultures, backgrounds, and intersectionalities, which can help expose both to new ideas.

# Examples in Practice

### Elementary

*Mr. Brockman is a Kindergarten teacher at an urban elementary school. As a veteran educator, he knows the value of grouping students using a range of data and thoughtful deliberation to do so. For reading instruction, Mr. Brockman refers to his diagnostic reading data to sort students into homogeneous groupings. However, he quickly reconstitutes heterogeneously grouped students for hands-on practice and peer modeling and supports. He strategically distributes the children who are native English speakers and confident in their literacy skills and pairs them with children who are new refugees arriving from Latin America. Changing group membership across content and tasks keeps students motivated and engaged but also means they are receiving waves of supports for their success. Mr. Brockman's students were so successful with this approach that his grade level collaborative learning team asked him to lead in designing common lessons with them.*

### Secondary

*Ms. Lumpkin is a world history teacher at a rural high school. Most of Ms. Lumpkin's instruction is delivered to the whole group, and she has noticed many students with disabilities are struggling to keep up with taking notes and completion of their independent practice tasks. She consults with her colleague from the special education department, Ms. Simmons. Ms. Simmons recommends the use of small groups, drawn intentionally, where students move around stations where they receive explicit vocabulary instruction for key terms, use online resources to prepare for an upcoming team assignment, and receive explicit instruction on how to read historical documents like a historian. The occasional use of these groups results in impressive gains in student engagement and course assessments.*

# Research Support

The authors of the original research synthesis for HLP 17 Use Flexible Grouping correctly summarized that the evidence base for this practice is difficult to disentangle from other HLPs and specific practices (McLeskey et al., 2017). This is because decisions about group size, composition, and pedagogy to occur within the group are all made with colleagues (HLP 1), with input from families (HLP 3), with a range of data sources (HLPs 4 and 6), and with the use of instructional practices such as explicit instruction (HLP 16) or other intensive approaches (HLP 20). In research terms, detangling the unique variability contributed by different aspects of what happens pedagogically given groupings of various sizes and makeup is difficult (Nelson et al., 2022). The same is true for many of the HLPs in this text. However, this does not mean flexible groupings is ineffective or that it should not be used.

This HLP is as essential to the repertoire of educators (general, special, etc.) as any other (Maheady et al., 2023). Students with disabilities rely upon specially designed instruction (SDI), being given extra time to process new content, and having lots of chances to successfully learn (Kennedy & Boyle, 2021). Use of small groups is a common accommodation and instructional setting to ensure the SDI is delivered as prescribed (Colón et al., 2022). Numerous studies, particularly from the intensive instruction domain where small groupings are a major feature of the intervention, demonstrate positive learning and behavioral gains for students learning in these situations (Losinski et al., 2019; McKenna et al., 2015; Stevens et al., 2018; Wanzek et al., 2018).

# Resources to Implement Practices

| Online Resources | |
|---|---|
| HLP video for HLP 17 | https://vimeo.com/mjk/groupings?share=copy |
| IRIS Center module on differentiating instruction | https://iris.peabody.vanderbilt.edu/module/di/cresource/q1/p02/ |
| Center for Professional Education of Teachers: Getting into Groups | https://cpet.tc.columbia.edu/news-press/getting-into-groups-differentiation-through-strategic-and-flexible-grouping |
| IRIS module on grouping for reading comprehension | https://iris.peabody.vanderbilt.edu/module/csr/cresource/q3/p10/ |

| Embedded HLP 18 | Use strategies to promote active student engagement. |
|---|---|

Educators must have specific strategies and practices ready to deploy when teaching to ensure student engagement, and thus, learning. Student engagement is core to the development of knowledge and skills in academic and behavioral domains to ensure increased opportunities for learning and practice. In addition, educators who develop positive relationships with students based on mutual respect, trust, and consistent expectations are in a position to succeed. Successful teachers seeking to engage students forge connections between content and students' lives, and use a range of culturally inclusive pedagogies and practices (CIPP) including teacher-led, peer-assisted, and student-regulated options throughout lessons. Student engagement is carefully monitored, and educators deliver positive and constructive feedback to sustain performance. Educators who use explicit instruction have a leg up for fostering student engagement thanks to the regular opportunities to respond, provide feedback, and engage in a student-centered teaching process inherent to that pillar HLP.

# Brief Description

Active student engagement is essential in all classrooms to promote positive student outcomes and overall classroom dynamics. Student engagement refers to the level of interest, involvement, and participation that students demonstrate when learning (Groccia, 2018). Accordingly, actively engaged students are not just physically present in the classrooms but are mentally, emotionally, and socially vested in their education as well. Their engagement impacts short-term academic success (Ault et al., 2018), as well as the future likelihood of graduation and post-secondary outcomes (Dykstra et al., 2015).

Student engagement is a multifaceted concept that encompasses cognitive, affective, intersectional, and behavioral dimensions. First, student engagement is cognitive, including a student's persistence and motivation to complete difficult tasks during instruction. Next, student engagement is affective, referring to a student's sense of belonging and self-value. Finally, it is behavioral as indicated by the level of a student's participation in classroom and school activities. These dimensions are dynamic to each individual and are directly influenced by educator behavior. Educators are expected to foster positive, responsive, and culturally inclusive classroom environments which contribute to the holistic school community and, in turn, each student's success. Therefore, it is crucial for educators to foster active student engagement within their classrooms.

To achieve this, educators can utilize research-based strategies. Strategies may incorporate individual (e.g., data-driven feedback, self-monitoring checklist) or group methods (e.g., collaborative projects, peer assisted learning). Educators recognize that their students have varying strengths, challenges, intersectional needs, and preferences, so they can incorporate various strategies to address these diverse needs. This recognition is especially pertinent to meet the needs of students with disabilities eligible for additional services in schools. Students with disabilities may struggle with active engagement compared to their peers and require individualized education (Harbour et al., 2015). Active engagement aligns with the goals and accommodations outlined in individualized education programs (IEPs) for students with disabilities. Educators can better meet the specific needs outlined in each student's IEP through purposeful engagement strategies. As achieving active student engagement within classroom and school communities should be the priority for all educators, educators should incorporate these critical features to guide them.

# Critical Features and Connections to Pillar Practices

When students are engaged, the classroom becomes a dynamic and effective learning environment that promotes academic success and personal development. A key to ensuring student engagement in the classroom is the use of explicit instruction. Because explicit instruction's

components include active teaching and learning activities intended to bring about maximum student learning, they also function to support engagement. For example, use of opportunities to respond (OTRs) with high-quality feedback afterwards helps keep students engaged and responsible for answering various questions or participating in other ways. The matching feedback gives them information on their performance and is reinforcing so they continue to pay attention and participate. Within explicit instruction is also a call to use multiple examples that are relevant to students' lives, and to break content into chunks. In both cases, educator efforts to explain content in a manner that students are in position to understand will result in more effective learning, which goes hand in hand with engagement.

## Cultural Considerations

Cultural considerations are elemental to equitable student engagement. When educators incorporate cultural inclusive pedagogies and practices (CIPP) with evidence-based practices, diverse student voices and backgrounds are valued in learning communities. As a result, educators should incorporate CIPP and consider student intersectionality within their planning, instructional delivery, and communication with students to optimize student engagement.

Educators should initially incorporate CIPP within planning. The first step is critically reflecting on one's own cultural competence. While uncomfortable, educators can reflect on their own biases and lived and intersectional experiences that may influence how they perceive successful student engagement. For example, "Based on my previous learning experiences, how do I perceive 'successful' student engagement?" or "How can I value and incorporate a diverse representation of student engagement within my classroom?" Addressing one's own biases contributes to reducing stereotypes and prejudice. Educators who actively reflect, model critical thinking and open-mindedness for their students. Additionally, educators can plan for an inclusive and safe classroom environment. This consists of deliberately selecting learning materials

(e.g., textbooks, literature, and media) that represent a variety of cultures and perspectives. Students see themselves reflected in the content which fosters a sense of inclusion, and thus may lead to more active student engagement.

Culturally inclusive instructional delivery also influences active student engagement. When instructing, educators can incorporate diverse intersectional perspectives, histories, and examples into the curriculum. This not only values a student's intersectional identity, but also makes the content more engaging as it builds upon their background knowledge and experience. For example, when an educator introduces a new topic, they can give students various opportunities to respond by making connections to their own life. Students are given explicit instructions to reflect on their lives, develop a connection to the content, and then discuss their connection with a partner. This culturally inclusive instructional delivery values student diversity and provides a foundation to further apply their knowledge.

Furthermore, culturally inclusive communication can positively influence student engagement. First, educators can be cognizant and respectful of various cultural communication styles and norms. Some students may be hesitant to orally express themselves but might excel in written or other non-verbal forms of communication. Another example is that some students may be more accustomed to collaborative learning, while others may excel in individual-focused tasks. In short, student engagement may look different for students of various intersectional backgrounds. Therefore, educators can be flexible in adapting evidence-based strategies to accommodate diverse student needs.

Second, educators should accommodate the various language acquisition goals for multilingual students. Educators can scaffold their instruction to differentiate the linguistic needs for students. For example, educators can incorporate content and language objectives within each lesson. Multilingual students are more likely to actively engage in a lesson when they are given explicit

opportunities to practice their English. Thirdly, educators should communicate with students' families and communities to better understand their cultural contexts. This includes going above the required annual IEP meeting or parent-teacher conference to communicate with families.

For example, educators can send out a beginning of the year survey to elicit family information. Survey questions may consist of (a) self-reported strengths and challenges of their child, (b) their preferred contact outlet (e.g., email, phone, or text), and (c) their preferred language of communication. Involving families in the educational process fosters a collaborative relationship between home and school. In an increasingly diverse society, educators can foster equitable student engagement when incorporating appropriate intersectional considerations.

# Examples in Practice

### Elementary

*Mr. Yoder felt frustrated with the engagement of his 3rd graders – especially during science class. Students were putting their heads down on desks, not volunteering to answer questions, and earning low scores on tests and other assignments. A self-inventory of his teaching revealed he was doing quite a bit of lecturing, with students responsible for writing definitions of key terms from the PowerPoint slides into their notebooks. He hadn't done any demonstrations or hands on activities in weeks. Mr. Yoder was a brand new general education teacher, and had been hired on an emergency provisional license without any formal training. Therefore, the principles of explicit instruction were unknown to him, as well as the role of engagement in student learning. A colleague from the special education department, Mr. Gumble, recommended he watch the Video for HLP number 18 (https://vimeo.com/mjk/engagement?share=copy) and check out the associated teacher leadership guide (https://highleveragepractices.org/hlp-leadership-guides). Mr. Gumble also recommended he think about ways to incorporate technology from sites such as PhET (https://phet.colorado.edu) to get students*

*interested and immersed in science. Finally, Mr. Gumble recommended the explicit instruction-based slides for science on www.vocabsupport.com which have embedded questions along with chunked information with clear language to support student learning. The next semester, Mr. Gumble and Mr. Yoder co-taught together, and Mr. Gumble was able to help Mr. Yoder incorporate active engagement strategies into his lessons. It was difficult at first but, eventually, Mr. Yoder saw a change in how his students felt about science and how they learned more than they ever had.*

### Secondary

*Mr. McClure is a high school special education teacher you might remember from Hollywood, California. He primarily works with students with autism and intellectual disabilities who are included in the general education classroom for academic courses. He also works with students in the transition program and helps them participate in on the job trainings. One of his students, Selma, is having a hard time staying on task and making progress with her on the job training at the local convenience mart. Her job is to check the dates on the milk and eggs and ensure everything is stocked. However, the owner of the shop has been finding her standing still and not working. Mr. McClure conducted some observations, and determined Selma was overwhelmed at work, which impacted engagement. He filmed her successfully completing her tasks with his phone, and then turned it into a short modeling video Selma kept on her phone. Whenever she felt overwhelmed, Selma could watch herself completing the task and remember what to do. The use of technology, and the explicit instruction that went with it, made the difference in Selma's engagement and helped her succeed.*

# Research Support

High-Leverage Practice 18, Use Strategies to Promote Active Student Engagement, is another example of a practice that is clearly essential for every educator to have in their repertoire, but its unique effectiveness is difficult to detangle from other practices and curriculum teachers are using.

In other words, as educators use strategies to engage students during academic instruction or to help ensure appropriate behavior, the corresponding measures of academic or behavioral change reflect both the engagement strategy/technique and the pedagogy and curriculum being used. As noted earlier, it would be possible to do lab-style studies to carefully control the use of specific engagement-provoking tools or strategies, but this would still be limited to narrow intersectional considerations and content areas. In many ways, the effectiveness of HLP 18 is tied to the evidence bases of HLPs 13, 15, and 17, in that engagement rises when students are provided with instructional settings, materials, and supports that help them succeed.

In addition, a key to the research base for HLP 18 is HLP 16, *Use Explicit Instruction*. Explicit instruction, as described by Archer and Hughes (2011), and others (e.g., Hughes et al., 2017; Doabler et al., 2019), within explicit instruction's key principles is the use of opportunities to respond (OTRs) to a range of prompts. OTRs can be oral, gestural, in writing, teacher-led, peer-led, and numerous other configurations. Numerous researchers have used different types of OTRs as engagement techniques to support student outcomes in academic and behavioral domains. An example is Duchaine and colleagues (2018) who had students in mathematics and science courses respond using response cards. The engaged responding led to important learning gains. Doabler and colleagues (2019) also utilized principles of explicit instruction to support measurable increases in student mathematics performance. Clarke and colleagues (2016) used response cards with students with intellectual disabilities as a way to keep them engaged and promote increased academic growth. Scholars and educators have long understood the intertwined nature of explicit instruction and its positive impact on student engagement.

Researchers and educators also use OTRs, including response cards, to promote improved behavior. Lambert and colleagues (2016) used response cards during academic and behavior-facing lessons to promote prosocial student behaviors. Randolph and colleagues (2017) completed a meta-analysis in this domain and found overall positive effects for use of response cards on student achievement and behavior. In sum, student engagement using a range of techniques and tools has solid empirical evidence to support behavioral outcomes for students with disabilities.

Another strand of engaging students is use of technology. Prado and colleagues (2021) used computer-driven prompts to keep students engaged during academic learning time and observed measurable gains in performance. McDonald and colleagues (2023) used a multimedia-driven vocabulary instructional approach to improve learning of rural students with and without disabilities. Blending elements of explicit instruction (including OTRs) with key instructional practices for vocabulary and other domains is a time-tested method for improving outcomes for students with disabilities.

There is good evidence for HLP 18, when paired with other HLPs and pedagogies/curriculum. It is logical to expect student academic and behavioral performance will improve when they are engaged versus not, and educators have a range of simple and complex options at their disposal to generate that engagement. From simple oral prompts to technology-driven options, educators should utilize this HLP with all students regardless of grade level or content area.

# Resources to Implement Practices

| Online Resources | |
|---|---|
| HLP video for HLP 18 | https://vimeo.com/mjk/engagement?share=copy |
| HLP Leadership Guides | https://highleveragepractices.org/hlp-leadership-guides |
| University of Colorado: Facilitating and Assessing Student Engagement | https://www.colorado.edu/center/teaching-learning/2023/01/23/facilitating-and-assessing-student-engagement-classroom |

| Embedded HLP 19 | Use assistive and instructional technologies. |
|---|---|

Assistive and instructional technology are everywhere in our world – especially within the field of education. Every IEP is required to have a statement of needed assistive technology supports and these can also be included amongst the list of formal accommodations or modifications. Instructional technology can also be useful for supporting student learning. Guided by the Universal Design for Learning (UDL) instructional design framework and equity lens, educators select and implement assistive (AT) and instructional technologies (IT) to support the needs of students with disabilities. The process of AT selection and evaluation should follow the Student-Environment-Task-Tool (SETT; Zabala, 2005) approach. Educators, in collaboration with AT specialists, select and use augmentative and alternative communication devices and assistive and instructional technology products to promote student learning and independence. They evaluate new technology options given student needs; make informed instructional decisions grounded in evidence, professional wisdom and experience, and students' IEP goals; and advocate for administrative support in technology implementation.

# Brief Description

Few aspects of modern life do not involve technology in at least some way. This includes within schools and in the support of students with disabilities. Whether assistive or instructional technology, or augmented and alternative communication devices (*see glossary*), students have access to powerful technology options that open doors (sometimes literally), facilitate communication, provide scaffolds or direct instruction, and enhance delivery of explicit instruction via use of images, videos, and other simulations or demonstrations (Howorth & Kennedy, 2021). At the time of writing, generative artificial intelligence tools like Chat GPT are also on the rise and have the potential to transform the field (Marino et al., 2023). In short, HLP 19 is essential to the repertoire of every educator, but its scope in terms of breadth and depth can be overwhelming.

# Critical Features and Connections to Pillar Practices

Every IEP requires a statement of needed assistive technology needs, but the responsibility to consider how technology can support students' academic and behavioral needs does not end there. Technology is a domain that has become so commonplace, educators now make decisions about its implementation across the school day without much intentional forethought about how the tool or product being utilized is a match for students'

unique needs (Kennedy et al., 2022). Instead, grabbing a video from YouTube, putting together a quiz review using Kahoot! or similar product, using PowerPoint slides, and asking students to take notes within a Pear Deck are daily occurrences. While none of these specific products are inappropriate, without careful matching of students' unique needs in light of their specific goals and demands of the curriculum, the technology could be used ineffectively, inappropriately, or inefficiently (Kennedy & Boyle, 2021). Therefore, the effective educator uses their colleagues and students' family members to generate ideas about student needs, backed by data, to best understand the systematic plan that should be in place. Once done, the team identifies instructional techniques and methods best suited for student needs, like explicit instruction, and then supports like HLP 19 can be considered.

Instructional and assistive technology can increase independence, communication skills, and overall learning outcomes for students with disabilities. The following guiding principles should always be considered when making IT or AT determination:

- Evaluation of student needs and selection of technological tools should be intentional and systematic;
- In accordance with the SETT (Zabala, 2005) framework, the strengths as well as the needs of the Student, followed by the characteristics of the Environment, and requirements of the Task should be considered before deciding on a Tool (Hollingshead et al., 2021);

- Equity and social justice lens should be applied to any decision-making process regarding technology (Kaczorowski et al., 2022);

- Instructional technology should support all students' learning and can be intentionally designed following the UDL framework (Kennedy et al., 2014); and

- Assistive technology should support individual students' needs to allow them greater access and independence.

In addition, when selecting technologies, educators must consider individualized goals, access to the general education curriculum, and extra-curricular activities in which the student may be interested in participating. They consider key tasks that students will need to complete and the balance between providing necessary support and developing skills toward independence. They work to ensure that students understand the purpose of the technology and how it will support their learning, collect and analyze data on its effectiveness, and make decisions about changes or adaptations that may be needed.

Technology is embedded in our daily lives and used by nearly everyone, inside and outside of educational settings. Educational technology encompasses a wide spectrum of supports from universal instructional supports for all students (e.g., voice recognition, virtual manipulative, smart devices, mobile devices) to highly individualized assistive technology (AT) to enhance access and independence of students with disabilities (Kaczorowski et al., 2022). AT is often personalized, thereby meeting an individual's specific intersectional need and mitigating the impact of the disability to enhance access to instruction, improve communication, support moving around, or otherwise enable individuals to participate in their world (Billingsley et al., 2013). Instructional technologies are products and approaches intended to support student learning and engagement (e.g., learning-oriented games and software, instructional videos). The National Educational Technology Plan (U.S. Department of Education, 2017) promotes the use of equitable

and accessible instructional technologies in the classroom. In addition to physical access and web accessibility, educators should also consider intersectional background, experiences, and needs among students (Kaczorowski et al., 2022).

Infusion of technology (whether IT or AT) into instruction should happen through a thoughtful and intentional design process. ESSA of 2015 and CAST (n.d.) promote the use of UDL as an instructional design framework intending to remove unnecessary barriers and ensure meaningful learning outcomes for all students. Guided by three main principles, infusion of instructional technology into UDL-based instruction should ensure the provision of multiple means of engagement in learning, multiple means of representation of information, and multiple means of action and expression of knowledge (Rao et al., 2021).

Evaluation and selection of AT for individual students should similarly follow an intentional process. Zabala (2005) proposed the SETT framework, where the Student, Environment, and Task are thoroughly considered first, before matching an appropriate Tool. All in all, behind any technology use in the classroom should be a strong intention to promote student independence, engagement, and access. Combined with such intention should be a consideration of the whole student as an intersectional human being (with race, ethnicity, ability, age, language, and gender identity impacting their life at all times) (Kaczorowski et al., 2022; McMahon & Hollingshead, 2021). Finally, any technology integration should follow a thoughtful and systematic design process, like UDL. Technology tools change constantly, but the processes of how educators implement these tools in instruction can always follow an intentional design approach.

## Cultural Considerations

As noted above, the overwhelming scale of HLP 19 and technology in general makes it difficult to narrow down into a concise list of omnipresent properties and recommendations. However, the broadness of this HLP also grants substantial

flexibility to the creative and dedicated educator seeking to make instruction and settings culturally inclusive and supportive for students.  For example, AAC devices can be loaded with phrases and language that reflect the student's preferences, background, or culturally inclusive pedagogies and practices (CIPP).  Images used within instructional presentations can be drawn from sources that reflect a range of cultures and interpretations.  Videos shown to students can be selected or created to ensure a diversity of voices and ideas are shown.  And technology also possesses the capacity to present content to students in their home language, when appropriate.  Technology options help bring family members into the fold for better understanding and participating in students' education.  Generative artifical intelligence (AI ) options are currently known to be culturally biased, but with time we expect this limitation to improve.  In summary, the door is wide open for HLP 19 to support the culturally inclusive needs of all students.

# Examples in Practice

### Elementary

*Mr. Szyslak is a 2nd grade teacher in a small town.  He recently gave up his position as a local business owner and joined the teaching force.  Although enthusiastic for his new job, he didn't know much about technology – and especially didn't know how it should be used when teaching students.  It turns out Mr. Szyslak has a student with extensive support needs in his classroom, which made him extremely nervous.  The school principal, Mr. Skinner, was a trained special education teacher and technology expert.  He called Mr. Szyslak in for a meeting to discuss the IEP and technology needs of the student with extensive support needs (Ralph).  Ralph needs access to a range of accessible supports for accessing text.  Mr. Skinner recommended the Accessible Education Materials (AEM) Center housed at CAST (https://aem.cast. org).  This site contains lots of materials on how to ensure instructional materials are accessible for students and Mr. Skinner offered to go through this with Mr. Szyslak.  He also recommended*

*Mr. Szyslak complete the IRIS Center module on assistive technology (https://iris.peabody. vanderbilt.edu/module/at/) to bolster his confidence and competence in this domain.  They meet over coffee to discuss the module and application in his instruction.*

### Secondary

*Mrs. Chopra is a 7th grade science teacher in a rural school.  She co-teaches with Ms. Hoover, a veteran special educator.  The team's 4th period class has 12 students with IEPs out of 26 total students.  Four of the students are multilingual learners.  The disabilities range from learning disabilities to autism spectrum disorders.  The students have been struggling with success learning tricky and seemingly irrelevant vocabulary.  Many of the students expressed the notion that they just don't see the point of why they have to learn about mitosis, meiosis, and several other words they can't pronounce, let alone understand.  The team decides that explicit instruction is needed, but these students need more than cues, clear language, examples, modeling, guided practice, and independent practice.  These students need access to engaging technology options.  They first try YouTube, but keep finding videos that have very complicated vocabulary (which was already the issue), and move at a fast pace.  The team, in their searching, stumbles across the CORGI tool (https://www.cast.org/resources/products/corgi) which is an online graphic organizer for use in content areas.  CORGI also has other embedded accessible supports aligned with the principles of Universal Design for Learning including speech-to-text, and online dictionaries.  They pair CORGI with free resources from the STORMED Lab at the University of Virginia, including slideshows that use explicit instruction and other embedded scaffolds (www.vocabsupport.com).  When they first try using these in class, the students are mesmerized and engaged—by the end of the lesson, they can define meiosis and mitosis and differentiate between them. The team decides to continue using these technologies and including how to use things like speech-to-text in student practice opportunities.*

# Research Support

There are volumes of books (e.g., Bouck, 2016) and journals (e.g., Journal of Special Education Technology) dedicated to HLP 19. Attempting to summarize the literature base for this HLP is possibly the most difficult of all the HLPs, given its broad nature. The Innovations in Special Education Technology (ISET) Division of the Council for Exceptional Children (CEC) exists to advance knowledge and products in this space (www.isetcec.org). The Universal Design for Learning Implementation and Research Network (UDL-IRN) is also a leader of scholarship and professional learning (https://udl-irn.org). CAST (https://www.cast.org) is another longstanding source of high quality products, research, and dissemination.

As evidence of the impact of technology, the U.S. Department of Education via the Office of Special Education Programs (OSEP) has also made substantive investments in the development and dissemination of technology for students with disabilities. The Stepping Up Technology competition, for example, housed within the Education Technology, Media, and Materials program, provides resources to teams to develop, implement, and evaluate impact on students with disabilities and their teachers (https://osepideasthatwork.org/resources-grantees/program-areas/education-technology-media-and-materials-etechm2). Other grant mechanisms through the Institute for Education Sciences' National Center for Special Education Research also exist and provide resources for development and testing of new ideas intended to support outcomes for students with disabilities (https://ies.ed.gov/ncser/). OSEP also recently released guidance on AT use for students with disabilities (https://sites.ed.gov/idea/idea-files/at-guidance/). In summary, there is a deep and wide evidence base for HLP 19.

# Resources to Implement Practices

| Online Resources | |
|---|---|
| Innovations in Special Education Technology Division of CEC homepage | www.isetcec.org |
| CAST homepage | www.cast.org |
| Accessible Education Materials Center via CAST | https://aem.cast.org |
| OSEP Education Technology and Media Program homepage | https://osepideasthatwork.org/resources-grantees/program-areas/education-technology-media-and-materials-etechm2 |
| OSEP Assitive Technology (AT) Guidance document | https://sites.ed.gov/idea/idea-files/at-guidance/ |
| Explicit instruction slides for upper elementary and secondary science terms | www.vocabsupport.com |
| IRIS Center module on assistive technology | https://iris.peabody.vanderbilt.edu/module/at/ |
| CORGI website via CAST | https://www.cast.org/resources/products/corgi |
| World Wide Web Consortium (W3C) Web Accessibility Initiative | https://www.w3.org/WAI |
| National Educational Technology Plan (NETP) | https://tech.ed.gov/netp |

| Embedded HLP 8 and 22 | Provide positive and constructive feedback to guide students' learning (HLP 22) and behavior (HLP 8). |
|---|---|

The effective provision of feedback is one of the most important instructional practices for teachers. Feedback is used to guide student learning and behavior and increase motivation, engagement, and independence. Effective feedback must be strategically delivered and focused on tasks, processes, or self-regulatory actions. Feedback should be goal directed and is most effective when the learner has a goal, and the feedback informs the learner how to improve performance toward reaching that goal. Feedback may be verbal, nonverbal, or written, and should be timely, contingent, genuine, meaningful, age appropriate, and at rates commensurate with task and phase of learning (i.e., acquisition, fluency, maintenance). In equitable and inclusive classrooms, educators take care to provide meaningful feedback to all students and recognize the potential for unconscious bias that may prompt lowered expectations or deficit thinking toward historically marginalized students. Educators must consider age, cultural background, learning preferences, and classroom dynamics when providing public or private feedback.

# Brief Description

The effective delivery of positive and constructive feedback is a powerful instructional practice that can address student learning, behavior, motivation, engagement, and independence (Hattie, 2008; Wisniewski et al., 2020).  When educators provide positive and constructive feedback, they begin by clearly emphasizing the specific skill and knowledge a student has displayed.  If the student requires correction or constructive feedback, the educator notes the needed correction, explains how the correction will be helpful to the student, and may engage in reteaching part(s) of that skill. Additionally, positive and constructive feedback is on-going, delivered in varying settings (i.e., to whole classes, small groups, or individual students), genuine, culturally inclusive, short and sweet, and age-appropriate and can take a variety of forms including questioning, scaffolding instruction, written comments, and computer-mediated feedback (Brookhart, 2008; Doabler et al., 2016; Hattie & Timperley, 2007; Thurlings et al., 2013).

Positive and constructive feedback is used to guide students' learning and behavior in all instructional settings and across all instructional conditions.  Providing specific, individualized positive and corrective feedback is considered ideal, and occurs when educators recognize that the complexity or significance of the task or repeated nature of the error necessitates a one-on-one conference with a student.  Taking a few minutes, the educator reminds the student of the instructional goal, acknowledges what the student has done well, and explains how the feedback will assist the student in meeting the goal.  The educator then provides specific, clear, actionable feedback focused on a critical task or process, checks for understanding, provides a model (if needed) and asks the student to paraphrase the feedback. Immediately preceding the next opportunity for the student to engage in the task, the educator provides a quick reminder of the feedback and continues to monitor student progress over time.  While often considered time-consuming and difficult to manage, providing individualized feedback is a strong lever for equity in the classroom.

As educators recognize patterns of misunderstanding or task-related errors, they may employ flexible grouping (HLP 17) as an approach to delivering positive and constructive feedback to small groups of students.  Small group feedback is very similar to individualized feedback in that it is goal-oriented, begins with acknowledgement of positive effort and work, and then focuses on providing feedback specific to a critical task or component of a task.  This feedback includes clear actions students may take and a check for understanding.  Feedback to small groups of students may follow the explicit instruction steps of educator modeling, guided practice, and individual practice.

Whole class feedback is also directed toward patterns of misunderstanding or task-related errors and is similar to small group feedback in that educators work through the same components.

One difference is that, while many students in an inclusive classroom will be able to adjust their performance based on this level of feedback, students who experience barriers to learning may require additional scaffolded support (HLP 15). Thus, a caution related to whole-class feedback is that during guided and individual practice, students who need the most support may not be able to independently utilize the feedback to make progress towards learning goals.

## Critical Features and Connections to Pillar Practices

Although the use of academic and behavioral feedback occurs in multiple settings and in varying conditions, there are key considerations for feedback which include connecting to a learning goal, targeting the level and background of the student, and ensuring feedback is culturally affirmative, constructive, and appropriate.

Educators should consider the student's current level of performance and frame their feedback at that level while focusing on the process. In addition, receiving extensive feedback may overwhelm a student, so educators can target their feedback towards a specific component of a learning goal rather than a broader statement. This clear and tangible feedback will provide the learner with an action that may be taken (Thurlings et al., 2013). The intensity and frequency of the feedback may fluctuate based on how close the student is to meeting their learning goal. These considerations allow students to receive feedback that is specific to their goals and their current level of functioning.

Considering ways developmental levels, learning history, intersectional background, experiences, needs, preferences, and classroom dynamics impact student performance is important to consider when ensuring feedback is meeting the needs of the individual student. In their feedback, educators can make connections to prior learning and remind students what they already know (Doabler et al., 2016). Different forms of feedback

may be provided, including feedback about whether content was correct or incorrect, discussing strategy use, and addressing students' self-regulation (Hattie & Timperley, 2007). Once feedback is provided, educators should ensure that students understand the feedback and provide additional reteaching or modeling as needed.

Educators should also use appropriate and meaningful language when providing feedback. In addition, feedback should happen immediately when the error occurs and be affirmative and corrective (Archer & Hughes, 2011). This timely feedback should be offered with understandable language and a clear tone. The provision of effective positive and constructive feedback requires that teachers recognize challenges inherent in the content and skills being taught and anticipate in advance when feedback may be needed (Archer & Hughes, 2011). Coupled with this recognition is the importance of knowing their students well and recognizing the status, confidence level, and social and emotional well-being of their students, so that feedback can be used as a lever for disrupting classroom inequities and allowing all children and youth to learn and thrive. In fact, the consistent and equitable provision of positive and constructive feedback is among the most powerful practices which an educator will undertake (Graham et al., 2012; Hattie & Timperley, 2007).

## Cultural Considerations

Effective educators take care to provide meaningful culturally appropriate feedback to all students. Because they hold high expectations for their students and take steps to ensure that all students meet their learning goals, they acknowledge the strengths and assets their students bring to their work and select critical skills for meeting learning goals. They explain, in student-friendly language, the rationale for the feedback and steps needed for improvement. They check for understanding and model if needed. Educators also consider intersectional backgrounds, experiences, learning preferences, and classroom dynamics when providing public or private feedback.

Use of feedback can also help build relationships between teachers and students with student cultural identity at the core. An educator who knows a student well is in a positive position to leverage the knowledge of their culture, language, faith, athletic or other interests to craft feedback that further provides motivation, inspiration, and relationship-building and affirming messages. Using feedback based on students' cultural background or out of school interests is a fantastic opportunity to build the educator-student relationship and develop momentum that extends to academic pursuits.

# Examples in Practice

### Elementary

*During math class, Ms. Johnson has one student who is struggling to complete two-digit addition problems. She knows that she needs to provide immediate positive feedback that will help him reach his addition goal. This student has already demonstrated success with adding two-digits with regrouping, but is working left to right today, rather than starting in the ones place. Ms. Johnson pointed out that he was correctly adding the problems without regrouping but provided the feedback that he needed to start in the ones place when adding. She took the time to remind and reteach and went through two practice problems with him. The student then completed one problem on his own and Ms. Johnson immediately provided positive feedback for correctly solving the problem. As Ms. Johnson was working with this student, the rest of the group was quietly working on their problems. When she returned to the group, she provided them with behavior specific feedback about their focus on their work. Over the next week, Ms. Johnson monitored the first student and praised him whenever she noticed that he was correctly solving the problems by starting in the ones place.*

### Secondary

*Mr. Anderson is working with his collaborative English teacher to ensure that students come in and promptly start their work at the beginning of class. They know that the class specifically struggles with getting materials out and immediately starting*

*work. Students often put their backpacks down and chat at the beginning of class instead of completing their warm up activity. The teachers begin by reviewing expectations for behavior and practicing procedures for entering the classroom and beginning work. Over the next two weeks, both teachers walk around the room providing quiet 1-1 feedback to students with reminders about either their behavior (e.g., getting materials out, sitting quietly) or their academics (e.g., questions on their warm up activity). This feedback is targeted to the specific level and background of each student to help them reach the common classroom expectations. In addition, the teacher begins a routine of meeting students at the door as they arrive to greet them personally and warmly as a way to set the tone for a positive day.*

# Research Support

Research has demonstrated that feedback can be used to help students meet learning goals, as well as to increase motivation, engagement, and independence for students (Hattie, 2008). Standards from professional organizations, including the InTASC Standards (CCSSO, 2011), CEC's preparation standards (2016), and the National Board of Professional Teaching standards (2012), emphasize the importance of feedback. Several reviews of research have found that effective instructional feedback has a powerful influence on learning and achievement (Coalition for Psychology in Schools and Education, 2015; Deans for Impact, 2015; Hattie & Timperley, 2007; Thurlings et al., 2013). Effective feedback is (a) clear, specific, explanatory, and timely; (b) addresses a faulty interpretation of content; and (c) emphasizes the goal of learning and how the student can make better progress towards that goal (Hattie & Timperley, 2012). When the student is still learning content, the educator should continue to provide explicit instruction, but feedback can be used when the student is farther along in their learning to correct misconceptions or to indicate how they can make progress towards a learning goal. Finally, research has shown that feedback is effective in improving achievement for students with disabilities and multilingual language learners (WWC, 2014),

including those who are struggling with reading (WWC, 2009a), writing (WWC, 2012), and mathematics (WWC, 2009b).

## Resources to Implement Practices

| Online Resources | |
|---|---|
| HLP video for HLP 8 and 22 | https://highleveragepractices.org/hlps-8-and-22-provide-positive-and-constructive-feedback-guide-students-learning-and-behavior |
| IRIS Center Providing Positive Feedback | https://iris.peabody.vanderbilt.edu/module/ecbm/cresource/q2/p06/ |
| TeachingWorks Providing Feedback to Students | https://library.teachingworks.org/curriculum-resources/teaching-practices/providing-feedback-to-students/ |

## Conclusion for Embedded "How to Teach" Practices for Pillar Practices

From the beginning, HLPs have been discussed as being foundational to educator practice (McLeskey et al., 2015). The practices discussed in this section are exemplars of this vision. Implementing explicit instruction is terrific on its own, but is made richer, deeper, and more effective when surrounded by the embedded practices (re) introduced here. The educator armed with cross-practice understanding of students' needs for adaptations, scaffolds, groupings of various sizes, technology options, engagement, and feedback will be that much more effective with their core practice. In addition, the reflective educator who is working within a team of educators and family members and using data will also be thoughtful about the intersectional background of the student and brainstorm creative ways to honor students' backgrounds and individual needs. This work is not easy and will not come automatically. Although the HLPs are written to be at a high level and may be self-evident to educators, there is much nuance to be mastered given the grade level or content area, and the individual students enrolled within. The best answer is to consider and implement the HLPs in constant combination, reflect on results, and make needed adjustments in collaboration with the team.

The "How to Teach" HLPs noted in this section put educators in position to succeed. From relationship and learning-sustaining feedback to use of individualized scaffolds, the effective educator recognizes teaching needs to be much more than just telling information to students. Engagement comes from not only educators' instructional decisions, but also student success and comfort. A student who is not secure in a classroom is not capable of giving the attention and cognitive energy and activity needed for success. This is why educators should use whatever tools they can find, shaped to meet students' unique interests and needs, and partner them with core and intensified instruction that is a match for student learning and behavioral needs.

# Putting It All Together

The 22 HLPs are presented across the four domains separately for reasons of coherence and logistics, but they must be considered in combination for the greatest positive effect on student academic, behavioral, and lifelong outcomes. The importance of culturally inclusive pedagogies and practices (CIPP) have been made clear throughout each domain (*Collaboration, Data-Driven Planning, Instruction in Behavior and Academics,* and *Intensify and Intervene as Needed*). To ignore student and family backgrounds and treat everyone the same is to make a foundational error in teaching and miss valuable opportunities to leverage the strengths and assets that students, families, and communities possess.

Teaching is hard, yet gratifying work, and teaching in a manner called for within this text will make the work even harder before it gets easier. Individual HLPs are not simple tasks that can be skillfully used with just a cursory level of knowledge. They represent significant, thoughtful work that educators do daily inside and outside of the classroom. Each HLP contains critical features that act in concert with each to support effective collaboration, instruction, and intervention. Select couplings of HLPs also act in concert with each other. Tapping into the "concert" analogy, an effective educator is similar to a masterful musician playing in an orchestra. Recognizing the important role they play as a member of the orchestra and in ensuring a memorable experience for their audience, effective musicians hone their craft, practice, work with a coach, and learn with and from their fellow musicians. They understand the complexity of their instrument, how the pieces and parts work together to make music and how their instrument blends with others in the orchestra.

Similarly, an effective educator recognizes and is willing to put in the work required to ensure student success. The effective educator has developed a high level of skillfulness in using each HLP and is also able to use combinations of HLPs and evidence-based practices (EBP) on a daily basis – always thinking about their students and their individual needs and diverse backgrounds (Richards-Tutor & Aceves, forthcoming). Many educators, especially those at the beginning of their careers, have not fully mastered the ability to fluidly combine HLPs and EBPs in the way that is often described as the art of teaching. Therefore, undertaking professional development around these HLPs is a good way to begin strengthening technique. As educators develop via trial and error, receipt of coaching, and the benefit of experience, their technique strengthens, and ultimately, they are able to teach in an artful manner on a daily

basis.  Inevitably, the most consummate musicians encounter a piece of music with which they might struggle or that will require the learning of new techniques to play well. The same situation holds in the classroom.  Throughout their career effective educators continue to learn and grow, building on their base of knowledge and skills and collaborating with other professional educators and families to meet the varying needs of their students.
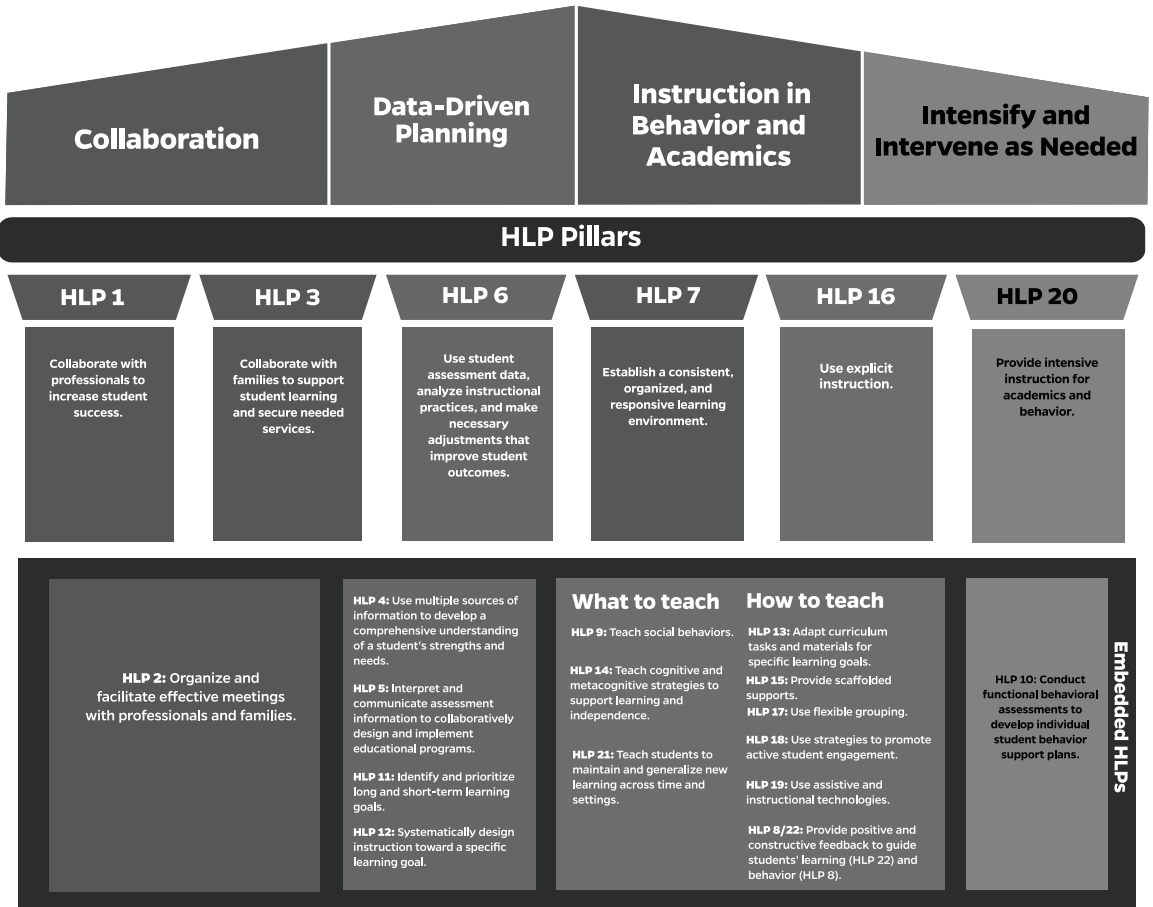
# Collaboration and Data-Driven Planning

The educator who has mastered each of the pillar and embedded practices noted within this section will still fall short of their potential if collaboration with colleagues and family members and data-driven decisions are not involved.  In reality, it is impossible to master these *Instruction in Behavior and Academics* HLPs without collaboration and data.  Collaborating with and getting to know families and caregivers broadens educators' knowledge of cultural norms and familial expectations and offers opportunities for continued communication.  Effective educators also work knowledge of students, families, and communities into their teaching in ways that demonstrate care for and interest in their students.  Collaboration with colleagues and the use of data lead to better, more informed decisions.  Experienced educators are able to glean insights from their observations of students and student work, but the use of data is crucial in verifying those insights and even more crucial with educators who are early in their career and haven't acquired the professional wisdom that experience brings.  Decisions that educators make have serious consequences for their students, and are often nuanced and require great discretion.  Collaboration and data help teachers recognize students as individuals, with complex strengths and needs that can be addressed using a range of supports and pedagogies.  Knowing which adaptations to make, which scaffolds make sense, what size groupings are needed for instruction, and identifying needed assistive or instructional technologies all relate to the teams' identification and setting of short-and long-term learning goals, and then are enacted using a systematically designed plan.  Analyzing

relevant data and making these decisions with input from a team of professionals, family members and caregivers, and students provides much needed support and a higher likelihood of success.

Beyond planning, ongoing data collection alongside colleagues informs the need for different amounts of explicit instruction and behavioral lessons.  The effective educator is constantly evaluating the impact of their instruction on student performance and adjusting as needed.  This need for persistent reflection and adjustment is why simply reciting the aspects of explicit instruction and other HLPs is not enough for success – educators need a deep understanding of how practices work together, and need to morph given unique situations. Relatedly, educators must consider students' cultural and linguistic backgrounds, and how those backgrounds intersect with their unique learning needs given the curriculum.  While difficult, the HLPs provide a roadmap for success.

# Intensify and Intervene as Needed

The final domain of the refreshed *HLPs for Students with Disabilities* is the *Intensify and Intervene as Needed* domain, and includes the pillar practice HLP 20, Provide Intensive Instruction and the embedded practice, HLP 10, Conduct Functional Behavioral Assessments to Develop Individual Student Behavior Support Plans.  Even before presented in the forthcoming section, we hope what you have read up to this point puts you in the mindset that collaboration, data, and high-quality instruction will put the effective teacher in an outstanding position to use these intensive practices for students in need.  The same pillar and embedded practices from Domain 3 are called upon for use in Domain 4 when intensifying instruction.  This includes use of small groups, deployment of further adaptations and scaffolds, delivery of more specific feedback, and calling upon specialized technologies that facilitate access and learning success.

## Collaboration

## Data-Driven Planning

## Instruction in Behavior and Academics

## Intensify and Intervene as Needed

## HLP Pillars

### HLP 1
Collaborate with professionals to increase student success.

### HLP 3
Collaborate with families to support student learning and secure needed services.

### HLP 6
Use student assessment data, analyze instructional practices, and make necessary adjustments that improve student outcomes.

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

### HLP 16
Use explicit instruction.

### HLP 20
Provide intensive instruction for academics and behavior.

**HLP 2:** Organize and facilitate effective meetings with professionals and families.

**HLP 4:** Use multiple sources of information to develop a comprehensive understanding of a student's strengths and needs.

**HLP 5:** Interpret and communicate assessment information to collaboratively design and implement educational programs.

**HLP 11:** Identify and prioritize long and short-term learning goals.

**HLP 12:** Systematically design instruction toward a specific learning goal.

### What to teach

**HLP 9:** Teach social behaviors.

**HLP 14:** Teach cognitive and metacognitive strategies to support learning and independence.

**HLP 21:** Teach students to maintain and generalize new learning across time and settings.

### How to teach

**HLP 13:** Adapt curriculum tasks and materials for specific learning goals.
**HLP 15:** Provide scaffolded supports.
**HLP 17:** Use flexible grouping.

**HLP 18:** Use strategies to promote active student engagement.

**HLP 19:** Use assistive and instructional technologies.

**HLP 8/22:** Provide positive and constructive feedback to guide students' learning (HLP 22) and behavior (HLP 8).

HLP 10: Conduct functional behavioral assessments to develop individual student behavior support plans.

**Embedded HLPs**

# DOMAIN FOUR: INTENSIFY AND INTERVENE AS NEEDED

Lindsey Hayes, American Institutes for Research
Shanna Hirsch, Clemson University
Timothy J. Lewis, University of Missouri
Allison Bruhn, University of Iowa
Kathleen M. Randolph, Texas State University

**HLP Pillar**

**HLP 20**

Provide intensive instruction for academics and behavior.

**Embedded HLP**

**HLP 10:** Conduct functional behavioral assessments to develop individual student behavior plans.

# Domain Overview

Even when HLPs are implemented purposefully, consistently, and effectively within core instruction, some students with disabilities will require additional support to achieve their academic and behavioral goals. For this reason, the updated HLP framework includes a new domain for HLPs to *Intensify and Intervene as Needed*. Creating a separate domain for intensifying and intervening reinforces the importance of a full continuum of instructional supports and services for students with disabilities. Furthermore, the creation of a new domain recognizes that educators need a specialized set of skills for providing intensive supports that builds from the HLPs from the first three domains.

The *Intensify and Intervene as Needed* domain is comprised of one **Pillar Practice**, **HLP 20**: Provide Intensive Instruction for Academics and Behavior and one **Embedded Practice**, **HLP 10**: Conduct Functional Behavioral Assessments to Develop Individual Student Behavior Support Plans. Pillar Practices are the most essential HLPs for educators to initially master and implement while Embedded Practices are necessary to adequately support pillar practices. Both HLPs have retained their original wording, with the notable change of specifying that intensive instruction applies to both academics and behavior. See *Original HLP Framework* and *Updated HLP Framework* (next page).

The HLPs within the intensify and intervene domain adhere to several guiding principles. First, these HLPs connect with and build on all other HLPs. To effectively implement the HLPs within the intensify and intervene domain, educators must use collaboration, data-driven planning, and instructional HLPs. For example, intensifying and intervening requires educators to collaborate with intervention team members, collect data to understand student needs, and design and carry out plans to address those needs. Crucially, when supporting students with intensive learning and behavioral needs, educators not only need to be able to implement the full range of HLPs, but they also need to be able to systematically intensify their use of those HLPs to match students' intersectional needs (e.g., language, race/ethnicity, strengths, identity, etc.) through the integration of culturally inclusive pedagogies and practices (CIPP). In other words, the HLPs in the intensify and intervene domain build from intensified implementation of HLPs in the domains of *Collaboration, Data-Driven Planning,* and *Instruction in Behavior and Academic*s.

Second, HLPs within the intensify and intervene domain align with schoolwide tiered system of supports. In a tiered system of support, the highest level of support is intensive intervention, commonly referred to as Tier 3 intervention. Even when delivered with fidelity, Tier 1 core instruction and Tier 2 supplemental intervention may not be sufficient to meet some students' academic, behavioral, or intersectional needs. Tier 3 intensive intervention is targeted to students who, according to data, are not making adequate progress in their current instructional program and would benefit from more intensive supports. This includes students with disabilities who are not making adequate progress in the general education curriculum or their IEP goals. The HLPs in the intensify and intervene domain are designed to support Tier 3 intervention for students with the most intensive needs.

Finally, although HLPs are intended for use by all educators, it is important to note that the HLPs in this domain are more likely to be implemented by special educators, interventionists, or other specialists who have extensive training to work with students with significant and persistent learning and/or behavioral needs. The HLPs in the intensify and intervene domain assume competency in skills (for example, functional behavioral assessment) that are typically not included in the preparation of general educators. **Educators implementing HLPs in the intensify and intervene domain need specialized, technical knowledge and skills to develop individualized, data-driven support plans and instructional programs for students**.

*Culturally inclusive pedagogies and practices* (CIPP) are those theories and practices that have centered multiple layers of sociocultural diversity and understanding in the educational sphere. That is, considering the wholeness of context, content, and constructs (e.g., people, resources, environments, etc.) that intersect and interact in the education space and influence life-centered outcomes. CIPP challenges deficit-based understandings of disability, "presumes competence" (Biklen & Burke, 2006), and interrogates intersectional oppressions.

| Original HLP Framework |
| --- |
| HLP 20: Provide intensive instruction. |
| HLP 10: Conduct functional behavioral assessments to develop individual student behavior support plans. |

| Updated HLP Framework |
| --- |
| Pillar HLP 20: Provide intensive instruction *for academics and behavior*.<br><br>    Embedded HLP 10: Conduct functional behavioral assessments to develop individual student behavior support plans |

CHAPTER TEN

# Pillar and Embedded Practices for Intensify and Intervene as Needed

| Pillar HLP 20 | Provide intensive instruction for academics and behavior. |
|---|---|
| Educators match the intensity of instruction to the student's learning and behavioral needs. Intensive instruction involves working with students with similar needs on a small number of high priority, clearly defined skills or concepts related to academics and/or behavior. Educators group students based on common needs; clearly define learning or behavioral goals; and use systematic, explicit, and well-paced instruction grounded in culturally inclusive pedagogies and practices (CIPP).  They frequently monitor progress using validated measures to assess students' responsiveness and make adjustments as needed.  Within intensive instruction, students have frequent and varied opportunities to respond and receive immediate, corrective feedback with educators and peers to practice what they are learning. | |

## Brief Description

Intensive instruction refers to a set of research-based strategies and tools used to individualize supports for students with significant and persistent learning and/or behavioral needs when less intensive supports have not been effective. Intensive instruction is typically provided at Tier 3 within a schoolwide multi-tiered system of supports and is aimed at students for whom research-based Tier 1 and Tier 2 supports were insufficient to help them make adequate progress within the general education curriculum and/or their IEP goals.

Tier 3 intensive instruction is data-driven, highly focused, and culturally inclusive. Instruction typically targets the foundational academic skills or concepts that students need to access

core curriculum (e.g., phonemic awareness, comprehension, math problem solving) or may focus on explicitly teaching students' social, emotional, and behavioral skills needed for success in school and the community.  Instruction is delivered to small groups of students (typically no more than three, if feasible) with similar learning or behavioral needs.

Intensive instruction draws on HLPs from the domains of *Collaboration*, *Data-Driven Planning*, and *Instruction in Behavior and Academics* to create a comprehensive set of supports targeted to learners with the most intensive needs.  To enact intensive instruction, educators combine and systematically intensify HLPs based on individual student's needs. Although highly individualized, effective intensive instruction has several essential components that

**Table 10.1** *Essential Components of Intensive Instruction*

| Essential Component of Intensive Instruction | Description | Connection to HLPs |
|---|---|---|
| 1. Clearly defined learning goals | Learning goals are specific, measurable, achievable, relevant, and time-based. | 11 |
| 2. Systematic, explicit, and well-paced instruction | Instruction is planned, structured, and sequenced to promote learner engagement and understanding. | 12, 16, 18 |
| 3. Frequent progress monitoring | Learner progress is monitored and instruction is adjusted according to data. | 4, 5, 6 |
| 4. Opportunities to practice and respond | Learners have frequent and varied opportunities to practice new skills and respond to what they are learning with educators and peers. | 15, 18, 19, 21 |
| 5. Opportunities for feedback | Learners receive immediate corrective feedback on learning tasks. | 8 and 22 |

reflect key HLPs in other domains (Nagro et al., 2023). Table 10.1 summarizes the essential components of intensive instruction and their connection to other HLPs.

To determine whether a student needs intensive instruction, educators use multiple sources of data (e.g., progress monitoring data, diagnostic data) to evaluate whether the student's current level of instruction is meeting their needs. For students needing additional support, data-based individualization offers a starting point and process for designing, delivering, assessing, and adapting intensive instruction. Data-based individualization (DBI) is a research-based approach for systematically intensifying academic and behavioral supports for students with significant and persistent learning and/or behavioral needs (National Center on Intensive Intervention, 2013).

DBI helps educators decide when and how to intensify instruction for an individual student through ongoing analysis of data. The DBI process follows these steps:

**Step 1: Deliver secondary intervention with fidelity.** The first step of the DBI process is to implement a standardized, evidence-based program or practice (i.e., a Tier 2 intervention) that targets a specific skill or set of skills matched to students' intersectional needs or the function of their behavior (e.g., phonemic awareness, social skills). When delivered with culturally inclusive fidelity, Tier 2 intervention should meet the needs of most students who require intervention, reducing the number who need intensive support. For students needing additional intervention, Tier 2 intervention serves as a starting point from which educators can intensify instruction via the DBI process.

**Step 2: Collect and review progress monitoring data with validated assessments.** Throughout the DBI process, educators use frequent assessments to monitor the effectiveness of instruction. To assess progress in this way, educators develop a progress monitoring plan that outlines the progress monitoring assessment tool, appropriate student goals, and the frequency of data collection and review. Once collected, data

are graphed and evaluated against the student's academic or behavioral goal(s) to determine whether they are making sufficient progress.

**Step 3: Review diagnostic data.** When progress monitoring data indicate that a student is not making sufficient progress, the educator may review other diagnostic data sources to learn more about the student's intersectional needs. Diagnostic data can include informal records such as classroom observations, parent and educator interviews, or review of student work samples (HLP 1, 3) but may also include formal standardized assessments if appropriate. Functional behavioral assessment (FBA) may also be used as a source of diagnostic data for students with behavior needs (HLP 10). The educator or intervention team may then use these data to develop a hypothesis about why the student is not responding to instruction, which informs decisions about how to adjust the student's program.

**Step 4: Adapt instruction.** Informed by their data-driven hypothesis, educators or intervention teams plan adaptations to adjust the amount, focus, and delivery of intensive instruction along a number of dimensions (described in the Taxonomy of Intervention Intensity; Fuchs et al., 2017). Examples of instructional adaptations can include but are not limited to:

- Increasing the duration or frequency of the intervention (e.g., changing dosage);
- Strengthening the match between the skills targeted during the intervention and the student's need (e.g., ensuring alignment; HLP 12);

- Incorporating additional principles of explicit instruction such as modeling, guided practice, and frequent feedback (e.g., ensuring comprehensiveness of instruction; HLP 16);
- Integrating strategies to support self-monitoring and self-regulation (e.g., integrating academic and behavior supports; HLP 14);
- Supporting students to generalize academic or behavioral skills to other settings (e.g.; attention to transfer; HLP 21);
- Providing increased opportunities for feedback across different modalities (e.g., verbal, written, individual, group) (HLP 22);
- Altering the learning environment (HLP 7); and
- Ensuring that instruction uses CIPP appropriate for the student based on their background and intersectional identity.

Instructional adaptations should always be driven by a data-based hypothesis about the potential cause(s) of the student's academic difficulties or the function of their behavior.

**Step 5: Continue progress monitoring.** DBI is an iterative, ongoing process. After making instructional adjustments, educators continue progress monitoring to determine the effectiveness of the adaptation(s). If the student is making adequate progress, instruction continues in its current form. If the student is still not making adequate progress, the educator may collect additional diagnostic data and/or consider other instructional adaptations.

Intensive instruction ensures that students with the most significant and persistent needs receive data-driven, highly focused, individualized supports to help them progress towards their learning and behavioral goals.

# Cultural Considerations

Throughout the DBI process, professionals actively consider how these carefully orchestrated instructional moves and decisions consider a student's unique cultural, linguistic, familial, and learning background while maintaining high expectations for student success. Table 10.2 provides educators with guiding prompts throughout each step of the DBI Process.

# Examples in Practice

### Elementary

*Ms. Lopez is a third-grade reading intervention educator responsible for delivering a daily 30-minute reading intervention. She uses a validated Tier 2 phonics intervention program mandated by her district. Ms. Lopez administers weekly progress monitoring assessments and compares her students' rate of improvement to their goals (HLP 11). One student, Maria, is a multilingual learner identified with a specific learning disability in reading. Maria is not making progress at a sufficient rate to meet her IEP goal by the end of the term. To inform how she will help Maria, Ms. Lopez gathers formal and informal diagnostic data from a variety of sources (HLP 4) in both her native language and in English including Maria's performance on a phonics inventory and high-frequency word reading list. Because Maria is an multilingual learner, Ms. Lopez also conducts a home language survey with Maria's parents (HLP 3) to learn more about Maria's native language development and collaborates with the school's multilingual support educator (HLP 1) to analyze and interpret Maria's scores from the state-mandated language proficiency assessment. Based on multiple sources of diagnostic data that show that Maria struggles with phonics in both English and her native language, Ms. Lopez hypothesizes that Maria may need more comprehensive, explicit, culturally inclusive instruction to accelerate her progress. Ms. Lopez intensifies her instruction to include more elements of explicit instruction (HLP 16) such as breaking instruction into smaller*

*chunks and incorporating additional modeling and guided practice. She also increases the frequency and variety of opportunities that Maria has to respond to questions during class (HLP 18) and the frequency with which she gives Maria feedback (HLP 8 and 22). She ensures that all elements of her instruction are culturally inclusive and representative of Maria's intersectional identity. After implementing the intensified intervention for four weeks, Ms. Lopez sees that Maria's progress monitoring data has improved and she is now progressing at a rate to meet her end of term goal. Ms. Lopez continues to administer progress monitoring assessments on a weekly basis to ensure Maria remains on track.*

### Secondary

*Mr. Simon is a middle school special education resource teacher. He coordinates his school's behavior intervention program, which is based on a "check-in/check-out" approach in which students meet with a mentor before and after school to review behavior goals, identify strategies to meet those goals, and discuss daily progress (Hawken et al., 2021). One of Mr. Simon's mentees, Xavier, is an eighth-grade student who is highly social and well-liked by his peers, but exhibits high-frequency, high-intensity attention-seeking behaviors that routinely disrupt classroom instruction. First, Mr. Simon engages in self-reflection to determine that his evaluations of Xavier's behaviors are not related to any cultural differences or biases. Then, Mr. Simon analyzes the data from Xavier's daily progress reports and determines that he is not on track to meet his goals of reducing attention-seeking behaviors and replacing them with on-task behaviors. To gather more diagnostic data, Mr. Simon conducts classroom observations and interviews Xavier, his teachers, and his grandmother with whom he lives (HLP 1 and 3). Based on this information, Mr. Simon hypothesizes that Xavier may benefit from an additional midday check-in (i.e., increasing the dosage of the intervention) (HLP 4). After implementing this change for two weeks, Mr. Johnson notes that Xavier has not made progress towards his goal. Mr. Simon decides to collect additional diagnostic data,*

**Table 10.2** *Cultural Considerations throughout DBI Process*

| Step One | Deliver Secondary Intervention with Fidelity |
|---|---|

- In consultation with the IEP team, consider the appropriateness of the evidence-based intervention selected given the student's unique background and needs.
- Collaborate with others, to brainstorm and incorporate appropriate accommodations to the intervention (e.g., using primary language with multilingual learners as appropriate) without compromising the integrity of the intervention.
- Actively enhance intervention with strategies (e.g., collaborative/peer instruction) and materials (e.g., materials that incorporate student's interests, strengths and culture) known to be effective with students from similar backgrounds.

| Step Two | Collect and Review Progress Monitoring Data with Validated Assessments |
|---|---|

- Select appropriate progress monitoring tools and benchmark guidelines known to be appropriate for students from similar backgrounds.
- Jointly determine frequency for communicating progress with professionals and families (e.g., daily, weekly, bimonthly) depending on the skill and level of concern.
- Jointly develop accessible methods of communicating progress (e.g., template, email) to easily summarize progress data, using jargon free/accessible language.

| Step Three | Review Diagnostic Data |
|---|---|

- Consider the appropriateness and rigor of the instruction and supports provided to the individual student given their strengths and needs.
- Collaborate with educators who have the necessary expertise and background (e.g., supporting multilingual learners) to understand data within the context of a student's complete program of support and services.
- Collaborate with families to better understand and interpret diagnostic data taking into consideration a student's unique strengths and needs.

| Step Four | Adapt Instruction |
|---|---|

- Collaborate with family members and other educators as appropriate, to ensure adaptations integrate content, methods, and material that are meaningful and relevant to a student's interests and culture.
- For mulitlingual learners, incorporate students' primary language as appropriate to ensure understanding and make necessary comparisons between English and primary language to facilitate learning.
- Select adaptations, in consultation with family members and educator partners, that consider how best to maximize family participation and use new learned skills within real world contexts.

| Step Five | Continue Progress Monitoring |
|---|---|

- Keep in close and regular contact with family members and educator partners, to determine when and how to pivot given agreed upon benchmarks and evidence of progress or lack of progress to ensure meaningful and timely gains.
- Consider all relevant dimensions of intervention intensity and other factors (e.g., interventionist, instructional material) to help explain a student's slow or lack of progress to help inform how to make necessary adjustments.

*this time collaborating with his school psychologist to conduct a functional behavioral assessment (FBA; HLP 10). The hypothesis resulting from the FBA is that Xavier engages in attention-seeking behaviors, especially in his reading and math classes, to avoid academic demands and obtain assistance from his teachers. Based on this information, Mr. Simon intensifies the behavioral supports provided to Xavier by supporting his teachers to implement a behavior intervention plan in which they more frequently check for understanding during content instruction while prompting Xavier to use self-regulation strategies when he becomes frustrated by difficult academic tasks (HLP 1). Mr. Simon also explicitly teaches Xavier how to ask for help during class (HLP 9) and practices these strategies with him during check-ins to help him use these strategies in new settings (HLP 21). After two weeks, Xavier's daily progress report data indicate that he has reduced instances of the target behaviors and is on track to meet his goal.*

## Research Support

Students, including those with disabilities, who do not make sufficient progress in the general education setting, even with supplemental intervention, may require highly intensified, individualized instruction to meet their learning and/or behavioral needs. Although a schoolwide tiered system of supports can reduce the number of students requiring academic or behavioral intervention, approximately 3-5% of students will still need intensive supports (NCII, 2013). In some cases, these students may require as many as 10 to 30 times as much practice as their peers to learn and retain new information (Gersten et al., 2009). Additionally, students requiring this level of intervention often experience complex, co-occurring academic and behavioral needs that require more intensive instructional strategies (Kuchle & Riley-Tillman, 2019).

A recent systematic review of meta-analyses found that out of all the HLPs, intensive instruction has the greatest quantity of evidence supporting its effectiveness with students with disabilities (Nelson et al., 2022). Furthermore, the review found some level of evidence demonstrating the effectiveness of intensive instruction for students in every disability category and every domain of interest (e.g., reading, mathematics, behavior) with the exception of writing. The robust amount of research supporting intensive instruction as an effective strategy for students with disabilities underlines the importance of providing a full continuum of supports to meet students' needs (Lemons et al., 2018) and affirms its importance within the HLP framework.

Other recent research syntheses have focused on the processes that support the provision of intensive instruction, such as data-based individualization and data-based decision making. For example, a meta-analysis of studies found that use of data-based individualization with K-12 students with intensive learning needs (including those with disabilities) had statistically significant positive effects on student performance across the domains of reading, mathematics, and spelling/writing (Jung et al., 2018). Further narrative synthesis of the included studies found that educator supports are critically important for effective data-based individualization (Fuchs et al., 2021). Another meta-analysis found that data-based decision making, defined as using data to make decisions about when and how to adjust instruction for individual students, had a positive overall effect on reading intervention outcomes for struggling K-12 readers (Filderman, et al., 2018). These research syntheses and their

To provide Intensive Instruction, educators use data-driven decision making to systematically intensify HLPs from the domains of Collaboration, Data-Driven Planning, and Instruction based on an individual student's needs.

associated studies offer strong support for using data to drive decisions about intensifying instruction for individual students.

# Conclusion

Although many students with disabilities make adequate progress with research-validated interventions (e.g., Tier 2 supplemental intervention), some will require a more intensive and individualized approach. Effective intensive instruction features clear learning goals, systematic and explicit instruction, regular progress monitoring, frequent opportunities to respond, and immediate corrective feedback. Coupling these instructional strategies with data-driven decision making within the context of an evidence-based, systematic framework for intensifying instruction such as DBI can help promote positive outcomes for students (Fuchs et al., 2014).

When designing and implementing effective intensive intervention educators should constantly consider the impact of their own backgrounds, histories, and ideas in limiting the amount of potential biases that could influence academic or behavioral decision making. This process can be initiated through honest self-reflection, self-learning, and self-evaluation of one's personal beliefs, experiences, and ideas. Lastly, it is important to remember to intentionally integrate CIPP regarding the tools used to measure progress and the material and methods used to ensure a student's intersectional background, strengths and individual needs are considered.

# Resources to Implement Practices

| National Center on Intensive Intervention | |
|---|---|
| Introduction to Intensive Intervention Self-Paced Module | https://intensiveintervention.org/introduction-intensive-intervention |
| Data-Based Individualization Online Learning Modules | https://intensiveintervention.org/training/online-learning-modules |
| Taxonomy of Intervention Intensity Training Materials | https://intensiveintervention.org/resource/taxonomy-intervention-intensity-training-materials |
| **IRIS Center** | |
| Intensive Intervention (Part 1): Using Data-Based Individualization To Intensify Instruction | https://iris.peabody.vanderbilt.edu/module/dbi1/ |
| Intensive Intervention (Part 2): Collecting and Analyzing Data for Data-Based Individualization | https://iris.peabody.vanderbilt.edu/module/dbi2/ |
| **HLP Videos** | |
| HLP #20: Provide Intensive Instruction | https://highleveragepractices.org/hlp-20-provide-intensive-instruction |
| **Articles, Books, Chapters** | |
| Edmonds R. Z., Gandhi, A. G., & Danielson, L. (Eds.) (2019). *Essentials of intensive intervention.* Guildford Press. | |
| Hott, B. (Ed.) (2023). *Quality instruction and intervention strategies for secondary educators.* Rowan & Littlefield. | |
| Hunter, W., Taylor, J., & Scott, L. (2022). *The mixtape volume 1: Culturally sustaining practices within MTSS featuring the everlasting mission of student engagement.* Council for Exceptional Children. | |
| Nagro, S. A., Hooks, S. D. Fraser, D. W., & Monnin, K. (2023). Provide intensive instruction. In J. McLeskey, L. Maheady, B. Billingsley, M. T. Brownell, T. J. Lewis, and S. R. Alber-Morgan (Eds.), *High leverage practices for intensive interventions* (1st ed., pp. 293–307). Routledge. https://doi.org/10.4324/9781003276876-25 | |

| Embedded HLP 10 | Conduct functional behavioral assessments to develop individual student behavior support plans. |
|---|---|

Creating individual behavior plans is an essential skill for all special educators. Key to successful behavior support planning is to conduct a functional behavioral assessment (FBA) to identify what occasions or triggers and what maintains behavior that is problematic in certain contexts. A comprehensive FBA results in a hypothesis about the "function" of the student's problem behavior. Once the function is determined, a behavior intervention plan is developed that (a) teaches the student a pro-social replacement behavior that will serve the same or similar function, (b) alters the environment to make the replacement behavior more efficient and effective than the problem behavior, (c) alters the environment to no longer allow the problem behavior to access the previous outcome, and (d) includes ongoing data collection to monitor progress.

# Brief Description

It is important that we examine behavior through a nuanced lens that takes into consideration context and each student's intersectional identity (e.g., disability type, Autism versus emotional /behavioral disorders; race/ethnicity, African-American versus Asian-American). Contextually, inappropriate behaviors or problem behaviors are defined broadly as behaviors that impede safety and a student's or others' learning and are not related to cultural differences. These behaviors may include, but are not limited to, self-injury, property destruction, physical aggression, non-compliance, or withdrawal. The behaviors perceived as problematic must be evaluated not just for impact, magnitude and intensity, but for effect and purpose of the behavior. It is feasible for students with a certain identity to withdraw from overwhelming situations as a coping mechanism while others may be withdrawing as a means of disruption. For students whose behaviors continue to persist after Tier 1 and Tier 2 interventions have been implemented with fidelity, or when patterns of problem behavior are intense and chronic, individualized function-based support allows educators to gain a better understanding of the student's behavior and the circumstances surrounding the behavior (see Horner & Sugai, 2005 for an overview of multi-tiered system of supports). Function based behavioral intervention plans are also mandated under IDEA for students with disabilities when school disciplinary actions result in repeated exclusions (Individuals with Disabilities Education Improvement Act, 2004). Function-based supports should be individualized to meet the student's

needs, keep the hypothesized function at the center, and be collaboratively developed and implemented by a collaborative team of individuals with behavioral expertise and data-collection experience (Lewis et al., 2015). An additional consideration for function-based supports is the inclusion of culturally inclusive pedagogies and practices (CIPP). The function behavior assessment (FBA) process is used to develop a hypothesis that serves as the basis of the individualized function-based support plan. Three core features of FBAs have been defined by the U.S. Department of Education (2022):

**Feature 1: Develop a clear description of the contextually inappropriate behavior or interfering behavior.** The first step is identifying the behavior(s) that warrant the FBA. As part of this process, provide a clear description (using observable, measurable, and repeatable terms) along with examples of what the behavior looks and sounds like.

**Feature 2: Collect indirect and direct data on the occurrence and non-occurrence of the behavior.** The second step is to collect direct and indirect data. Indirect data may include interviews with the student, family, and other educators, as well as behavioral rating scales, and record reviews. Direct data may include systematic student observations to gauge how often the behavior occurs, along with the times, and events that precede and follow the behavior. Recording Antecedent-Behavior-Consequence data are helpful in discerning the conditions and events that surround the behavior.

**Feature 3: Analyze data to determine trends and develop a hypothesis of the function of the behavior.** The third step is to analyze the direct and indirect data and develop a hypothesis statement that considers the function of behavior. These data provide insight into the: (a) antecedent events that likely prompt or proceed the behavior, (b) operational definition or description of the contextually inappropriate behavior, and (c) consequences or events that occur after the behavior. Possible functions of behavior include accessing attention, accessing tangibles/activities, accessing sensory, avoiding attention, avoiding tangibles/activities, and avoiding sensory input (Wood et al., 2007). Hypotheses should follow a simple list of three elements: (a) **when** (conditions that trigger behavior), (b) **the student will** (problem behavior), (c) **to get or avoid** (the maintaining outcome). A behavior may serve multiple functions, but it is helpful to consider the data and select the primary function. Once the function of the behavior(s) is hypothesized, a replacement behavior is selected that will serve the same function as the contextually inappropriate behavior. The replacement behavior is described using observable, measurable, and repeatable terms and examples of what the behavior looks and sounds like are included. In short, the replacement behavior is the desired alternative to the contextually inappropriate behavior.

The FBA leads to developing or revising a function-based support plan. Hypotheses derived from the FBA drive the development of the function-based support plan. The intervention components should be culturally inclusive and include antecedent or prevention strategies, teaching strategies such as functional-communication training, and reinforcement-based interventions. Table 10.3 provides examples of each of the key intervention strategies. Multiple strategies can be used as part of the support plan.

**Table 10.3** *Key Intervention Strategies Targeted Antecedents, Behavior, and Consequences*

| **Antecedent** or prevention strategies might include: | **Teaching** strategies might include: | **Consequence/Reinforcement-** based strategies might include: |
|---|---|---|
| • Providing choices.<br>• Environmental changes such as preferential seating near adults.<br>• Visual reminders (e.g., cues, checklists).<br>• Make curriculum accommodations.<br>• Noncontingent educator/adult attention.<br>• Planned and unplanned sensory breaks.<br>• Increased opportunities for students to respond.<br>• Provide time in school to complete homework.<br>• Setting student goal.<br>• Self-monitoring behavior and progress toward goal. | • Teach a specific academic or social skill.<br>• Teach how to request a break or how to access sensory input.<br>• Teach problem-solving strategies.<br>• Teach how to get adult attention. | • Redirect the student to the replacement behavior while minimizing reinforcement.<br>• Meets shared goals and then accesses activities with the educator and other adults in the school.<br>• Receive contingent educator attention when completing work/on task or when raising hand.<br>• Earn free time after completing work.<br>• Increase the frequency of acknowledging positive student behavior. |

Strategies listed in Table 10.3 should be adapted/adopted with consideration of age, school, and culturally inclusive contextual factors.

Once strategies are identified, teams review the baseline data (collected as part of the FBA) and develop a behavior goal or a SMART (Specific, Measurable, Achievable, Relevant, and Time-based) goal for the student.  It is important to keep in mind what educators across the school should and should not do to support the plan. Specifically, scripts should be provided to all with respect to actions they take when they see the student displaying appropriate behavior (i.e., provide the same or similar outcome as problem behavior) and what they should not do when they observe problem behavior (i.e., allow the behavior to access the current maintaining outcome).

Student progress monitoring data as well as fidelity data are key to helping the student's team adjust or continue the plan. After the plan is implemented with fidelity, the student's team meets to review the progress data and determine the next steps. These data are used to determine whether students are making sufficient progress and whether a plan needs to be revised. This may include fading the supports, generalizing the plan to other contexts, and maintaining the plan over time.

# Cultural Considerations

Educators strategically integrate cultural considerations to ensure appropriate evaluation, planning, and implementation throughout the three core features of the FBA process and contribute to developing strategies for instruction and support. Collaboration with families and expert IEP team and community members (as needed and appropriate) will be important when determining a clear description of a student's behaviors within the context of their culture and community background. This should involve deep reflection and respectful discussion of those behaviors, while checking individuals' personal biases and assumptions, and actively listening to educators, family and community members' interpretations until there is a jointly agreed upon, and culturally sensitive

interpretation of the student's behaviors. These same team members are involved in providing multiple concrete examples of direct and indirect data from across diverse settings, contexts, and situations and involved in the analysis and interpretation of the data for further hypothesis development.

Subsequently, educators jointly select culturally inclusive antecedent, teaching, and reinforcement strategies in collaboration with family members and trained educators/specialists and community members considering students' cultural and linguistic needs and strengths. Such conversations may begin by collaboratively brainstorming questions to guide strategy selection and further planning. For instance, do prevention strategies, like providing increased opportunities to respond, consider a student's language development and linguistic preferences? Are those skills selected for instruction and reinforcement (e.g., social skills) sufficiently relevant given a student's background and family routines? Such collaborative question generation should help guide the IEP team to carefully evaluate students' behavior and develop more culturally inclusive plans.

# Examples in Practice

## Elementary

*Mx. Gigliotti is an elementary special educator. They have a student on their caseload, Mariana, who has a learning disability and has been displaying increasingly unexpected behaviors in her third-grade classroom.  Mariana's behaviors are disruptive to her classmates' learning environment (e.g., pinching other students), and she is not making academic progress.  Mx. Gigliotti meets with Mariana's parents, the school psychologist, and the general educator (HLP 1, 2, 3) to gain culturally relevant background information to conduct a functional assessment to identify the function of behavior (HLP 10).  Through direct observation, data collection, and interviews, the team concludes that Mariana's behaviors escalate during math class.  Mx. Gigliotti wonders if Mariana is trying to escape from math-related*

tasks where she struggles, or if she is being reinforced by the attention gained by acting out (or both).  After data collection, the attention she receives when she disrupts the class appears to serve as the major function of behavior.  Given the information gathered, Mx. Gigliotti creates a behavior intervention plan goal for Mariana to obtain adult attention appropriately.  In addition, to support her academic needs and further support the desired behavior, the team suggests scaffolding math instruction (HLP 15), enrolling Mariana in after-school math tutoring (HLP 16, 20), frequently checking for understanding (HLP 18), and providing positive feedback (HLP 8 and 22) to confirm engagement and comprehension.  Finally, the team creates a token economy that aligns with the behavior intervention plan goal (HLP 10) to increase the probability of success, where Mariana earns tokens for small goals, and preferred culturally influenced backup reinforcers when meeting her daily goal.

### Secondary

Mr. Trujillo is a high school special education teacher and he supports students with disabilities in the general education classroom. His student, Roberto, has been displaying concerning behaviors, including property destruction and frequent verbal outbursts, since the semester started. Roberto was recommended to the student support team (HLP 1, 2) who met and recommended several Tier 1 (e.g., teaching and reinforcing clear, consistent classroom procedures, HLP 7) and Tier 2 (e.g., check-in/check-out [Filter, 2019], HLP 8 and 22) strategies and collected preliminary data on the occurrence of the problem behaviors, but they have not seen a decrease. They noticed patterns in the data, that after each instance of problem behavior Roberto was removed from the general education classroom. The team decides to obtain parent information on cultural background and permission to conduct a functional behavioral assessment (HLP 10) to identify the function of behavior (i.e., escape, attention, sensory, tangible), teach Roberto functionally equivalent replacement behaviors (HLP 9), and create a behavior plan with appropriate short- and long-term goals (HLP 11) for continued behavior supports (HLP 5, 10). Mr. Trujillo

monitor's Roberto's progress on a daily basis via a behavior checklist and communicates Roberto's progress to his family twice a week.

## Research Support

Early work on understanding the function of behavior was primarily conducted with individuals with significant cognitive impairments. Prior to and since the reauthorization of IDEA in 1997 which mandated the FBA-Behavior Intervention Plan (BIP) process for students with disabilities (34 C.F.R. § 300.530), research has been extended to students with mild disabilities as well as those at risk (e.g., Fox & Davis, 2005; Gage et al., 2012; Lewis et al., 2015).  The current knowledge base continues to underscore that function-based interventions are more efficient and effective than non-function-based interventions. Past studies comparing function- and non-function based interventions continue to demonstrate superior student improvement when function-based interventions are used (e.g., Payne et al., 2007).  In addition, research has shown the logic of using FBA to guide intervention development impacts a wide variety of behaviors among an array of disabilities, including those with significant developmental or cognitive delays  (e.g., Bruhn et al., 2015: Bruhn & Lewis, 2015; U.S. Department of Education, 2016). While conducting FBAs can seem difficult and complex, research also has documented that school-based practitioners can develop and implement FBA driven behavior support plans with professional development and technical assistance (e.g., Hirsch et al., 2023).

## Conclusion

Contextually inappropriate behaviors or problem behaviors will be a challenge all special educators face. Building on a robust body of research conducted over 5 decades, the use of FBAs, particularly those that are culturally attuned (Moreno et al., 2014), to determine the possible function of problem behavior to guide and design behavior intervention plans has led to the FBA-BIP process being designated a high leverage practice (Pollack & Lloyd, 2023). While the field of special

education and related disciplines has not delineated a clearly agreed upon set of essential steps and features of high-quality FBAs and related BIPs (see Lewis et al., 2017), the key features outlined in this chapter with the addition of CIPP, and the related resources listed below, should provide special educators a strong first step in addressing problem behavior. The key is to understand that behavior is functionally related to the teaching environment. A functional relationship implies that behavior will occur predictably under specific environmental contexts. The purpose of conducting an FBA is to identify those patterns and then create a behavior intervention plan that teaches a pro-social behavior that results in the same or similar function and alters the environment to decrease the likelihood of the problem behavior and increase the likelihood of the functionally equivalent replacement behavior.

# Resources to Implement Practices

| Iris Center Resources | |
|---|---|
| IRIS Functional Behavioral Assessment Modules | https://iris.peabody.vanderbilt.edu/module/fba |
| **Center on Positive Behavior Interventions and Supports FBA Resources** | |
| Basic FBA to BSP Trainer's Manual | https://www.pbis.org/resource/basic-fba-to-bsp-trainers-manual |
| Practical Functional Behavioral Assessment Training Manual for School-Based Personnel | https://www.pbis.org/resource/practical-functional-behavioral-assessment-training-manual-for-school-based-personnel |
| Tier 3 Brief Functional Behavioral Assessment Guide | https://www.pbis.org/resource/tier-3-brief-functional-behavior-assessment-fba-guide |
| **More Resources** | |
| Positive Supports for Behavior and Discipline (Office of Special Education Programs, U.S. Department of Education) | https://osepideasthatwork.org/federal-resources-stakeholders/topical-issues/positive-supports-behavior-and-discipline |
| Basic FBA to BIP (2023) | https://basicfba.com |
| Lewis, T. J., Hatton, H. L., Jorgenson, C., & Maynard, D. (2017). What beginning special educators need to know about conducting functional behavioral assessments. *TEACHING Exceptional Children*, 49, 231–238. https://doi.org/10.1177/0040059917690885 | |
| Pollack, M. S., & Lloyd, B. P. (2023). Conduct functional behavioral assessments to develop individual student behavior support plans. In J. McLeskey, L. Maheady, B. Billingsley, M. Brownell, T.J. Lewis, & S. R. Alber-Morgan, (Eds.), *High leaverage practices for intensive interventions*. (1st ed., pp.149–162). Routledge. | |

# Putting It All Together

As demonstrated in the application examples, the HLPs in the *Intensify and Intervene* domain integrate HLPs across the *Collaboration, Data-Driven Planning,* and *Instruction* domains. To provide intensive instruction (HLP 20) and conduct functional behavioral assessments to develop individual support plans (HLP 10), educators must enact HLPs across all domains and then systematically intensify their use of these practices to match students' academic, behavioral, and intersectional needs. Because of the specialized skills required to deliver intensive instruction and conduct functional behavioral assessments, the intensify and intervene HLPs are more likely to be implemented by special educators or interventionists who support students with significant needs. The following sections summarize how HLPs in *Collaboration, Data-Driven Planning,* and *Instruction* are used to *Intensify and Intervene.*

## Collaboration

To provide effective Tier 3 supports, special educators must be skilled collaborators. Many schools have intervention teams or other teaming structures that are responsible for coordinating a schoolwide tiered system of supports and monitoring student-level progress. Special educators collaborate with other school professionals such as general educators and specialized instructional support personnel to gather data, develop intervention plans, and carry out plans for individual students (HLP 1). Often, special educators are the ones responsible for coordinating intervention plans and providing support to their colleagues to ensure that plans are carried out with fidelity. Additionally, special educators partner with families to develop intervention plans that are responsive to student needs (HLP 3). Strong partnerships with families ensure that CIPP are integrated throughout the student's academic and behavioral supports.

## Data-Driven Planning

The ability to collect, analyze, interpret, and communicate about data is an essential competency for special educators charged with developing intervention plans and delivering intensive instruction. Educators must be able to use multiple sources of data to develop a comprehensive understanding of a students' strengths and needs (HLP 4), including progress monitoring, diagnostic data, and formative and summative assessment data. In connection with the Collaboration HLPs, special educators work with a variety of partners to collaboratively design and implement intervention plans (HLP 5). And finally, to intensify and individualize interventions, educators use data to adjust their instruction to respond to student needs (HLP 6). Data-based individualization offers a framework to help educators to systematically decide when and how to intensify instruction for an

individual student through ongoing, iterative cycles of data collection and analysis.

## Instruction in Behavior and Academics

Effective use of the instructional HLPs is an essential precursor to effective intensive instruction. Intensive instruction takes the HLPs from the Instruction domain and systematically intensifies those practices. Although intensive instruction is highly personalized for each student, there are some essential features that ensure that students receive comprehensive, effective intensive instruction. For example, systematic, explicit, engaging, culturally inclusive instruction is the foundation of quality intensive instruction (HLPs 12, 16, 18). Educators must set clearly defined learning goals (HLP 11) and regularly monitor students' progress towards those goals (HLPs 4 and 6). Educators should provide varied opportunities for practice (HLP 15), frequent opportunities for students to engage with their teachers and peers (HLP 18), and immediate corrective feedback on learning tasks (HLP 8 and 22).

Together, the *Collaboration, Data-Driven Planning,* and *Instruction* HLPs can be combined and *Intensify and Intervene as Needed* to support students with significant learning and behavioral needs.

# Final Thoughts

**Michael J. Kennedy**
**Terese C. Aceves**
**Meg Kamman**
**Erica McCray**
**Laurie VanderPloeg**

This updated and revised text introduced the terms *Pillar* and *Embedded Practices,* and *Culturally Inclusive Pedagogies and Practices* (CIPP). The designation of Pillar Practices arose as a way to identify key, or most valuable practices amongst the 22 HLPs. Decisions about which of the 22 HLPs would receive this designation were made based on experts' evaluations and considerations of not only the empirical evidence base, but also the day-to-day work of educators. Leveraging ten years of hindsight, the story of which HLPs earned Pillar status is told across the headings of the four domains: (a) *Collaboration*, (b) *Data-Driven Planning,* (c) *Instruction in Behavior and Academics*, and (d) *Intensify and Intervene as Needed*. In other words: All educators must collaborate with colleagues and caregivers using data to provide behavioral and instructional supports students need, regardless of intensity. Sounds easy, right? Obviously that sentence is a mouthful and implies all manner of pedagogical and professional skills to be deployed. That said, the six essential skills of collaborating with colleagues and families, continuously using data to make informed planning decisions, creating an organized and responsive learning environment, using explicit instruction, and intensifying supports for some students must be implemented well as the foundation for the full

22 HLPs. Those six are still loaded with nuance to be considered given various age and grade levels or content areas. This is one reason why the authors of this text kept the Embedded Practices as supports to interpret and implement the Pillar HLPs across various settings to support learning, behavioral, and other needs for students with and without disabilities. After mastery of the Pillar Practices, the Embedded Practices are a good next step towards developing a well-rounded educator that can support the needs of students with disabilities and other struggling learners.

The original developers of the HLP concept related to students with disabilities called for these practices to be taught within educator preparation programs, core to practice, and relevant across age and grade levels (McLeskey et al., 2017). The concept of Pillar Practices advances this vision and promise to the field that there are indeed a core set of practices that can set up an educator and their students for ongoing success. The concept of CIPP further enriches the status and potential impact of Pillar Practices. Scholars have long criticized half-measures and "good intentions" of educators implementing culturally responsive practices as an afterthought (Evans et al., 2020). Instead, CIPP should be chief amongst thinking when planning

and implementing instruction and other supports for students, and not tacked on or squeezed in as if using a shoehorn (Ladson-Billings, 2014).

Within the *HLPs for Students with Disabilities*, CIPP are utilized within each practice, and across practices. As noted in the preceding chapters, CIPP take different formats depending on the domain and practice, but always retain at their core an emphasis on the needs of the individual student. CIPP goes further, and brings nuance and perspective needed to reflect on the unique cultural, linguistic, and ethnic backgrounds of students as well as their disability. These intersecting points are often challenging to understand, especially when the educator(s) is from a different background – but this is what makes use of CIPP so very important. If the culturally inclusive pedagogies and practices advocated within this text are not clear and obvious to your daily work–whether you teach reading writing, math, science, or physical education–then the path ahead is clear: Engage in professional development and personal reflection situated within your own curriculum and context. Find expert, seasoned colleagues who can provide mentoring and feedback on your planning and practice. This work is challenging, but essential – and leaders in the field, such as authors of this text, offer a roadmap for success.

## Final Reflections

Much like the 2015 meeting at CEC Headquarters where the *HLPs for Special Education* were first developed, a group of field leaders gathered in late summer of 2023 at new CEC Headquarters in Arlington, VA, to discuss the opportunity and need to "refresh" the original practices. It was at this meeting where the concept of identifying pillar practices was born, and the emphasis on CIPP across the HLPs was cemented. In the months since, other scholars and practitioner voices were brought into the conversation, and this text took shape. The process has been fascinating and extremely valuable to see how well-established ideas can be rethought and reinterpreted.

This text also reflects thousands of hours of collective work from experts all around the country. These experts have been enacting the HLPs in work with educator preparation programs, states, districts, schools, individual educators, students, and families for nearly ten years. Their individual and collective wisdom and research evidence helped shape this updated and revised text and generated the new organization and supports. We look forward to your use and feedback on this newly refreshed set of *HLPs for Students with Disabilities* in the coming years and moving forward as a field to create a better future for indivisuals with disabilities, their families, and others in need.

# Key Resources

| Digital | |
|---|---|
| High Leverage Practices | www.highleveragepractices.org |
| Council for Exceptional Children | www.exceptionalchildren.org |
| CEEDAR | https://ceedar.education.ufl.edu |
| IRIS Center | https://iris.peabody.vanderbilt.edu |
| Center for Innovation, Design, and Digital Learning | https://ciddl.org |
| Positive Behavioral Interventions and Supports | www.pbis.org |
| Improving Literacy | www.improvingliteracy.org |
| Promoting Progress | www.promotingprogress.org |
| Intensive Intervention | www.intensiveintervention.org |
| National Center on Accessible Educational Materials for Learning | www.aem.cast.org |
| HLPs and Related Content | www.vimeo.com/mjk |
| Explicit Instruction | www.explicitinstruction.org |
| Teaching Works | www.teachingworks.org |
| Books | |
| Pennington, R., Ault, M. J., Courtade, G., Jameson, J. M., & Ruppar, A. (Eds.). (2023). *High leverage practices and students with extensive support needs*. New York: Routledge. | |
| McLeskey, J., Maheady, L., Billingsley, B., Brownell, M. T., Lewis, T. J., & Alber-Morgan, S. R. (Eds.). (2023). *High leverage practices for intensive interventions.* New York: Routledge. | |
| McLeskey, J., Maheady, L., Billingsley, B., Brownell, M. T., & Lewis, T. J. (2022). *High leverage practices for inclusive classrooms. (2nd Edition).* New York: Routledge. | |

# References

## Preface & Chapter 1 References

Ball, D., & Forzani, F. (2009). The work of teaching and the challenge of teacher education. *Journal of Teacher Education, 60*, 497-511. https://doi.org/10.1177/0022487109348479

Billingsley, B., Bettini, E., & Jones, N. D. (2019). Supporting special education teacher induction through high-leverage practices. *Remedial and Special Education, 40*, 365-379. https://doi.org/10.1177/0741932518816826

Billingsley, B., & Bettini, E. (2019). Special education teacher attrition and retention: A review of the literature. *Review of Educational Research, 89*, 697- 744. https://doi.org/10.3102/0034654319862495

Cook, B. G., Collins, L. W., Cook, S. C., & Cook, L. (2020). Evidence-based reviews: How evidence-based practices are systematically identified. *Learning Disabilities Research and Practice, 35*, 6-13. https://doi.org/10.1111/ldrp.12213

Evans, L. M., Turner, C. R., & Allen, K. R. (2020). "Good teachers" with "good intentions": Misappropriations of culturally responsive pedagogy. *Journal of Urban Learning, Teaching, and Research, 51*(1), 51-73.

Fahle, E. M., Kane, T. J., Patterson, T., Reardon, S. F., Staiger, D. O., & Stuart, E. A. (2023). *School district and community factors associated with learning loss during the COVID-19 pandemic*. https://cepr.harvard.edu/sites/hwpi.harvard.edu/files/cepr/files/explaining_covid_losses_5.23.pdf

Feldon, D. F. (2007). Cognitive load and classroom teaching: The double-edged sword of automaticity. *Educational Psychologist, 42*, 123-137. https://doi.org/10.1080/00461520701416173

Franco, M. P., Bottiani, J. H., & Bradshaw, C. P. (2023). Assessing teachers' culturally responsive classroom practice in PK-12 schools: A systematic review of teacher-, student-, and observer-report measures. *Review of Educational Research*. Online First. https://doi.org/10.3102/00346543231208720

Gay, G. (2014). Culturally responsive teaching principles, practices, and effects. In H. Richard Milner IV & K. Lomotey (Eds.). *Handbook of urban education* (pp. 353-372). Routledge.

Gilmour, A. F., & Wehby, J. H. (2020). The association between teaching students with disabilities and teacher turnover. *Journal of Educational Psychology, 112*, 1042-1060. https://doi.org/10.137/edu0000394

Griffin, C. C., Leko, M. M., Ulrich, T. G., & Peterson, M. V. (2024). Special education teacher preparation: Perspectives on future research. In E. D. McCray, E. Bettini, M. T. Brownell, J. McLeskey, & P. T. Sindelar (Eds.). *Handbook of research on special education teacher preparation* (2nd ed.). Routledge.

Grossman, P., Hammerness, K., & McDonald, M. (2009). Redefining teaching: Re-imagining teacher education. *Teachers and Teaching: Theory and Practice, 15*, 273-290. https://doi.org/10.1080/13540600902875340

Kennedy, M. J., Cook, L., Cook, B., Brownell, M. T., & Holdheide, L. (2020). Special Video: Clarifying the relationship between HLPs and EBPs. https://highleveragepractices.org/clarifying-relationship-between-hlps-and-ebps

Kennedy, M. J., & Romig, J. E. (2021). Cognitive load theory: An applied reintroduction for special and general educators. *TEACHING Exceptional Children*. Online First. https://doi.org/10.1177/00400599211048214.

Ladson-Billings, G. (2014). Culturally relevant pedagogy 2.0: AKA the remix. *Harvard Educational Review, 84*(1), 70-84. https://doi.org/10.17763/haer.84.1.p2rj131485484751

Leko, M., Brownell, M., Sindelar, P., & Kiely, M. (2015). Envisioning the future of special education personnel preparation in a standards-based era. *Exceptional Children, 82*, 25-43. https://doi.org/10.1177/0014402915598782

Maheady, L. J., Patti, A. L., Rafferty, L. A., del Prado Hill, P. (2019). School-university partnerships: One institution's efforts to integrate and support teacher use of high-leverage practices. *Remedial and Special Education, 40*, 356-364. doi: 10.1177/0741932518812689

McCray, E. D., & Waitoller, F. R. (2024). Examining who special educators are prepared to teach: Addressing intersecting identities. In E. D. McCray, E. Bettini, M. T. Brownell, J. McLeskey, & P. T. Sindelar (eds.). *Handbook of research on special education teacher preparation* (2nd ed.). Routledge.

McDonald, M., Kazemi, E., & Kavanaugh, S. (2013). Core practices of teacher education: A call for common language and collective activity. *Journal of Teacher Education, 64*, 378-386. https://doi.org/10.1177/0022487113493807

McLeskey, J., Billingsley, B., Brownell, M. T., Maheady, L., & Lewis, T. J. (2019a). What are high leverage practices for special education teachers and why are they important? *Remedial and Special Education, 40*, 331-337. doi: 10.1177/0741932518773477

McLeskey, J., Maheady, L., Billingsley, B., Brownell, M. T., Lewis, T. J., & Alber-Morgan, S. R. (2023). *High leverage practices for intensive interventions*. Routledge.

McLeskey, J., Maheady, L., Billingsley, B., Brownell, M. T., & Lewis, T. J. (2019b). *High leverage practices for inclusive classrooms*. (2nd Edition). Routledge.

McLeskey, J., Barringer, M-D., Billingsley, B., Brownell, M., Jackson, D., Kennedy, M., Lewis, T., Maheady, L., Rodriguez, J., Scheeler, M. C., Winn, J., & Ziegler, D. (2017). *High-leverage practices in special education*. Council for Exceptional Children & CEEDAR Center.

Nelson, G., Cook, S. C., Zarate, K., Powell, S. R., Maggin, D. M., Drake, K. R., Kiss, A. J., Ford, J. W., Sun, L., & Espinas, D. R. (2022). A systematic review of meta-analyses in special education: Exploring the evidence base for high-leverage practices. R*emedial and Special Education*, *43*, 344-358. https://doi.org/10.1177/07419325211063491

Nguyen, T. D., Lam, C. B, and Bruno, P. (2022). Is there a national teacher shortage? A systematic examination of reports of teacher shortages in the United States. (EdWorkingPaper: 22-631). Retrieved from Annenberg Institute at Brown University: https://doi.org/10.26300/76eq-hj32

Pennington, R., Ault, M. J., Courtade, G., Jameson, J. M., & Ruppar, A. (2023). *High leverage practices and students with extensive support needs*. New York: Routledge.

Rainey, L., Hill, P., & Lake, R. (2023). Teaching recovery? T*hree years in, school system leaders report that the pandemic weakened instruction*. https://crpe.org/wp-content/uploads/ASDP_Wave4_final.pdf. Center on Reinventing Public Education

U.S. Department of Education (2023). National Center for Education Statistics' 2021-22 annual report (https://nces.ed.gov/surveys/annualreports).

U.S. Department of Education (2023). National Center for Education Statistics Fast Facts. https://nces.ed.gov/fastfacts/.

Windschitl, M., Thompson, J., Braaten, M., & Stroupe, D. (2019). Sharing a vision, sharing practices: How communities of educators improve teaching. *Remedial and Special Education*, *40*, 380-390. https://doi.org/10.1177/0741932518810796

Windschitl, M., Thompson, J., Braaten, M., & Stroupe, D. (2012). Proposing a core set of instructional practices and tools for teachers of science. *Science Education*, *96*, 878-903. https://doi.org/10.1002/sce.21027

## Chapter 2 References

Alim, H. S., Paris, D., & Wong, C. P. (2020). Culturally sustaining pedagogies: A critical framework for centering communities. In N. S. Nasir, C. D. Lee, R. Pea, & M. Mckinney de Royston (Eds.), *Handbook of the cultural foundations of learning* (pp. 261–276). Routledge.

Ayers, K. B., Ocasio-Stoutenburg, L., & Connor, D. J. (2024). The journey of disability studies: Contemplating disability critically. In E.A. Harkins Monaco, L.L. Stansberry Brusnahan, M.C. Fuller, & M. Odima Jr. (Eds.), *Disability, intersectionality, and belonging in special education: Socioculturally Sustaining Practices*. Rowman and Littlefield Publishing, Inc.

Biklen, D., & Burke, J. (2006). Presuming competence. *Equity & Excellence in Education*, *39*(2),166-175.

Charlton, J. I. (1998). *Nothing about us without us: Disability, oppression, and empowerment*. University of California Press.

Collins, P. H. (1990). Black feminist thought in the matrix of domination. In P.H. Collins (Ed.), *Black feminist thought: Knowledge, consciousness, and the politics of empowerment*, *(pp.* 221-238). Unwin Hyman.

Crenshaw, K. (1989). Demarginalizing the intersection of race and sex: A Black feminist critiqueof antidiscrimination doctrine, feminist theory, and antiracist politics. *University of Chicago Legal Forum*, *8*(1), 139–167. https://chicagounbound.uchicago.edu/uclf/vol1989/iss1/8/

Egard, H., Hansson, K., & Wästerfors, D. (2022). *Accessibility denied: Understandinginaccessibility and everyday resistance to inclusion for persons with disabilities*. Taylor & Francis.

Fuller, M. C, Harkins Monaco, E. A., Stansberry Brusnahan, L. L., & Lindo, E. J. (2021). Introducing cultural competence in the context of disability and additional social identities. In Harkins E. A. Harkins Monaco, M. C. Fuller, & L. L. Stansberry Brusnahan, (Eds.), *Diversity, autism, and developmental disabilities: Guidance for the culturally sustaining educator*. (pp. 1-22). Council for Exceptional Children.

Gillespie-Lynch, K., Kapp, S. K., Brooks, P. J., Pickens, J., & Schwartzman, B. (2017). Whose expertise is it? Evidence for autistic adults as critical autism experts. *Frontiers in Psychology*, *8*, 438. https://doi.org/10.3389/fpsyg.2017.00438

Goforth, A. N., & Pham, A. V. (2023). *Culturally responsive school-based practices: Supporting mental health and learning of diverse students*. Oxford University Press.

Gonzalez, T. E., Hernandez-Saca, D., & Artiles, A. (2017). In search of voice: Theory and methods in K-12 student voice research in the US, 1990-2010. *Educational Review*, *69*(4), 451-473. https://doi.org/10.1080/00131911.2016.1231661

Harkins Monaco, E.A., McGill, P. I., Constable, C. M., Smith Kondo, C., & Forma, M. (2024). Historical and modern contexts of culture and the impact on belonging. In Harkins Monaco, E.A., Stansberry Brusnahan, L.L., Fuller, M.C., & Odima Jr., M. (Eds.) (2024). *Disability, intersectionality, and belonging in special education: Socioculturally Sustaining Practices.* Rowman and Littlefield Publishing, Inc.

Hunter, W., Taylor, J. C., & Scott, L. (2023). *The Mixtape Volume 1: Culturally sustaining practices within MTSS featuring the everlasting mission of student engagement*. Council for Exceptional Children.

Johnson, K. R., Bogenschutz, M., & Peak, K. (2021). Propositions for race-based research in intellectual and developmental disabilities. *Inclusion*, *9*(3), 156-169. https://doi.org/10.1352/2326-6988-9.3.156

Jones, D. R., Nicolaidis, C., Ellwood, L. J., Garcia, A., Johnson, K. R., Lopez, K., & Waisman, T. C. (2020). An expert discussion on structural racism in autism research and practice. *Autism in Adulthood: Challenges and Management*, *2*(4), 273–281. https://doi.org/10.1089/aut.2020.29015.drj

Kumashiro, K., (2000). Toward a theory of anti-oppressive education. *Review of Educational Research*, *70*(1), 25-53. https://doi.org/10.3102/00346543070001025

Kladis, K., Hawken, L. S., O'Neill, R. E., Fischer, A. J., Fuoco, K. S., O'Keeffe, B. V., & Kiuhara, S. A. (2023). Effects of check-in check -out on engagement of students demonstrating internalizing behaviors in an elementary school setting. *Behavioral Disorders*, *48*(2), 83-96.

Klingner, J. K., & Edwards, P. A. (2006). Cultural considerations with response to intervention models. *Reading Research Quarterly*, *41*(1), 108–17. https://doi.org/10.1598/RRQ.41.1.6

Ladson-Billings, G. (1995). Toward a theory of culturally relevant pedagogy. *American Research Journal*. *32*(3), 465-491. https://doi.org/10.3102/00028312032003465

Lederer, V., Loisel, P., Rivard, M., & Champagne, F. (2014). Exploring the diversity of conceptualizations of work (dis)ability: A scoping review of published definitions. *Journal of Occupational Rehabilitation*, *24*(2), 242-267. https://doi.org/10.1007/s10926-013-9459-4

Linton, S. (1998). *Claiming disability: Knowledge and identity*. NYU Press.

McLeskey, J., Barringer, M-D., Billingsley, B., Brownell, M., Jackson, D., Kennedy, M., Lewis, T., Maheady, L., Rodriguez, J., Scheeler, M. C., Winn, J., & Ziegler, D. (2017). *High-leverage practices in special education.* Council for Exceptional Children & CEEDAR Center.

Mensah, F. M. (2021). Culturally relevant and culturally responsive. *Science and Children*, *58*(4), 10-13.

Mortier, K., Brown, I. C., & Aramburo, C. M. (2021). Cultural brokers in special education. *Research and Practice for Persons with Severe Disabilities*, *46*(1), 3-17. https://doi.org/10.1177/1540796920975386

Paris, D. (2012). Culturally sustaining pedagogy: A needed change in stance, terminology, and practice. *Educational Researcher*, *41*(3), 93-97. https://doi.org/10.3102/0013189X12441244

Pearson, J. N., Hamilton, M-B., & Meadan, H. (2018). "We saw our son blossom" A guide forfostering culturally responsive partnerships to support African American Autistic children and their families. *Perspectives of the ASHA Special Interest Groups*, *3*(1), 84-97. https://doi.org/10.1044/persp3.SIG1.84

Saunders, K., Mercado, M., Citron, L., Pierce, S., & Fuller, M.C. (2024). The history of disability, disability models, and a view for the future: The past is prologue. In E.A. Harkins Monaco, L.L. Stansberry Brusnahan, M.C. Fuller, & M. Odima Jr. (Eds.), *Disability, intersectionality, and belonging in special education: Socioculturally Sustaining Practices*. Rowman and Littlefield Publishing, Inc.

Schalk, S. (2022). *Black disability politics*. Duke University Press.

Shyman, E. (2016). The reinforcement of ableism: Normality and the medical model ofdisability, and humanism in Applied Behavioral Analysis and ASD. *Intellectual and Development Disabilities*, *54*(5), 366-376. https://doi.org/10.1352/1934-9556-54.5.366

Smart, J. (2004). Models of disability: The juxtaposition of biology and social construction. In T. F. Riggar & D. R. Maki (Eds.), *Handbook of Rehabilitation Counseling*, 25-49. Springer.

Stoep, A. V., Williams, M., Jones, R., Green, L., & Trupin, E. (1999). Families as full research partners: What's in it for us? *Journal of Behavioral Health Services & Research, 26(3),* 329–44. https://doi.org/10.1007/BF02287277

Taylor, J. C., Hanley, W., Deger, G., & C. Hunter, W. (2023). Promoting anti-racism practices and the cycle of critical consciousness within positive behavior interventions and supports frameworks. *TEACHING Exceptional Children*, *55*(5), 314-322. https://doi.org/10.1177/00400599221120242

Wiggan, G. A. (2011). *Education for the new frontier: Race, education and triumph in Jim Crow America (1867-1945)*. Nova Science Publishers, Inc.

# Domain One: Overview References

Biklen, D. & Burke, J. (2006). Presuming competence. *Equity & Excellence in Education, 39*(2),166-175.

Liveoak, J., & Holian, L. (2023). *Findings from project with a focus on serving students with disabilities.* Cross-project summary produced by Anlar and the Office of Elementary and Secondary Education; Education Innovation and Research Program (EIR).

# Chapter 3 References

Beck, S. J., & DeSutter, K. (2021). Special education meetings: The role of the facilitator in districts serving rural communities. *Rural Special Education Quarterly, 40*(1), 33–41. https://doi.org/10.1177%2F8756870520972660

Benedict, A. E., Williams, J., Brownell, M. T., Chapman, L., Sweers, A., & Sohn, H. (2023). Using lesson study to change teacher knowledge and practice: The role of knowledge sources in teacher change. *Teaching and Teacher Education, 122,* 1-13 https://doi.org/10.1016/j.tate.2022.103951

Biklen, D., & Burke, J. (2006). Presuming competence. *Equity & Excellence in Education, 39*(2), 166-175.

Billingsley, B., & Bettini, E. (2019). Special education teacher attrition and retention: A review of the literature. *Review of Educational Research, 89*(5), 697-744. https://doi.org/10.3102/0034654319862495

Cheatham, G. A., & Lim-Mullins, S. (2018). Immigrant, bilingual parents of students with disabilities: Positive perceptions and supportive dialogue. *Intervention in School and Clinic, 54*(1), 40–6. https://doi.org/10.1177%2F1053451218762490

De Jong L., Meirink, J., & Admiraal, W. (2022). Teacher learning in the context of teacher collaboration: Connecting teacher dialogue to teacher learning. *Research Papers in Education, 37*(6), 1165-1188. https://doi.org/10.1080/02671522.2021.1931950

Friend, M. (2021). *Interactions: Collaboration Skills for School Professionals* (9th ed.). Pearson.

Griffiths, A. J., Alsip, J., Hart, S. R., Round, R. L., & Brady, J. (2021). Together we can do so much: A systematic review and conceptual framework of collaboration in schools. *Canadian Journal of School Psychology, 36*(1), 59-85. https://doi.org/10.1177/0829573520915368

Grissom, J. A., Egalite, A. J., & Lindsay, C. A. (2021). *How principals affect students and schools.* Wallace Foundation, 2(1), 30-41.

Hallam, P. R., Smith, H. R., Hite, J. M., Hite, S. J., & Wilcox, B. R. (2015). Trust and collaboration in PLC teams: Teacher relationships, principal support, and collaborative benefits. *NASSP Bulletin, 99,* 193–216. https://doi.org/10.1177/0192636515602330

King-Sears, M. E., Stefanidis, A., Berkeley, S., & Strogilos, V. (2021). Does co-teaching improve academic achievement for students with disabilities? A meta-analysis. *Educational Research Review*, *34*, 100405. https://doi.org/10.1016/j.edurev.2021.100405

Lake, B. J., Billingsley, B., & Stewart, A. (2018). Building trust and responding to parent–school conflict. In J. Crockett, B. Billingsley, & M. L. Boscardin (2nd edition), *Handbook of leadership and administration for special education*, 265-278.

Nelson, G., Cook, S. C., Zarate, K., Powell, S. R., Maggin, D. M., Drake, K. R., ... & Espinas, D. R. (2022). A systematic review of meta-analyses in special education: Exploring the evidence base for high-leverage practices. *Remedial and Special Education*, *43*(5), 344-358. https://doi.org/10.1177/07419325211063491

Norwich, B., Benham-Clark, S., & Goei, S. L. (2021). Review of research literature about the use of lesson study and lesson study-related practices relevant to the field of special needs and inclusive education. *European Journal of Special Needs Education*, *36*(3), 309-328. https://doi.org/10.1080/08856257.2020.1755929

Ronfeldt, M., Farmer, S. O., McQueen, K., & Grissom, J. A. (2015). Teacher collaboration in instructional teams and student achievement. *American Educational Research Journal*, *52*, 475–514. https://doi.org/10.3102/0002831215585562

Rossetti, Z., Redash, A., Sauer, J. S., Bui, O., Wen, Y., & Regensburger, D. (2020). Access, accountability, and advocacy: Culturally and linguistically diverse families' participation in IEP meetings. *Exceptionality*, *28*(4), 243-258. https://doi.org/10.1080/09362835.2018.1480948

Rowe, D. A., & Francis, G. L. (2021). Reflective thinking: Considering the intersection of microcultures in IEP planning and implementation. *TEACHING Exceptional Children*, *53*(1), 2-6. https://doi.org/10.1177/0040059920952007

Vembye, M. H., Weiss, F., & Hamilton Bhat, B. (2022). The effects of co-teaching and related collaborative models of instruction on student achievement: A systematic review and meta-analysis. *Review of Educational Research*. https://doi.org/00346543231186588

Washburn, J., & Billingsley, B. (2023). Organize and facilitate effective meetings with professionals and families. In J. McLeskey, L. Maheady, B. Billingsley, M.T. Brownell, T.J. Lewis, & Alber-Morgan, S. R. (Eds.). *High Leverage practices for intensive interventions*. Taylor & Francis.

# Chapter 4 References

Bolton, G., (2010). *Reflective practice: Writing and professional development*. (3rd edition). Sage.

Every Student Succeeds Act (ESSA), 20 U.S.C. § 1177 (2015).

Francis, G. L., Regester, A., & Reed, A. S. (2019). Barriers and supports to parent involvement and collaboration during transition to adulthood. *Career Development and Transition for Exceptional Individuals*, *42*(4), 235-245. https://doi.org/10.1177/2165143418813912

Francis, G. L., Strimel, M., Macedonia, A. (2023). The EASE Process: Increasing educator reflexivity to foster family-educator collaboration. *TEACHING Exceptional Children*. https://doi-org.mutex.gmu.edu/10.1177/00400599231177288

Gollnick, D. M., & Chinn, P. C. (2017). *Multicultural education in a pluralistic society* (10th ed.). Pearson.

Gross, J., Francis, G.L, & Gage, S. (2021). Family Employment Awareness Training (FEAT): *A research-based program for promoting high expectations for employment and knowledge resources*. U.S. Department of Labor's Office of Disability Employment Policy. https://www.dol.gov/sites/dolgov/files/ODEP/pdf/SSI_Youth_Gross_Final_Proposal.pdf

Haines, S. J., Francis, G. L., Mueller, T. G., Chiu, C., Burke, M. M., Kyzar, K., Shepherd, K. G, Holdren, N. Aldersey, H. M, & Turnbull, A. P. (2017). Reconceptualizing family-professional partnership for inclusive schools: A call to action. *Inclusion*, *5*(4), 234-247. https://doi.org/10.1352/2326-6988-5.4.234

Hirano, K., Rowe, D. A., Lindstrom, L., & Chan, P. (2018). Systemic barriers to family involvement in transition planning for youth with disabilities: A qualitative metasynthesis. *Journal of Child and Family Studies*, *27*(2), 3440-3456. https://doi.org/10.1007/s10826-018-1189-y

Ishimaru, A. M. (2017). From family engagement to equitable collaboration. *Educational Policy, 33*(2), 350-385. https://doi-org.mutex.gmu.edu/10.1177/0895904817691841

Individuals with Disabilities Education Improvement Act (IDEIA). 20 U.S.C. §§ 1400 - *et seq*.

Kalyanpur, M., & Harry, B. (2012). *Cultural reciprocity in special education: Building family-professional relationships*. Paul Brookes.

Kyzar, K., Mueller, T. G., Francis, G. L., & Haines, S. J. (2019). Special education teacher preparation for family-professional partnerships: Results from a national survey of teacher educators. *Teacher Education and Special Education*, *42*, 320-337. https://doi.org/10.1177/0888406419839123

Lavín, C. E., Jordan, A. W., Francis, G. L. (2021). Back to basics: Culturally relevant pedagogy in special education. *The High School Journal*, *105*(1), 5-16. https://muse.jhu.edu/article/854855

Mueller, T. G., & Vick, A. M. (2019). Rebuilding the family–professional partnership through facilitated individualized education program meetings: A conflict prevention and resolution practice. *Journal of Educational & Psychological Consultation, 29*(2), 99–127. https://doi-org.electra.lmu.edu/10.1080/10474412.2018.1470934

Rossetti, Z., Sauer, J. S., Bui, O., & Ou, S. (2017). Developing collaborative partnerships with culturally and linguistically diverse families during the IEP process. *TEACHING Exceptional Children*, *49*, 328-338. https://doi.org/10.1177/0040059916680103

Santamaría Graf, C., & Aceves, T. C. (Forthcoming) Centering BIPOC Multilingual family voices in educator professional training. In *Critical perspectives on family connections in multilingual education: Celebrating successes and confronting challenges* in Information Age Publishing (IAP).

Turnbull, A., Turnbull, R., Francis, G. L., Burke, M., Kyzar, K., Haines, S. J., Gershwin, T., Shepherd, K. G., Holdren, N., & Singer, G. (2022). *Families and professionals: Trusting partnerships in general and special education* (8th ed.). Pearson.

## Domain One: Putting It All Together Reference

Reinke, W. M., Sims, W., Cohen, D., & Herman, K. C. (2018). Roles and functions of effective teams. In M. J. Kennedy & P. C. Pullen (Eds.), *Handbook of response to intervention and multi-tiered systems of support*, 80-103. Routledge.

# Domain Two: Overview References

Biklen, D., & Burke, J. (2006). Presuming competence. *Equity & Excellence in Education, 39(2),*166-175.

# Chapter 5 References

Cioè-Peña, M. (2020). Bilingualism for students with disabilities, deficit or advantage?: Perspectives of Latinx mothers. *Bilingual Research Journal*, *43*(3), 253-266. https://doi.org/10.1080/15235882.2020.1799884

Datnow, A., & Hubbard, L. (2015). Teachers' use of assessment data to inform instruction: Lessons from the past and prospects for the future. *Teachers College Record*, *117*(4), 1-26. https://doi.org/10.1177/016146811511700408

Filderman, M. J., Austin, C. R., & Toste, J. R. (2019). Data-based decision making for struggling readers in the secondary grades. *Intervention in School and Clinic*, *55*(1), 3–12. https://doi-org.lp.hscl.ufl.edu/10.1177/1053451219832991

Gersten, R., Haymond, K., Newman-Gonchar, R., Dimino, J., & Jayanthi, M. (2020). Meta-analysis of the impact of reading interventions for students in the primary grades. *Journal of Research on Educational Effectiveness*, *13*(2), 401-427. https://doi.org/10.1080/19345747.2019.1689591

Hattan, C., Alexander, P. A., & Lupo, S. M. (2023). Leveraging what students know to make sense of texts: What the research says about prior knowledge activation. *Review of Educational Research*, 00346543221148478.

Hosp, M. K, Hosp J. L., & Howell, K. W. (2016). *The ABCs of CBM: A practical guide to curriculum-based measurement* (2nd Ed.) Guilford Press.

IDEA regulations, 34 C.F.R. § 300 (2017) https://sites.ed.gov/idea/regs/b/a/300.39

Individuals with Disabilities Education Act, 20 U.S.C. § 1400 (2004).

Ladson-Billings, G. (2013). Lack of achievement or loss of opportunity? in P. L. Carter, and K. G. Welner (Eds.), *Closing the opportunity gap: What America must do to give every child an even chance*. Oxford Academic.

Leko, M. M., Roberts, C., Peyton, D., & Pua, D. (2019). Selecting evidence-based practices: What works for me. *Intervention in School and Clinic*, *54*(4), 286-294. https://doi.org/10.1177/1053451218819190

McCray, E. D., Linan-Thompson, S., Jackson D. A. (2021). Supporting learners from culturally and linguistically diverse backgrounds. In J. McLeskey, F. Spooner, B. Algozzine, & N. L. Waldron (Eds.), *Handbook of effective inclusive elementary school research and practice, 2nd ed*. Routledge.

Nagro, S. A., deBettencourt, L. U., Rosenberg, M.S., Carran, D. T., & Weiss, M. P. (2017). The effects of guided video analysis on teacher candidates' reflective ability and instructional skills. *Teacher Education and Special Education. 40*(1). 7-25. https://doi.org/10.1177/0888496416680469

Owiny, R. L., & Cornelius, K. E. (2023). *The practical guide to High-Leverage Practices in special education: The purposeful "how" to enhance classroom rigor*. Slack Publishing.

Paris, D. (2012). Culturally sustaining pedagogy: A needed change in stance, terminology, and practice. *Educational Researcher*, *41*(3), 93-97. https://doi.org/10.3102/0013189X12441244

Riddle, S. (2017). Ecological congruence and the identification of learning disabilities. *Child Youth Care Forum*, *46*, 161-174. https://doi.org/10.1007/s10566-016-9376-8

Taylor, J. C., Stansberry Brusnahan, L. L., Farrell, E. F., & Fuller, M. (in press). Addressing diversity, bias, and racism in applied behavior analysis: Reflective practices for behavior analytic professionals in schools. *Education and Treatment of Children*.

Wanzek, J., Al Otaiba, S., & McMaster, K. L. (2020). *Intensive reading interventions for the elementary grades*. New York: Guilford Press.

What Works Clearinghouse. (2009, September). *Using student achievement data to support instructional decision making* (NCEE 2009-4067). Washington, DC: U.S. Department of Education, Institute of Education Sciences.

# Chapter 6 References

Abrams, L. M., Varier, D., & Mehdi, T. (2021). The intersection of school context and teachers' data use practice: Implications for an integrated approach to capacity building. *Studies in Educational Evaluation*, *69*, 100868-. https://doi-org.lp.hscl.ufl.edu/10.1016/j.stueduc.2020.100868

Archer, A. L., & Hughes, C. A. (2011). *Explicit instruction: Effective and efficient teaching*. Guilford Press.

Artiles, A. (2015). Beyond responsiveness to identity badges: Future research on culture in disability and implications for Response to Intervention. *Educational Review*, 67(1), 1-22. DOI: 10.1080/00131911.2014.934322

Benedict, A. E., Cornelius, K. E., Acosta, K., & Ray, J. (2022). Using multiple sources of information to develop a comprehensive understanding of a student's strengths and needs. In McLeskey, J., Maheady, L., Billingsley, B., Brownell, M. T., & Lewis, T. J. (Eds.). *High leverage practices for inclusive classrooms (2nd Ed*. pp 57-70). Routledge.

Boon, R. T., Barbetta, P. M., & Paal, M. (2018). The efficacy of graphic organizers on the writing outcomes of students with learning disabilities: A research synthesis of single-case studies. *Learning Disabilities: A Multidisciplinary Journal*, *23*(2). https://doi.org/10.18666/LDMJ-2018-V23-I2-9042

Calder, S. (2019). The relationship between students living in poverty and those who teach them. *BU Journal of Graduate Studies in Education*, *11*(1), 37-41.

Carlson, R. G., Hock, R., George, M., Kumpiene, G., Yell, M., McCartney, E. D., Riddle, D., & Weist, M. D. (2020). Relational factors influencing parents' engagement in special education for high school youth with emotional/behavioral problems. *Behavioral Disorders*, *45*(2), 103–116. https://doi-org.lp.hscl.ufl.edu/10.1177/0198742919883276

Cioè-Peña, M. (2020). Bilingualism for students with disabilities, deficit or advantage?: Perspectives of Latinx mothers. *Bilingual Research Journal*, *43*(3), 253-266. https://doi.org/10.1080/15235882.2020.1799884

Ciullo, S., Falcomata, T. S., Pfannenstiel, K., & Billingsley, G. (2015). Improving learning with science and social studies text using computer-based concept maps for students with disabilities. *Behavior Modification, 39*(1), 117-135. https://doi.org/10.1177/0145445514552890

Classen, A., Cheatham, G. & Kang, J. (2020). Implementing systemic informal assessment in early education settings. *Informal Assessment & Dual Language Learners*, *23*(1). https://doi.org/10.55370/hsdialog.v23i1.1060

Conoyer, S. J., Ford, J. W., Smith, R. A., Mason, E. N., Lembke, E. S., & Hosp, J. L. (2019). Examining curriculum-based measurement screening tools in middle school science: A scaled replication study. *Journal of Psychoeducational Assessment, 37*(7), 887-898. https://doi.org/10.1177/073428291880349

Council for Exceptional Children (2023). Individualized Education Programs (IEPs). https://exceptionalchildren.org/topics/individualized-education-programs-ieps

Council of Chief State School Officers. (2010). Common Core State Standards. Washington, DC https://learning.ccsso.org/wp-content/uploads/2022/11/ELA_Standards1.pdf

Doabler, C. T., Baker, S. K., Kosty, D. B., Smolkowski, K., Clarke, B., Miller, S. J., & Fien, H. (2015). Examining the association between explicit mathematics instruction and student mathematics achievement. *The Elementary School Journal*, *115*(3), 303-333. https://doi.org/10.1086/679969

Driver, M. K., & Powell, S. R. (2017). Culturally and linguistically responsive schema intervention: Improving word problem solving for English language learners with mathematics difficulty. *Learning Disability Quarterly*, *40*(1), 41–53. https://doi.org/10.1177/0731948716646730

Dunn, C., Gilson, C., & Yllades, V. (2022). Experiences of latinx immigrant parents of children with developmental disabilities in the IEP process. *Education and Training in Autism and Developmental Disabilities*, *57*(4), 404–416.

Esteban-Guitart, M., & Moll, L. C. (2014). Funds of identity: A new concept based on the funds of knowledge approach. *Culture & Psychology, 20*(1), 31-48. https://doi.org/10.1177/1354067X13515934

Every Student Succeeds Act, 20 U.S.C. 6301 *et seq*. (2015).

Fien, H., Smith, J. L. M., Smolkowski, K., Baker, S. K., Nelson, N. J., & Chaparro, E. (2015). An examination of the efficacy of a multitiered intervention on early reading outcomes for first grade students at risk for reading difficulties. *Journal of Learning Disabilities*, *48*(6), 602-621. https://doi.org/10.1177/0022219414521664

Gallagher, M. A., Barber, A. T., Beck, J. S., & Buehl, M. M. (2019). Academic vocabulary: Explicit and incidental instruction for students of diverse language backgrounds. *Reading & Writing Quarterly*, *35*(2), 84-102. https://doi.org/10.1080/10573569.2018.1510796

Garvin-Hudson, B., & Jackson, T. (2018) A case for culturally relevant science education in the summer for African American youth. *International Journal of Qualitative Studies in Education*, *31*(8), 708-725. https://doi.org/10.1080/09518398.2018.1478156

Goran, L., Harkins Monaco, E. A., Yell, M. L., Shriner, J., & Bateman, D. (2020). Pursuing academic and functional advancement: Goals, services, and measuring progress. *TEACHING Exceptional Children*, *52*(5), 333-343. https://doi.org/10.1177/0040059920919924

Harry, B., & Ocasio-Stoutenburg, L. (2021). Parent advocacy for lives that matter. *Research and Practice for Persons with Severe Disabilities*, *46*(3), 184-198. https://doi.org/10.1177/15407969211036442

Hoover, J. J., Soltero-González, L., Wang, C., & Herron, S. (2020). Sustaining a multitiered system of supports for English learners in rural community elementary schools. *Rural Special Education Quarterly*, *39*(1), 4-16. doi:10.1177/8756870519847466

Individuals with Disabilities Education Act, 20 U.S.C. § 1400 (2004).

Kamman, M., & McCray, E. (2022). Interpreting and communicating assessment information with stakeholders to collaboratively design and implement educational programs. In McLeskey, J., Maheady, L., Billingsley, B., Brownell, M. & Lewis, T. (Eds), *High leverage practices for inclusive classrooms* (2nd ed. pp. 71-84). Routledge.

Kelty, N. E., & Wakabayashi, T. (2020). Family engagement in schools: parent, educator, and community perspectives. *SAGE Open*, *10*(4). https://doi.org/10.1177/2158244020973024

Larios, R., & Zetlin, A. (2022). Bilingual and monolingual parents' counterstories of the individualized education program (IEP) meeting. *Urban Education* (Beverly Hills, Calif.), *57*(7), 1207–1229. https://doi-org.lp.hscl.ufl.edu/10.1177/0042085918804003

Leithwood, K., & Sun, J. (2018). Academic culture: a promising mediator of school leaders' influence on student learning. *Journal of Educational Administration*, 56(3), 350–363. https://doi-org.lp.hscl.ufl.edu/10.1108/JEA-01-2017-0009

Lee, H., Chung, H. Q., Zhang, Y., Abedi, J., & Warschauer, M. (2020). The effectiveness and features of formative assessment in US K-12 education: A systematic review. *Applied Measurement in Education*, 33(2), 124-140. https://doi.org/10.1080/08957347.2020.1732383

Lembke, E. S., Allen, A., Cohen, D., Hubbuch, C., Landon, D., Bess, J., & Bruns, H. (2017). Progress monitoring in social studies using vocabulary matching curriculum-based measurement. *Learning Disabilities Research & Practice*, 32(2), 112-120. https://doi.org/10.1111/ldrp.12130

Leverson, M., Smith, K., McIntosh, K., Rose, J. & Pinkelman, S. (2021). *PBIS cultural responsiveness field guide: Resources for trainers and coaches*. Center on Positive Behavioral Interventions and Supports. https://assets-global.website-files.com/5d3725188825e071f1670246/6062383b3f8932b212e9c98b_PBIS%20Cultural%20Responsiveness%20Field%20Guide%20v2.pdf

Lo, C. O., & Porath, M. (2017). Paradigm shifts in gifted education: An examination vis-à-vis its historical situatedness and pedagogical sensibilities. *Gifted Child Quarterly*, *61*(4), 343-360. https://doi.org/10.1177/0016986217722840

McMaster, K. L., Lembke, E. S., Shin, J., Poch, A. L., Smith, R. A., Jung, P. G., ... & Wagner, K. (2020). Supporting teachers' use of data-based instruction to improve students' early writing skills. *Journal of educational psychology*, *112*(1), 1. https://doi/org/10.1037/edu0000358

Mandinach, E. B., & Gummer, E. S. (2016). *Data literacy for educators: Making it count in teacher preparation and practice*. Teachers College Press.

Mahdavi, S. (2017). *The influence of early parent involvement and depression on academic achievement, psychosocial behaviors, and motivation in children with learning disabilities across elementary school*. ProQuest Dissertations Publishing.

Mazzotti, V. L., Rowe, D. A., Kwiatek, S., Voggt, A., Chang, W.-H., Fowler, C. H., Poppen, M., Sinclair, J., & Test, D. W. (2021). Secondary transition predictors of postschool success: An update to the research base. *Career Development and Transition for Exceptional Individuals*, *44*(1), 47–64. https://doi-org.lp.hscl.ufl.edu/10.1177/2165143420959793

McCray, E. D., Linan-Thompson, S., Jackson D. A. (2021). Supporting learners from culturally and linguistically diverse backgrounds. In J. McLeskey, F. Spooner, B. Algozzine, & N. L. Waldron (Eds.), *Handbook of effective inclusive elementary school research and practice, (2nd ed.)*. Routledge.

Moeller, A. J., Theiler, J. M., & Wu, C. (2012). Goal setting and student achievement: A longitudinal study. *The Modern Language Journal* (Boulder, Colo.), *96*(2), 153–169. https://doi-org.lp.hscl.ufl.edu/10.1111/j.1540-4781.2011.01231.x

Mohamed, N. (2023). Dis-labeling the ables: The overrepresentation of culturally and linguistically diverse students receiving special education services. *Journal of Underrepresented and Minority Progress* (Print), *7*(1). https://doi-org.lp.hscl.ufl.edu/10.32674/jump.v7i1.5010

Nagro, S. A., deBettencourt, L. U., Rosenberg, M.S., Carran, D. T., & Weiss, M. P. (2017). The effects of guided video analysis on teacher candidates' reflective ability and instructional skills. *Teacher Education and Special Education*, *40*(1), pp. 7-25. https://doi.org/10.1177/0888496416680469

Nagro, S. A., Fraser, D. W., & Hooks, S. D. (2019). Lesson planning with engagement in mind: Proactive classroom management strategies for curriculum instruction. *Intervention in School and Clinic*, *54*(3), 131-140. https://doi.org/10.1177/1053451218767905

National Center For Learning Disabilities. (2020). *Significant Disproportionality in Special Education: Current Trends and Actions for Impact*. https://ncld.org/wp-content/uploads/2023/07/2020-NCLD-Disproportionality_Trends-and-Actions-for-Impact_FINAL-1.pdf

Novak, E., & Khan, J. I. (2022). A research-practice partnership approach for co-designing a culturally responsive computer science curriculum for upper elementary students. *TechTrends*, *66*(3), 527-538. https://doi.org/10.1007/s11528-022-00730-z

Ogunyemi, D., Clare, C., Astudillo, Y. M., Marseille, M., Manu, E., & Kim, S. (2020). Microaggressions in the learning environment: A systematic review. *Journal of Diversity in Higher Education*, *13*(2), 97–119. https://doi.org/10.3102/0013189X12441244

Powers, K. M., Hagans-Murillo, K., & Restori, A. F. (2004). Twenty-five years after Larry P.: The California response to overrepresentation of African Americans in special education. *California School Psychologist*, *9*, 145-158. https://doi.org/10.1007/BF03340915

Riccomini, P. J., Morano, S., & Hughes, C. A. (2017). Big ideas in special education: Specially designed instruction, high-leverage practices, explicit instruction, and intensive instruction. *TEACHING Exceptional Children*, *50*(1), 20-27. https://doi.org/10.1177/0040059917724412

Riddle, S. (2.17). Ecological congruence and the identification of learning disabilities. *Child Youth Care Forum*, *46*, 161-174. DOI 10.1007/s10566-016-9376-8

Rios-Aguilar, C., & Neri, R. C. (2023). Funds of knowledge, community cultural wealth, and the forms of capital: strengths, tensions, and practical considerations. *Urban Education* (Beverly Hills, Calif.), *58*(7), 1443–1448. https://doi-org.lp.hscl.ufl.edu/10.1177/00420859211016522

Rossetti, Z., Redash, A., Sauer, J. S., Bui, O., Wen, Y., & Regensburger, D. (2020). Access, accountability, and advocacy: culturally and linguistically diverse families' participation in IEP meetings. *Exceptionality*, *28*(4), 243–258. https://doi-org.lp.hscl.ufl.edu/10.1080/09362835.2018.1480948

Sailor, W., Skrtic, T. M., Cohn, M., & Olmstead, C. (2021). Preparing teacher educators for statewide scale-up of multi-tiered system of support (MTSS). *Teacher Education and Special Education*, 44(1), 24-41. https://doi.org/10.1177/0888406420938035

Sanderson, K. A., & Goldman, S. E. (2023). Factors associated with parent IEP satisfaction. *Remedial and Special Education*, *44*(3), 184–196. https://doi-org.lp.hscl.ufl.edu/10.1177/07419325221111571

Sanderson, K. A., & Rojas, A. J. (2023). Parent perspectives on student IEP involvement. *Journal of Research in Special Educational Needs*, *23*(2), 90–99. https://doi-org.lp.hscl.ufl.edu/10.1111/1471-3802.12582

Sayeski, K. L., Reno, E. A., & Thoele, J. M. (2023). Specially designed instruction: Operationalizing the delivery of special education services. *Exceptionality*, *31*(3), 198-210. https://doi.org/10.1080/09362835.2022.2158087

Schildkamp, K., & Poortman, C. (2015). Factors influencing the functioning of data teams. *Teachers College Record*, *117*(4), 1–42. https://doi.org/10.1177/016146811511700403

Singleton, S. M., & Filce, H. G. (2015). Graphic organizers for secondary students with learning disabilities. *TEACHING Exceptional Children*, *48*(2), 110-117. https://doi.org/10.1177/0040059915605799

Smith, S. W. (2001). Involving parents in the IEP process. ERIC Digest E611. ERIC Clearinghouse on Disabilities and Gifted Education, Council for Exceptional Children. https://eric.ed.gov/?id=ED455658

Soland, J. & Sandilos, L. (2021) English language learners, self-efficacy, and the achievement gap: Understanding the relationship between academic and aocial-emotional growth, *Journal of Education for Students Placed at Risk* (JESPAR), *26*(1), 20-44. https://doi.org/10.1080/10824669.2020.1787171

Trent, S. C., Driver, M. K., Rodriguez, D., Oh, K., Stewart, S., Kea, C., Artiles, A., & Hull, M. (2014). Beyond Brown: Empirical research on diverse learners with or at-risk for specific learning disabilities from 1994-2012. *Multiple Voices for Ethnically Diverse Exceptional Learners*, *14*(2), 12-29. https://doi.org/10.5555/2158-396X.14.2.12

U.S. Department of Education (2016). *Racial and ethnic disparities in special education*. Washington, DC: Office of Special Education and Rehabilitation. http://www2.ed.gov/programs/osepidea/618-data/LEA-racial-ethnic-disparities-tables/disproportionality-analysis-by-state-analysis-category.pdf

van der Scheer, E. A., & Visscher, A. J. (2016). Effects of an intensive data-based decision making intervention on teacher efficacy. *Teaching and Teacher Education*, *60*, 34-43. https://doi.org/10.1177/0022487117704170

Wiliam, D. (2018) Assessment for learning: Meeting the challenge of implementation. *Assessment in Education: Principles, Policy & Practice, 25*:6, 682-685. https://doi.org/10.1080/0969594X.2017.1401526

Zusho, A., Kumar, R., & Bondie, R. S. (2023). Transforming fear into rigor, love, freedom, and joy: A new paradigm of standards-based reform. *Educational Psychologist*, *58*(4), 244-260. https://doi.org/10.1080/00461520.2023.2250879

# Domain Three: Overview Reference

Biklen, D., & Burke, J. (2006). Presuming competence. *Equity & Excellence in Education, 39(2)*,166-175.

# Chapter 7 References

Archer, A. L., & Hughes, C. A. (2011). *Explicit instruction: Effective and efficient teaching*. The Guilford Press.

Baker, P. H. (2005). Managing student behavior: How ready are teachers to meet the challenge? A*merican Secondary Education, 33*(3), 51-64.

Capin, P., & Vaughn, S. (2017). Improving reading and social studies learning for secondary students with reading disabilities. *TEACHING Exceptional Children, 49*(4), 249-261.  https://doi.org/10.1177/0040059917691043

Christle, C. A., & Schuster, J. W. (2003). The effects of using response cards on student participation, academic achievement, and on-task behavior during whole-class, math instruction. *Journal of Behavioral Education, 12*(3), 147-165. https://doi.org/10.1023/a:1025577410113

Coalition for Psychology in Schools and Education. (2006, August). *Report on the teacher needs survey*. American Psychological Association, Center for Psychology in Schools and Education.  https://doi.org/10.1037/e579052010-001

Cooper, J. T., & Scott, T. M. (2017). The keys to managing instruction and behavior: Considering high probability practices. *Teacher and Special Education, 40*(2), 102-113. https://doi.org/10.1177/088840641700082

Connor, C. M., Piasta, S. B., Fishman, B., Glasney, S., Schatschneider, C., Crowe, E., Underwood, P., & Morrison, F. J. (2009). Individualizing student instruction precisely: Effects of child by instruction interactions on first graders' literacy development. *Child Development,* 80(1), 77-100. https://doi.org/10.1111/j.1467-8624.2008.01247.x

Deshler, D. D., Schumaker, J. B., Lenz, B. K., Bulgren, J. A., Hock, M. F., Knight, J., & Ehren, B. J. (2001). Ensuring content-area learning by secondary students with learning disabilities. *Learning Disabilities Research & Practice, 16*(2), 96-108. https://doi.org/10.1111/0938-8982.00011

Freeman-Green, S., Driver, M. K., Wang, P., Kamuru, J., & Jackson, D. (2021). Culturally sustaining practices in content area instruction for CLD students with learning disabilities. *Learning Disabilities Research & Practice, 36*(1), 12-25. https://doi.org/10.1111/ldrp.12240

Frye, B. E., Bartlett, J. E., & Smith, K. D. (2013). The propensity to avoid developmental math in community college: A focus on minority students. *Community Colleges and STEM* (pp. 101-122). Routledge.

Gallagher, M. A., Barber, A. T., Beck, J. S., & Buehl, M. M. (2019). Academic vocabulary: Explicit and incidental instruction for students of diverse language backgrounds. *Reading & Writing Quarterly*, *35*(2), 84-102. https://doi.org/10.1080/10573569.2018.1510796

Good, T. L., & Brophy, J. E. (1974). Changing teacher and student behavior: An empirical investigation. *Journal of Educational Psychology, 66*(3), 390–405. https://doi.org/10.1037/h0036499

Graham, S., McKeown, D., Kiuhara, S., & Harris, K. R. (2012). A meta-analysis of writing instruction for students in the elementary grades. *Journal of Educational Psychology*, *104*(4), 879-896. https://doi.org/10.1037/a0029185

Graham, S., Harris, K. R., & Santangelo, T. (2015). Research-based writing practices and the common core: Meta-analysis and meta-synthesis. *The Elementary School Journal*, *115*(4), 498-522. https://doi.org/10.1086/681964

Granado-Peinado, M., Cuevas, I., Olmos, R., Martín, E., Casado-Ledesma, L., & Mateos, M. (2023). Collaborative writing of argumentative syntheses by low-performing undergraduate writers: Explicit instruction and practice. *Reading and Writing*, 36(4), 909-936. https://doi.org/10.1007/s11145-022-10318-x

Green, A. L., & Stormont, M. (2018). Creating culturally responsive and evidence-based lessons for diverse learners with disabilities. *Intervention in School and Clinic*, *53*(3), 138-145. https://doi.org/10.1177/1053451217702114

Hattie, J. A. C. (2008). V*isible learning: A synthesis of over 800 meta-analyses relating to achievement*. Routledge.

Hattie, J. (2009). The black box of tertiary assessment: An impending revolution. In L. H. Meyer, S. Davidson, H. Anderson, R. Fletcher, P. M. Johnston, & M. Rees (Eds.), *Tertiary assessment & higher education student outcomes: Policy, practice & research* (pp. 259-275). Ako Aotearoa.

Hattie, J. A., & Yates, G. C. (2014). Using feedback to promote learning. In V. A. Benassi, C. E., Oveson, & C. M. Hakala (Eds.), *Applying science of learning in education: Infusing psychological science into the curriculum* (pp. 45-58). Society for the Teaching of Psychology.

Hughes, C. A. (2011). Effective instructional design and delivery for teaching task-specific learning strategies to students with learning disabilities. *Focus on Exceptional Children*, *44*(2), 1-16. https://doi.org/10.17161/fec.v44i2.6689

Kourea, L., Gibson, L., & Werunga, R. (2018). Culturally responsive reading instruction for students with learning disabilities. *Intervention in School and Clinic*, *53*(3), 153-162. https://doi.org/10.1177/1053451217702112

Ladson-Billings, G. (1995). But that's just good teaching! The case for culturally relevant pedagogy. *Theory Into Practice, 34*(3), 159-165.

Lewis, T. J. (2009). *Are we there yet? Mapping the PBS course for the long haul*. Keynote presentation at the 4th Annual Missouri Schoolwide Positive Behavior Support Summer Institute, Osage Beach, MO.

Myers, D., Sugai, G., Simonsen, B., & Freeman, J. (2017). Assessing teachers' behavior support skills. *Teacher Education and Special Education, 40*(2), 128-139. https://doi.org/10.1177/0888406417700964

Nelson, G., Cook, S. C., Zarate, K., Powell, S. R., Maggin, D. M., Drake, K. R., Kiss, A. J., Ford, J. W., Sun, L., & Espinas, D. R. (2022). A systematic review of meta-analyses in special education: Exploring the evidence base for high-leverage practices. *Remedial and Special Education, 43*(5), 344-358. https://doi.org/10.1177/17419325211063491

O'Connor, R. E., Swanson, H. L., & Geraghty, C. (2010). Improvement in reading rate under independent and difficult text levels: Influences on word and comprehension skills. *Journal of Educational Psychology, 102*(1), 1-119. https://doi.org/10.1037/a0017488

Oliver, R. M., Wehby, J. H., & Reschly, D. J. (2011). Teacher classroom management practices: Effects on disruptive or aggressive student behavior. *Campbell Systematic Reviews, 7*(1), 1-55. https://doi.org/10.4073/csr.2011.4

Patrona, E., Ferron, J., Olszewski, A., Kelley, E., & Goldstein, H. (2022). Effects of explicit vocabulary interventions for preschoolers: An exploratory application of the percent of goal obtained effect size metric. *Journal of Speech, Language, and Hearing Research, 65*(12), 4821-4836. https://doi.org/10.1044/2022_jslhr-22-00217

Scott, T. M., Alter, P. J., & Hirn, R. G. (2011). An examination of typical classroom contexts and instruction for students with and without behavioral disorder. *Education and Treatment of Children, 34*(4), 619-641. https://doi.org/10.1353/etc.2011.0039

Scott, T. M., Hirn, R. G., & Cooper, J. T. (2017). T*eacher and student behaviors: Keys to success in classroom instruction*. Rowman & Littlefield.

Sebastian, R. (2023). "If you want to go far": A case study of culturally sustaining co-teaching. *The Urban Review, 55*, 27-49. https://doi.org/10.1007/s11256-022-00639-0

Shanahan, T., Callison, K., Carriere, C., Duke, N. K., Pearson, P. D., Schatschneider, C., & Torgesen, J. (2010). Improving reading comprehension in kindergarten through 3rd grade. *IES Practice Guide*. NCEE. What Works Clearinghouse.

Simonsen, B., Freeman, J., Myers, D., Dooley, K., Maddock, E., Kern, L., & Byun, S. (2020). The effects of targeted professional development on teachers' use of empirically supported classroom management practices. *Journal of Positive Behavior Interventions, 22*(1), 3-14. https://doi.org/10.1177/1098300719859615

Simonsen, B., MacSuga-Gage, A. S., Briere, D. E., Freeman, J., Myers, D., Scott, T. M., & Sugai, G. (2014). Multitiered support framework for teachers' classroom-management practices: Overview and case study of building the triangle for teachers. *Journal of Positive Behavior Interventions, 16*(3), 179-190. https://doi.org/10.1177/1098300713484062

What Works Clearinghouse. (2008, September). Reducing behavior problems in the elementary school classroom: A practice guide (NCEE #2008-012). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education. Retrieved from http://ies.ed.gov/ncee/wwc/Docs/PracticeGuide/behavior_

# Chapter 8 References

Adroin, N. M., Bowers, A. W., Roth, N. W., & Holthuis, N. (2018). Environmental education and K-12 student outcomes: A review and analysis of research. *The Journal of Environmental Education*, *49*(1), 1-17. https://doi.org/10.1080/00958964.2017.1366155

Alber-Morgan, S. R., Zavodney, A., & Gallmeyer, M. M. (2023). Teach students to maintain and generalize new learning across time and settings. *High leverage practices for intensive interventions*. Routledge.

Alberto, P. A., & Troutman, A. C. (2013). *Applied behavior analysis for teachers*. Pearson.

Archer, A. L., & Hughes, C. A. (2011). *Explicit instruction: Effective and efficient teaching*. Guilford Press.

Cipriano, C., Naples, L. H., Eveleigh, A., Cook, A., Funaro, M., Cassidy, C., & Rappolt-Schlichtmann, G. (2023). A systematic review of student disability andrace representation in universal school-based social and emotional learning interventions for elementary school students. *Review of Educational Research*, *93*(1), 73-102. https://doi.org/10.3102/00346543221094079

Collins, B. C. (2012). *Systematic instruction for students with moderate and severe disabilities*. Paul H. Brookes Publishing Company.

Collins, B. C., Lo, Y. Y., Park, G., & Haughney, K. (2018). Response prompting as an ABA-based instructional approach for teaching students with disabilities. *TEACHING Exceptional Children*, *50*(6), 343-355. https://doi.org/10.1177/0040059918774920

Durlak, J. A., Weissberg, R. P., Dymnicki, A. B., Taylor, R. D., & Schellinger, K. B. (2011). The impact of enhancing students' social and emotional learning: A metaanalysis of school-based universal interventions. *Child development*, *82*(1), 405-432. https://doi.org/10.1111/j.1467-8624.2010.01564.x

Gillespie, A., & Graham, S. (2014). A meta-analysis of writing interventions for students with learning disabilities. *Exceptional Children*, *80* (4), 454–473. doi:10.1177/0014402914527238

Graham, S., Harris, K. R., Kiuhara, S. A., & Fishman, E. J. (2017). *Elementary School Journal 118*(1), 82-104. https://doi.org/10.1086/693009

Gresham, F. M., Sugai, G. & Horner, R. H. (2001). Interpreting outcomes of social skills training for students with high-incidence disabilities. *Exceptional Children, 67*, 331–344. https://doi.org/10.1177/001440290106700303

Harrison, J. R., Kwong, C., Evans, S. W., Peltier, C., Mathews, L., & Chatman, T. (2020). Game-based self-management: Addressing inattention during independent reading and written response. J*ournal of Applied School Psychology, 36*(1), 38-61. https://doi.org/10.1080/15377903.2019.1660748

Hock, M. F., Bulgren, J. A., & Brasseur-Hock, I. F. (2017). The strategic instruction model? The less addressed aspects of effective instruction for high school students with learning disabilities. *Learning Disabilities Research & Practice, 32*(3). https://doi.org/10.1111/ldrp.12139

Jitendra, A. K., Burgess, C., & Gajria, M. (2011). Cognitive strategy instruction for improving expository text comprehension of students with learning disabilities: The quality of evidence. *Exceptional Children, 77*, 135–159. doi:10.1177/001440291107700201

Kellems, R. O., Osbornea, K., Roweb, D., Gabrielsena, T., Hansena, B., Sabeya, C., Fraziera, B., Simonsa, K., Jensena, M., Zarua, M., & Clivec, M., (2020). Teaching conversation skills to adults with developmental disabilities using a video-based intervention package. *Journal of Vocational Rehabilitation, 53*(1), 119-130. https://doi.org/10.1177/001440290106700303

Lee, I., Grover, S., Martin, F., Pillai, S., & Malyn-Smith, J. (2020). Computational thinking from a disciplinary perspective: Integrating computational thinking in K-12 science, technology, engineering, and mathematics education. *Journal of Science Education and Technology, 29*, 1-8. https://doi.org/10.1007/s10956-019-09803-w

Lein, A. E., Jitendra, A. K., & Harwell, M. R. (2020). Effectiveness of mathematical word problem solving interventions for students with learning disabilities and/or mathematics difficulties: A meta-analysis. *Journal of Educational Psychology, 112*(7), 1388–1408. https://doi.org/10.1037/edu0000453

Markelz, A., Riden, B., Floress, M. T., Balint-Langel, K., Heath, J., Pavelka, S. (2019). Teachers' use of specific, contingent, and varied praise. *Journal of Positive Behavior Interventions, 24*(2). https://doi.org/10.1177/1098300720988250

Martin, G., & Pear, J. J. (2019). *Behavior modification: What it is and how to do it.* Routledge.

McDaniel, S. C., Bruhn, A. L., & Troughton, L. (2017). A brief social skills intervention to reduce challenging classroom behavior. *Journal of Behavioral Education, 26*, 53-74. https://doi.org/10.1007/s10864-016-9259-y

McLeskey, J., Barringer, M-D., Billingsley, B., Brownell, M., Jackson, D., Kennedy, M., Lewis, T., Maheady, L., Rodriguez, J., Scheeler, M. C., Winn, J., & Ziegler, D. (2017). *High-leverage practices in special education.* Council for Exceptional Children.

Miltenberger, R. G. (2016). *Behavior modification: Principles and procedures.* Cengage Learning.

Montague, M., & Dietz, S. (2009). Evaluating the evidence base for cognitive strategy instruction and mathematical problem solving. *Exceptional Children, 75*, 285–302. https://doi.org/10.1177/001440290907500302

Nelson, G., Cook, S. C., Zarate, K., Powell, S. R., Maggin, D. M., Drake, K. R., Kiss, A.J., Ford, J. W., Sun, L. & Espinas, D. R. (2022). A systematic review of meta-analyses in special education: Exploring the evidence base for high-leverage practices. *Remedial and Special Education, 43*(5), 344-358. https://doi.org/10.1177/07419325211063491

Newell, A. (1990). *Unified theories of cognition*. Harvard University Press.

Pressley, M. (2002). Comprehension strategies instruction: A turn-of-the-century status report. In *Comprehension instruction: Research-based best practices. Solving problems in the teaching of literacy*. Guilford Publications.

Roberts, G. J., Solis, M., Ciullo, S., McKenna, J. W., Vaughn, S. (2015). Reading interventions with behavioral and social skills outcomes: A synthesis of research. *Behavior Modification*, *39*(1), 8-42. https://doi.org/10.1177/0145445514561318

Rosenshine, B., & Meister, C. (1992). The use of scaffolds for teaching higher-level cognitive strategies. *Educational Leadership*, *49*(7), 26–33.

Sanders, S., Losinski, M., Parks Ennis, R., White, W., Teagarden, J., & Lane, J. (2019). A meta-analysis of self-regulated strategy development reading interventions to improve the reading comprehension of students with disabilities. *Reading & Writing Quarterly*, *35*(4), 339-353. https://doi.org/10.1080/105735 69.2018.1545616

Schumaker, J. B., Denton, P. H., & Deshler, D. D., (1984). *The Paraphrasing Strategy*. University of Kansas.

Schumaker, J. B., Fisher, J. B., & Walsh, L. D. (2019). Effects of computerized instruction on the use of punctuation strategies by students with LD. *Learning Disabilities Research & Practice*, *34*(3), 158-170. https://doi.org/10.1111/ldrp.12203

Scott, T. M. (2023). Teach social behavior. In J. McLeskey, L. Maheady, B.Billingsley, M. Brownell, T.J. Lewis, & S. R. Alber-Morgan, (Eds.). *High leverage practices for intensive interventions*. Routledge.

Skinner, C. H., & Daly, E. J. (2010). Improving generalization of academic skills: Commentary on the special issue. *Journal of Behavioral Education*, *19*, 106-115.

Snyder, S., & Cagliani, R. (2022). Teach students with extensive support needs to maintain and generalize new learning across time and settings. *High Leverage practices and students with extensive support needs*. (pp. 136-148). Council for Exceptional Children, Routledge.

Taylor, J. C., & Riden, B. S. (2021). Practice strategies and considerations to promote maintenance and generalization. *Beyond Behavior*, *30*(2), 7. https://doi.org/10.1177/10742956211021502

Vaughn, S., & Wanzek, J. (2023). Promoting adolescents' comprehension of text: Efficacy and effectiveness. *Remedial and Special Education*, *00*(0), 1-10. https://doi.org/10.1177/07419325231190805

Vernon, D. S., & Schumaker, J. B. (2022). Effects of computerized social skills instruction for at-risk adolescents. *Journal of Special Education Technology*, *37*(2), 225-240. https://doi.org/10.1007/s10803-021-05127-0

Welter, V. D. E., Becker, L. B., & Großschedl, J. (2022). Helping learners become their own teachers: The beneficial impact of trained concept-mapping-strategy use on metacognitive regulation in learning. *Education Sciences*, *12*(5), 325.  https://doi.org/10.3390/educsci12050325

Wisniewski, B., Zierer, K., & Hattie, J. (2020). The power of feedback revisited: A meta-analysis of educational feedback research. *Frontiers in Psychology* (22). https://doi.org/10.3389/fpsyg.2019.03087

# Chapter 9 References

Archer, A. L., & Hughes, C. A. (2011). *Explicit instruction: Effective and efficient teaching*. The Guilford Press.

Assistive Technology Act, 29 U.S.C. § Sec 2202 (2004).

Ault, M. J., & Horn, C. K. (2018). Increasing active engagement: Guidelines for using student response systems. *Journal of Special Education Technology*, *33*(3), 207-216. https://doi.org/10.1177/0162643418775745

Alber-Morgan, S. R., Zavodney, A., & Gallmeyer, M. M. (2023). Teach students to maintain and generalize new learning across time and settings. *High leverage practices for intensive interventions*. (pp 308-319). Council for Exceptional Children, Routledge.

Barnes, Z. T., Fields, R. S., Strachota, S., & Mangione, K. A. (2023). Effective disciplinary literacy strategies for students with disabilities in middle and high school science classrooms. *Preventing School Failure: Alternative Education for Children and Youth*.  https://doi.org/10.1080/1045988x.2023.2186340

Billingsley, B., Brownell, M., Israel, M., & Kaaman, M. (2013). *A survival guide for new special educators*. Jossey-Bass Teacher.

Bouck, E. C. (2016). *Assistive Technology*. Sage.

Brookhart, S. M. (2008). *How to give effective feedback to your students*. ASCD.

Calvin, K. L., & Gray, S. (2020). Double-bubble thinking maps and their effect on reading comprehension in Spanish-English bilingual middle school students with learning disabilities. *Learning Disability Quarterly*, *45*. https://doi.org/10.1177/0731948720958644

Clarke, L. S., Haydon, T., Bauer, A., & Epperly, A. C. (2016). Inclusion of students with an intellectual disability in the general education classroom with the use of response cards. *Preventing School Failure: Alternative Education for Children and Youth*, *60*(1), 35-42. https://doi.org/10.1080/1045988x.2014.966801

Coalition for Psychology in Schools and Education. (2015). *Top 20 principles from psychology for preK–12 teaching and learning.* American Psychological Association. http:// www.apa.org/ed/schools/ cpse/top-twenty-principles.pdf

Colón, G., Zgliczynski, T., & Maheady, L. (2022). Using flexible grouping. In McLeskey, J., Maheady, L., Billingsley, B., Brownell, M. T., Lewis, T. J. (Eds.), *High leverage practices for inclusive classrooms* (2nd ed., pp. 265-281). Routledge. https://doi.org/10.4324/9781003148609-23

Council for Exceptional Children. (2016). Preparation standards. In *What every special educator must know: Professional ethics and standards* (pp. 19–34). Author.

Council of Chief State School Officers. (2011). In *TASC model core teaching standards: A resource for state dialogue*. Author. Retrieved from www.ccsso.org/documents/2011/intasc_model_core_teaching_standards_2011.pdf

Deans for Impact. (2015). *The science of learning*. Retrieved from www. deansforimpact.org/the_science_of_learning.html

Dexter, D. D., & Hughes, C. A. (2011). Graphic organizers and students with learning disabilities: A meta-analysis. *Learning Disability Quarterly*, *34*, https://doi.org/10.1177/073194871103400104

Doabler, C. T., Nelson, N. J., & Clarke, B. (2016). Adapting evidence-based practices to meet the needs of English learners with mathematics difficulties. *TEACHING Exceptional Children*, *48*, 301–310. https://doi.org/10.1177/0040059916650638

Doabler, C. T., Stoolmiller, M., Kennedy, P. C., Nelson, N. J., Clarke, B., Gearin, B., Fien, H., Smolkowski, K., & Baker, S. K. (2019). Do components of explicit instruction explain the differential effectiveness of a core mathematics program for kindergarten students with mathematics difficulties? A mediated moderation analysis. *Assessment for Effective Intervention*, *44*(3), 197-211. https://doi.org/10.1177/1534508418758364

Duchaine, E. L., Jolivette, K., Fredrick, L. D., & Alberto, P. A. (2018). Increase engagement and achievement with response cards: Science and mathematics inclusion classes. *Learning Disabilities: A Contemporary Journal*, *16*(2), 157-176. https://doi.org/10.25148/etd.fidc001739

Dykstra Steinbrenner, J. R., & Watson, L. R. (2015). Student engagement in the classroom: The impact of classroom, teacher, and student factors. *Journal of Autism and Developmental Disorders*, *45*, 2392-2410. https://doi.org/10.1007/s10803-015-2406-9

Evmenova, A. S., & Regan, K. (2019). Supporting the writing process with technology for students with disabilities. *Intervention in School and Clinic*, *55*. https://doi.org/10.1177/1053451219837636

Evmenova, A., Regan, K., & Hutchison, A. (2020). AT for writing: Technology-based graphic organizers with embedded supports. *TEACHING Exceptional Children*, *52*(4), 266-269. https://doi.org/10.1177/00400599209075

Graham, S., Bollinger, A., Olson, C. B., D'Aoust, C., MacArthur, C., McCutchen, D., & Olinghouse, N. (2012). *Teaching elementary school students to be effective writers: A practice guide*. NCEE 2012-4058. What Works Clearinghouse.

Gregg, N. (2012). Increasing access to learning for the adult basic education learner with learning disabilities: Evidence-based accommodation research. *Journal of Learning Disabilities*, *45*, 47-63. https://doi.org/10.1177/0022219411426855

Groccia, J. E. (2018). What is student engagement?. *New directions for teaching and learning*, (154), 11-20. https://doi.org/10.1002/tl.20287

Harbour, K. E., Evanovich, L. L., Sweigart, C. A., & Hughes, L. E. (2015). A brief review of effective teaching practices that maximize student engagement. *Preventing School Failure: Alternative Education for Children and Youth*, *59*(1), 5-13. https://doi.org/10.1080/1045988X.2014.919136

Hattie, J. (2008). *Visible learning: A synthesis of over 800 meta-analyses relating to achievement*. Routledge.

Hattie, J., & Timperley, H. (2007). The power of feedback. *Review of Educational Research*, *77*, 81–112. https://doi.org/10.3102/003465430298487

Hollenbeck, K., Tindal, G., & Almond, P. (1998). Teachers' knowledge of accommodations as a validity issue in high-stakes testing. *The Journal of Special Education*, *32*(3), 175-183. https://doi.org/10.1177/002246699803200

Hollingshead, A., Zabala, J., & Carson, J. (2021). The SETT framework and evaluating assistive technology remotely. *Special Education TODAY blog*, Council for Exceptional Children. https://exceptionalchildren.org/blog/sett-framework-and-evaluating-assistive-technology-remotely

Hovey, K. A., Miller, R. D., Kiru, E. W., Gerzel-Short, L., Wei, Y., & Kelly, J. (2019). What's a middle school teacher to do? Five evidence-based practices to support English learners and students with learning disabilities. *Preventing School Failure: Alternative Education for Children and Youth*, *63*. https://doi.org/10.1080/1045988X.2019.1565753

Howorth, S. K,. & Kennedy, M. J. (2021). High Leverage Practice 19: Use assistive and instructional technology. *TEACHING Exceptional Children*. https://doi.org/10.1177/0040059921995661.

Hughes, C. A., Morris, J. R., Therrien, W. J., & Benson, S. K. (2017). Explicit instruction: Historical and contemporary contexts. *Learning Disabilities Research & Practice*, *32*(3), 140-148. https://doi.org/10.1111/ldrp.12142

Jimenez, B. A., Lo, Y.Y., & Saunders, A. F. (2014). Augmentative and alternative communication in the classroom: Teacher practices and experiences. *Journal of Special Education*, *47*(4), 231-244.

Kaczorowski, T., McMahon, D., Gardiner-Walsh, S., & Hollingshead, A. (2022). Designing an inclusive future: Including diversity and equity with innovations in special education technology. T*EACHING Exceptional Children*. Online first. https://doi.org/10.1177/00400599221090506

Kennedy, M. J., & Boyle, J. R. (2021). That really escalated quickly—online learning moves into the mainstream: Introduction to the special issue. *Journal of Special Education Technology*, *36*(2), 63-66. https://doi.org/10.1177/01626434211006052

Kennedy, M. J., McDonald, S. D., Griendling, L. M., VanUitert, V. J., & Kunemund, R. L. (2022). Comparing two established multimedia approaches for teaching vocabulary to students with and without disabilities. *Journal of Special Education Technology*, *38*(2), 115-130. https://doi.org/10.1177/01626434221074055

Kennedy, M. J., & Romig, J. E. (2021). Cognitive load theory: An applied reintroduction for special and general educators. *TEACHING Exceptional Children*, 1-12. https://doi.org/10.1177/00400599211048214

Kladis, K., Hawken, L. S., O'Neill, R. E., Fischer, A. J., Fuoco, K. S., O'Keeffe, B. V., & Kiuhara, S. A. (2023). Effects of check-in check-out on engagement of students demonstrating internalizing behaviors in an elementary school setting. *Behavioral Disorders*, *48*(2), 83-96. https://doi.org/10.1177/0198742920972107

Klingner, J., & Edwards, P. (2006). Cultural considerations with response to intervention models. *Reading Research Quarterly*, *41*(1), 108-117. https://doi.org/10.1598/RRQ.41.1.6

Kroesch, A. M., Peeples, K. N., Pleasant, C. L., & Cuenca-Carlino, Y. (2022). Let's argue: Developing argumentative writing skills for students with learning disabilities. *Reading & Writing Quarterly*, *38*(5), 399-414. http://doi.org/ 10.1080/10573569.2021.1970659

Lambert, M. C., Cartledge, G., Heward, W. L., & Lo, Y. Y. (2006). Effects of response cards on disruptive behavior and academic responding during math lessons by fourth-grade urban students. *Journal of Positive Behavior Interventions*, *8*(2), 88-99. https://doi.org/10.1177/10983007060080020701

Leatherman, E. M., & Wegner, J. R. (2022). The additive effects of scripted lessons plus guided notes on science quiz scores of students with intellectual disability and autism. *Language, Speech, & Hearing Services in Schools*, *53*(3), 874-893.

Long, H., Bouck, E., & Domka, A. (2021). Manipulating algebra: Comparing concrete and virtual algebra tiles for students with intellectual and developmental disabilities. *Exceptionality*, *29*(3), 197-214.

Losinski, M. L., Ennis, R. P., Sanders, S. A., & Nelson, J. A. (2019). A meta-analysis examining the evidence-base of mathematical interventions for students with emotional disturbances. *The Journal of Special Education*, *52*(4), 228-241.

Lovett, B. J. (2021). Educational accommodations for students with disabilities: Two equity-related concerns. *Frontiers in Education*, *6*(795266), 1-5. https://doi.org/10.3389/feduc.2021.795266

Maheady, L., Rolf, K. R., & Slocum, T. (2023). Use flexible grouping. In J. McLeskey, L. Maheady, B. Billingsley, M. T. Brownell, T. J. Lewis, & S. R. Alber-Morgan. *High-leverage practices for intensive interventions* (pp. 267-282). Routledge.

Marino, M. T., Vasquez, E., Dieker, L., Basham, J., & Blackorby, J. (2023). The future of artificial intelligence in special education technology. *Journal of Special Education Technology*, *38*(3), 404-416. https://doi.org/10.1177/01626434231165977

Mariage, T. V., & Hicks, E. A. (2023). *High leverage practices for intensive interventions*. Routledge.

Mariage, T., V., Englert, C. S., & Mariage, M. F. (2019). Comprehension instruction for Tier 2 early learners: A scaffolded apprenticeship for close reading of informational text. *Learning Disability Quarterly*, *43*(1), 29-42. https://doi.org/10.1177%2F0731948719861106

Mason, L. H., Ciullo, S., Collins, A. A., Brady, S., Elcock, L. & Owen, L. S. (2022). Exploring inclusive middle school content teachers' training, perceptions, and classroom practice for writing. *Learning Disabilities—A Contemporary Journal*, *20*(2), 111-128.

Mason, L. H., Harris, K. R., & Graham, S. (2011). Self-regulated strategy development for students with writing difficulties. *Theory into Practice*, *50*(1), 20-27.

Mastropieri, M. A., Scruggs, T. E., & Regan, K. S. (2024). *The inclusive classroom: Strategies for effective differentiated instruction* (7th ed.). Pearson.

McDonald, S. D., Kennedy, M. J., & Hall, C. (2023). Effects of multimedia academic vocabulary instruction for linguistically diverse fifth graders in a rural setting. *Reading & Writing Quarterly*, DOI: 10.1080/10573569.2023.2178043

McKenna, J. W., Flower, A., Kyung Kim, M., Ciullo, S., & Haring, C. (2015). A systematic review of function-based interventions for students with learning disabilities. *Learning Disabilities Research & Practice, 30*(1), 15-28.

McLeskey, J., & Brownell, M. (2015). *High-leverage practices and teacher preparation in special education* (Document No. PR-1). University of Florida, Collaboration for Effective Educator, Development, Accountability, and Reform Center. http://ceedar.education.ufl.edu/tools/best-practice-review/

McLeskey, J., Barringer, M-D., Billingsley, B., Brownell, M., Jackson, D., Kennedy, M., Lewis, T., Maheady, L., Rodriguez, J., Scheeler, M. C., Winn, J., & Ziegler, D. (2017). *High-leverage practices in special education*. Council for Exceptional Children & CEEDAR Center. https://doi.org/10.4324/9781315176093

McMahon, D., & Hollingshead, A. (2021). ISET's stance on special education technology and diversity, equity, and inclusion (special announcement). *Journal of Special Education Technology*, *36*(3), 183-184.

National Board for Professional Teaching Standards. (2012). *Early childhood generalist standards* (3rd ed.). NBPTS. http://www.nbpts.org/sites/default/files/documents/certificates/nbptscertificate ec-gen-standards.pdf

Nelson, G., Cook, S. C., Zarate, K., Powell, S. R., Maggin, D. M., Drake, K. R., Kiss, A. J., Ford, J. W., Sun, L., & Espinas, D. R. (2022). A systematic review of meta-analyses in special education: Exploring the evidence base for high-leverage practices. *Remedial and Special Education*, *43*, 344-368. https://doi.org/10.1177/07419325211063491

Powell, S. R., Bouck, E. C., & Freeman-Green, S. (2022). Essential components of math instruction. *TEACHING Exceptional Children*, *56*.  https://doi.org/10.1177/00400599221125892

**194   References**

Prado, Y., Jacob, S., & Warschauer, M. (2021). Teaching computational thinking to exceptional learners: Lessons from two inclusive classrooms. *Computer Science Education*. https://doi.org/10.1080/0899340 8.2021.1914459

Randolph, J. J. (2007). Meta-analysis of the research on response cards: Effects on test achievement, quiz achievement, participation, and off-task behavior. *Journal of Positive Behavior Interventions*, *9*(2), 113-128. https://doi.org/10.1177/10983007070090020201

Rao, K., Torres, C., & Smith, S. J., (2021). Digital tools and UDL-Based instructional strategies to support students with disabilities online. *Journal of Special Education Technology* *36(2)*, 105-112. https://doi. org/10.1177/0162643421998327

Schumaker, J. B. (2021). The effects of computerized sentence and paragraph strategy instruction for struggling adolescent writers. *Journal of Special Education Technology*, *37*. https://doi. org/10.1177/0162643420976167

Schumaker, J., & Fisher, J. B. (2021). 35 years on the road from research to practice: A review of studies on four content enhancement routines for inclusive subject-area classes, Part 1. *Learning Disabilities Research & Practice, 36*(3). https://doi.org/10.1111/ldrp.12258

Shriner, J. G., & Ganguly, R. (2007). Assessment and accommodation issues under the No Child Left Behind Act and the Individuals with Disabilities Education Improvement Act—Information for IEP teams. *Assessment for Effective Intervention*, *32*, 231-243. https://doi.org/10.1177/15345084070320040 501

Stevens, E. A., Rodgers, M. A., & Powell, S. R. (2018). Mathematics interventions for upper elementary and secondary students: A meta-analysis of research. *Remedial and Special Education*, *39*(6), 327-340. https://doi.org/10.1177/0741932517731887

Sweller, J., Ayres, P., & Kalyuga, S. (2011). *Cognitive Load Theory*. Springer New York.

The IRIS Center - Peabody College Vanderbilt University Nashville. (2022). *Understanding accommodations*. Iris Center. https://iris.peabody.vanderbilt.edu/micro-credential/micro-accommodations/p01/

Thurlings, M., Vermeulen, M., Bastiaens, T., & Stijnen, S. (2013). Understanding feedback: A learning theory perspective. *Educational Research Review*, *9*, 1–15. doi:10.1016/j.edurev.2012.11.004

Thurlow, M., & Bolt, S. (2001). E*mpirical support for accommodations most often allowed in state policy* (Synthesis Report 41). University of Minnesota, National Center on Educational Outcomes.

Thurlow, M. L., & Kopriva, R. J. (2015). Advancing accessibility and accommodations in content assessments for students with disabilities and English learners. *Review of Research in Education*, *39*, 331-369. https://doi.org/10.3102/0091732X14556076

U.S. Department of Education: Office of Educational Technology. (2017). Reimagining the role of technology in education: 2017 national education technology plan update. https://tech.ed.gov/files/2017/01/NETP17.pdf

Van Dijk, W., & Gage, N. A.(2019). The effectiveness of visual activity schedules for individuals with intellectual disabilities: A meta-analysis. *Journal of Intellectual & Developmental Disability, 44*(4), 384-395.

Vernon, D. S., & Schumaker, J. B. (2021). Effects of computerized social skills instruction for at-risk adolescents. *Journal of Special Education Technology*, *37*. doi: 10.1177/016264321997043

Vygotsky, L. S., & Cole, M. (1978). *Mind in Society: Development of Higher Psychological Processes.* Harvard University Press. https://doi.org/10.1177/01626434211006052

Wanzek, J., Stevens, E. A., Williams, K. J., Scammacca, N., Vaughn, S., & Sargent, K. (2018). Current evidence on the effects of intensive early reading interventions. *Journal of Learning Disabilities*, *51*(6), 612-624. https://doi.org/10.1177/0022219418775110

Witmer, S. E., Cook, E., Schmitt, H., & Clinton, M. (2015). The read-aloud accommodation during instruction: Exploring effects on student self-perceptions and academic growth. *Learning Disabilities: A Contemporary Journal, 13*, 95-109.

What Works Clearinghouse. (2009a,). A*ssisting students struggling in reading: Response to intervention (RtI) and multi-tier intervention in the primary grades* (NCEE 2009-4045). National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education. https://ies.ed.gov/ncee/wwc/Docs/ PracticeGuide/rti_reading_pg_021809.pdf

What Works Clearinghouse. (2009b,). *Assisting students struggling with mathematics: Response to Intervention (RtI) for elementary and middle schools* (NCEE 2009-4060). National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education. http://ies.ed.gov/ncee/wwc/Docs/PracticeGuide/ rti_math_pg_042109.pdf

What Works Clearinghouse. (2012). *Educator's practice guide: Teaching elementary school students to be effective writers* (NCEE 2012-4058). National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education. http://ies.ed.gov/ncee/wwc/ Docs/practiceguide/writing_ pg_062612.pdf

What Works Clearinghouse. (2014). *Educator's practice guide: Teaching academic content and literacy to English learners in elementary and middle school* (NCEE 2014-4012). Institute of Education Sciences, U.S. Department of Education.

Wisniewski, B., Zierer, K., & Hattie, J. (2020). The power of feedback revisited: A meta-analysis of educational feedback research. *Frontiers in Psychology,* (*22*). https://doi.org/10.3389/fpsyg.2019.03087

Ysseldyke, J., Thurlow, M., Bielinski, J., House, A., Moody, M., & Haigh, J. (2001). The relationship between instructional and assessment accommodations in an inclusive state accountability system. *Journal of Learning Disabilities*, *34*(3), 212-220. https://doi.org/10.1177/002221940103400

Zabala, J. (2005). Ready, SETT, go! Getting started with the SETT framework. *Closing the Gap: Computer Technology in Special Education and Rehabilitation, 23*(6), 1-3.

# Domain Four: Overview Reference

Biklen, D., & Burke, J. (2006). Presuming competence. *Equity & Excellence in Education, 39(2)*,166-175.

# Chapter 10 References

Bruhn, A. L., Balint-Langel, K., Troughton, L., Langan, S., Lodge, K., & Kortemeyer, S. (2015). Assessing and treating stereotypical behaviors in classrooms using a functional approach. *Behavioral Disorders, 41*(1), 21–37. https://doi.org/10.17988/0198-7429-41.1.21

Bruhn, A. L., & Lewis, T. J. (2015). Functional behavioral assessment: Eighteen years later. *Behavioral Disorders, 41*(1), 3–4. https://doi.org/10.17988/0198-7429-41.1.3

Filderman, M. J., Toste, J. R., Didion, L. A., Peng, P., & Clemens, N. H. (2018). Data-based decision making in reading interventions: A synthesis and meta-analysis of the effects for struggling readers. *The Journal of Special Education, 52*(3), 174-187. https://doi.org/10.1177/0022466918790001

Fox, J., & Davis, C. (2005). Functional behavioral assessment in schools: Current research findings and future directions. *Journal of Behavioral Education, 14*(1), 1–4. https://doi.org/10.1007/s10864-005-0957-0

Fuchs, D., Fuchs, L. S., & Vaughn, S. (2014). What is intensive instruction and why is it important? *TEACHING Exceptional Children, 46*(4), 13–18. https://doi.org/10.1177/0040059914522966

Fuchs, L. S., Fuchs, D., Hamlett, C. L., & Stecker, P. M. (2021). Bringing data-based individualization to scale: A call for the next-generation technology of teacher supports. *Journal of Learning Disabilities, 54*(5), 319–333. https://doi.org/10.1177/0022219420950654

Fuchs, L. S., Fuchs, D., & Malone A. S. (2017). The taxonomy of intervention intensity. *TEACHING Exceptional Children, 50*(1), 35–43. https://doi.org/10.1177/0040059918758166

Gage, N. A., Lewis, T. J., & Stichter, J. P. (2012). Functional behavioral assessment-based interventions for students with or at-risk for emotional and/or behavioral disorders in school: A hierarchical linear modeling meta-analysis. *Behavioral Disorders, 37*, 55–77. https://doi.org/10.1177/019874291203700201

Gersten, R., Compton, D., Connor, C. M., Dimino, J., Santoro, L., Linan-Thompson, S., & Tilly, W. D. (2009). *Assisting students struggling with reading: Response to intervention and multi-tier intervention for reading in the primary grades* (NCEE 2009-4045). U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance. https://ies.ed.gov/ncee/wwc/PracticeGuide/3

Hawken, L. S., Crone, D. A., Bundock, K., & Horner, R. H. (2021). *Responding to problem behavior in schools: The check-in, check-out intervention* (3rd Ed). The Guilford Press.

Hirsch, S. E., Lewis, T. J., Griffith, C. A., Carlson, A., Brown, C., & Katsiyannis, A. (2023). An analysis of selected aspects of functional behavioral assessments and behavior intervention plans. *The Journal of Special Education*, *57*(3), 1–11. https://doi.org/10.1177/00224669221146168

Horner, R. H., & Sugai, G. (2005). Schoolwide positive behavior support: An alternative approach to discipline in schools. In L. Bambara & L. Kern (Eds.), *Positive behavior support* (pp. 359–390). Guilford Press.

Individuals with Disabilities Education Improvement Act of 2004, 20 U.S.C. § 1400 et seq. (2004).

Jung, P. G., McMaster, K. L., Kunkel, A. K., Shin, J., & Stecker, P. M. (2018). Effects of data–based individualization for students with intensive learning needs: A meta–analysis. *Learning Disabilities Research & Practice*, *33*(3), 144-155. https://doi.org/10.1111/ldrp.12172

Kuchle, L. B., & Riley-Tillman, T. C. (2019). Integrating behavior and academics in intervention planning. In R. Z. Edmonds, A. G. Gandhi, & L. C. Danielson (Eds.), *Essentials of intensive intervention* (1st ed., pp. 51–70). The Guilford Press.

Lemons, C. J., Vaughn, S., Wexler, J., Kearns, D. M., & Sinclair, A. C. (2018). Envisioning an improved continuum of special education services for students with learning disabilities: Considering intervention intensity. *Learning Disabilities Research & Practice, 33*(3), 131-143. https://doi.org/10.1111/ldrp.12173

Lewis, T.J., Mitchell, B.S., Harvey, K., Green, A., & McKenzie, J. (2015). A comparison of functional behavioral assessment and functional analysis methodology among students with mild disabilities. *Behavioral Disorders*, *41(1)*, 5-20. https://doi.org/10.17988/0198-7429-41.1.5

Lewis, T. J., Hatton, H. L., Jorgenson, C., & Maynard, D. (2017). What beginning special educators need to know about conducting functional behavioral assessments. *TEACHING Exceptional Children, 49*, 231–238. https://doi.org/10.1177/0040059917690885

Moreno, G., Wong-Lo, M., Short, M., & Bullock, L. M. (2014). Implementing a culturally attuned functional behavioural assessment to understand and address challenging behaviours demonstrated by students from diverse backgrounds. *Emotional and Behavioural Difficulties*, *19*(4), 343-355. https://doi.org/10.1080/13632752.2013.860682

Nagro, S. A., Hooks, S. D. Fraser, D. W., & Monnin, K. (2023). Provide intensive instruction. In J. McLeskey, L. Maheady, B. Billingsley, M. T. Brownell, T. J. Lewis, and S. R. Alber-Morgan (Eds.), *High leverage practices for intensive interventions* (1st ed., pp. 293–307). Routledge. https://doi.org/10.4324/9781003276876-25

National Center on Intensive Intervention. (2013). *Data-based individualization: A framework for intensive intervention*. American Institutes for Research. https://intensiveintervention.org/resource/data-based-individualization-framework-intensive-intervention

Nelson, G., Cook, S. C., Zarate, K., Powell, S. R., Maggin, D. M., Drake, K. R., Kiss, A. J., Ford, J. W., Sun, L. & Espinas, D. R. (2022). A systematic review of meta-analyses in special education: Exploring the evidence base for high-leverage practices. *Remedial and Special Education*, *43*(5), 344–358. https://doi.org/10.1177/07419325211063491

Payne, L. D., Scott, T. M., & Conroy, M. (2007). A school-based examination of the efficacy of function-based intervention. Behavioral Disorders, *32*(3), 158-174. https://doi.org/10.1177/019874290703200302

Pollack, M. S., & Lloyd, B. P. (2023). Conduct functional behavioral assessments to develop individual student behavior support plans. In J. McLeskey, L. Maheady, B. Billingsley, M. Brownell, T.J. Lewis, & S. R. Alber-Morgan, (Eds.), *High leverage practices for intensive interventions*. (1st ed., pp.149–162). Routledge.

U.S. Department of Education. (2016). *Functional behavioral assessment-based interventions: Children identified with or at risk for an emotional disturbance*. Institute of Education Sciences. https://ies.ed.gov/ncee/wwc/Docs/InterventionReports/wwc_fba_011017.pdf

U. S. Department of Education. (2022). *Positive, proactive approaches to supporting children with disabilities: A guide for stakeholders* (OSEP Policy Support 22-01, TA guide). https://sites.ed.gov/idea/files/guide-positive-proactive-approaches-to-supporting-children-with-disabilities.pdf

Wood, B. K., Umbreit, J., Liaupsin, C. J., & Gresham, F. M. (2007). A treatment integrity analysis of function-based intervention. *Education and Treatment of Children*, *30*(4), 105–120. https://doi.org/10.1353/etc.2007.0035

# Glossary

| Terms | Definition | Resource |
|-------|-----------|----------|
| **Academic learning time** | "Allocated time in a subject-matter area (physical education, science, or mathematics, for example) in which a student is engaged successfully in the activities or with the materials to which he or she is exposed, and in which those activities and materials are related to educational outcomes that are valued." | EduTechWiki (2007) |
| **Accommodations** | An accommodation is a tool, strategy, or support that allows students to access the general education curriculum. This allows students to engage with the grade level curriculum and demonstrate their knowledge and mastery of the learned skills and content. | The IRIS Center (2004a); Understood.org (n.d.) |
| **Assistive technology** | "Any item, piece of equipment, or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve the functional capabilities of a child with a disability." | IDEA, 20 U.S.C. § 1401(1) |
| **Auditory processing disorder** | A disorder related to how the central nervous system uses auditory information; it is not the result of other higher-order cognitive, language, or related disorder. | The American Speech-Language-Hearing Assiociation (ASHA; n.d.) |
| **Augmentative and alternative communication systems (AAC)** | Alternative methods of communication, which may include communication boards, communication books, sign language, and computerized voices, used by individuals unable to communicate readily through speech. | The American Speech-Language- Hearing Association (ASHA; n.d.) |
| **Baseline** | A starting point to measure a student's growth. The score received on a measure before any instruciton or intervention begins. | Hosp et al. (2016) |

| Terms | Definition | Resource |
|---|---|---|
| **Benchmark** | "A typical or expected performance level in a given skill (e.g., reading) that serves as a general indicator of a student's overall progress." | The IRIS Center (n.d.) |
| **Collaboration** | "A style for direct interaction between at least two coequal parties voluntarily engaged in shared decision making as they work toward a common goal."<br><br>"In educational settings this typically includes jointly "planning, implementing, or evaluating a specific aspect of an educational program for a student or group of students." | Friend & Cook (2017, p. 5);<br><br>The IRIS Moduel (2007, p. 3); Friend & Cook (2017); Friend et al., (2010); The IRIS Center (2004b) |
| **Comprehensive learner profile** | "Provides information about a students' academic, social and emotional, functional and motivation strengths and needs as a means of establishing how a student learns best (i.e., how the student gathers, processes, and applies information). Includes information about a students' interests, culture, and language. Teachers use the comprehensive learner profile to craft a robust IEP.<br><br>In developing the profile, teachers collect and analyze a variety of both summative and formative data gathered from a variety of sources including teachers, administrators, parents, related service providers, and community stakeholders." | Inclusive Education Planning Tool (2011); National Joint Committee on Learning Disabilities (2010) |
| **Content enhancements** | Strategies to augment the organization and delivery of curriculum content so that students can better access, interact with, understand, and retain information. | Deshler et al. (2001) |
| **Cooperative learning** | "Instructional arrangement in which heterogeneous (mixed ability) groups are employed as a method of maximizing the learning of everyone in those groups; also helps students to develop social skills and has been demonstrated to yield especially favorable results for students in at-risk groups, such as those with learning disabilities." | The IRIS Center ( n.d.) |
| **Corrective feedback** | Constructive comments provided as soon as possible following the implementation of an activity in order to help an individual improve his or her performance. | Archer & Hughes (2011) |
| **Co-teaching** | "The partnering of a general education teacher and a special education teacher or another specialist for the purpose of jointly delivering instruction to a diverse group of students, including those with disabilities, or other special needs, in a general education setting and in a way that flexibly and deliberately meets their learning needs." | Friend et al. (2010, p. 11) |

| Terms | Definition | Resource |
|---|---|---|
| **Criterion-referenced tests** | These assessments compare student performance to a standard for a specific skill. | Hosp et al.(2016); High-Leverage Practices for Students with Disabilities (Chapter 1) |
| **Cultural broker** | "A person with an understanding of multiple cultures who can mediate between groups of people from differing cultural backgrounds, can also help prepare educators for meetings (e.g., provide important information about cultural norms) with families and reduce conflict that may emerge from intersectional differences." | High-Leverage Practices for Students with Disabilities (Chapter 4) |
| **Culturally inclusive pedagogies and practices (CIPP)** | "Culturally inclusive pedagogies and practices (CIPP) are those theories and practices that have centered multiple layers of sociocultural diversity and understanding in the educational sphere. That is, considering the wholeness of context, content, and constructs (e.g., people, resources, environments, etc.) that intersect and interact in the education space and influence life-centered outcomes. CIPP challenges deficit-based understandings of disability, "presumes competence" (Biklen & Burke, 2006), and interrogates intersectional oppressions." | Biklen & Burke (2006) High-Leverage Practices for Students with Disabilities (Introduction) |
| **Culturally relevant** | "Addresses student achievement [and] also helps students to accept and affirm their cultural identity while developing critical perspectives that challenge inequities." | Ladson-Billings (1995, p. 469) |
| **Culturally responsive** | "Filters curriculum content and teaching strategies through their cultural frames of reference to make the content more personally meaningful and easier to master. …because it makes explicit the previously implicit role of culture in teaching and learning." | Gay (2018, p. 32) |
| **Culturally sustaining** | "Supporting multilingualism and multiculturalism in practice and perspective for students and educators…to perpetuate and foster—to sustain—linguistic, literate, and cultural pluralism as part of the democratic project of schooling." | Paris (2012, p. 95) |
| **Curriculum-based measurement (CBM)** | "A type of progress monitoring conducted on a regular basis to assess student performance throughout an entire year's curriculum; teachers can use CBM to evaluate not only student progress but also the effectiveness of their instructional methods." | The IRIS Center (n.d.) |

| Terms | Definition | Resource |
|---|---|---|
| **Data-based individualization** | The process of gradually individualizing and intensifying interventions through the systematic use of assessment data, validated interventions, and research- based adaptation strategies. | National Center on Intensive Intervention (2013) |
| **Differentiated instruction** | "An approach whereby teachers adjust their curriculum and instruction to maximize the learning of all students (e.g., typical learners, English language learners, struggling students, students with learning disabilities, gifted and talented students); not a single strategy but rather a framework that teachers can use to implement a variety of evidence-based strategies." | The IRIS Center (2010a, p. 1) |
| **Disproportionality** | The over- or underrepresentation "of racially, culturally, ethnically, or linguistically diverse groups of students in special education, restrictive learning environments, or school disciplinary actions (e.g., suspensions and expulsions), compared to other groups." | Center on Response to Intervention (2014) |
| **Embedded high-leverage practices** | Embedded high-leverage practices within this text support the implementation of pillar or essential high-leverage practices for educators. | High-Leverage Practices for Students with Disabilities (Preface) |
| **Emerging bilingual** | Students who speak a language other than English and are in the process of developing linguistic competencies in both languages with the support of their communities (e.g., parents, school, community). | Butvilofsky et al. (2017) |
| **Evidence-based practice** | An important component of evidence-based education is instructional practices shown to improve outcomes for specific populations of learners by multiple, high-quality experimental studies (Cook et al., 2020). We often refer to these as evidence-based practices or EBPs. Various educational organizations (e.g., WWC, CEC) have developed standards for identifying the amount of evidence from rigorous and methodologically sound studies needed for an educational practice to be labeled as an EBP. | Kennedy et al. (2020) |
| **Explicit instruction** | Instructional approach in which teachers clearly identify the expectations for learning, highlight important details of the concept or skill, offer precise instruction, and connect new learning to earlier lessons and materials. | Archer & Hughes (2011) |
| **Fidelity of implementation** | "Implementation of an intervention, program, or curriculum according to research findings and/or on developers' specifications." | RTI Action Network (n.d.) |
| **Flexible grouping** | "The ability for students to move among different groups based upon their performance and instructional needs." | RTI Action Network (n.d.) |

| Terms | Definition | Resource |
|---|---|---|
| Formative assessment | "Formative assessments are formal and informal methods for collecting data for the purpose of improving instruction. These should be brief and occur during and/or immediately following all lessons." | Alber-Morgan et al. (2022, p. 164) |
| Functional behavioral assessment (FBA) | A systematic approach to address a student's specific behavior to identify the behavior's function using informal and formal methods of observation. Following the FBA, the IEP team develops an individual behavior support plan. | Behavioradvisor.com (n.d.) |
| Generalization | Performing a behavior or task in environments that differ from the behavior or task was origially learned. | Lee & Axelrod (2005) |
| Grade level equivalent | Grade-level equivalent scores are determined by giving a test that is developed for a particular grade to students in other grades. | Eissenberg & Rudner (1988) |
| Graphic organizer | "A visual aid designed to help students organize and comprehend substantial amounts of text and content information." | The IRIS Center (2012, p. 11) |
| Guided notes | "A strategic note-taking method in which teachers provide their students an outline containing the main ideas and related concepts in order to help guide the students through a lecture." | The IRIS Center (n.d.) |
| Guided practice | "A method of practice that involves working with students on activities that focus on a previously modeled or taught skill." | IRIS Center (n.d.) |
| Heterogeneous grouping | To place students of varying abilities (i.e., lower achieving, typically achieving, higher achieving) together in a small instructional group. | Lewis (2016a) |
| High-leverage practices | Windschitl and colleagues (2012) defined HLPs as "a set of practices that are fundamental to support K-12 student learning, and that can be taught, learned, and implemented by those entering the profession" (p. 880). The focus was to equip educators with specific practices they could use in the classroom by building their knowledge and skill in applied domains (Grossman et al., 2009). | McLeskey et al. (2017) |
| Homogeneous grouping | To place students of similar abilities together into groups; can be used by teachers to provide more intensive instruction to students who are working at a similar level and who can benefit from instruction that is designed for their specific learning needs. | Lewis (2016b) |
| Individual behavior support plan | A plan developed following a functional behavior assessment to specify how the pro-social behavior will be taught and any modifications to the classroom and other environments needed to reinforce the appropriate behavior. | Loman et al.(2013) |

| Terms | Definition | Resource |
|---|---|---|
| **Individualized family services plan (IFSP)** | A means of providing early intervention services for children with developmental delays or disabilities, from birth through age 3. The IFSP is based on an in-depth assessment of the child's needs and includes information on the child's level of development in all areas, outcomes for the child and family, and services the child and family will receive. | PACER Center (2011) |
| **Individual education program (IEP)** | "A written statement for the child with a disability that is developed, reviewed, and revised in a meeting in accordance with federal law and regulations.<br><br>The IEP must include a statement of the child's present levels of academic achievement and functional performance, a statement of measurable annual academic and functional goals to meet the child's needs and enable the child to make progress in the general education curriculum." | IDEA regulations, 34 C.F.R. § 300.320– 300.324<br><br>See U.S. Department of Education (2006) |
| **Instructional technology** | "Any device or instrument that exists in a classroom and that teachers use for the purpose of day-to-day instruction; such devices, when assigned to an individual student through an IEP, are known as assistive technology." | The IRIS Center (n.d.). |
| **Intensive instruction** | Additional instruction designed to support and reinforce classroom skills characterized by increased intensity and individualization based on data. | The IRIS Center (2015, p. 1) |
| **Intersectionality** | "A framework that interrogates the layered experiences of folx who are more likely to experience simultaneous macro- and micro- "interlocking oppressions." | Collins (2012); High-Leverage Practices for Students with Disabilities (Chapter 2) |
| **Keyword method** | A mnemonic strategy in which students use a keyword and a related sentence or image to help them to remember new information. | Mastropieri et.al. (1985) |
| **Maintenance** | In behavior assessment, term used to describe the extent to which a student's behavior is self-sustaining over time. | Potterfield (2009– 2013) |
| **Meta-analysis** | Method of reviewing research on a given practice or program in which a systematic and reproducible literature search is conducted, specific criteria are used for including research studies in the analysis, and the combined statistical results of these studies yield an effect size for the practice or program across the studies reviewed. | Israel & Richter (2017) |

| Terms | Definition | Resource |
|---|---|---|
| **Metacognition** | The processes used to plan, monitor, and assess one's understanding and performance. | Chick (2017) |
| **Microcultures** | Microcultures are personal identity and related characteristics that intersect to inform the ways in which we perceive and understand ourselves and others (Gollnick & Chinn, 2017). | Gollnick & Chinn (2017); High-Leverage Practices for Students with Disabilities (Chapter 4) |
| **Mnemonics** | A learning strategy in which a verbal device is employed to help promote the memorization of names or other information. | The IRIS Center (n.d.) |
| **Modifications** | A modification is a change to the curriculum or instruction that alters what students are expected to learn and master. Modifications should occur after appropriate accommodations have been considered and documentation from assessments indicate changes to the content and curriculum are required for the student to progress toward the general education standards. | Understood.org (n.d.) The IRIS Center (2004a) |
| **Multitiered system of supports (MTSS)** | "A multi-tiered system of supports (MTSS) is a proactive and preventative framework that integrates data and instruction to maximize student achievement and support students social, emotional, and behavior needs from a strengths-based perspective. MTSS offers a framework for educators to engage in data-based decision making related to program improvement, high-quality instruction and intervention, social and emotional learning, and positive behavioral supports necessary to ensure positive outcomes for districts, schools, teachers, and students." | Center on Multitiered System of Supports (n.d.) |
| **Norm-referenced assessment** | "A standardized assessment tool that compares a student's test scores to the average score of a representative group." | The IRIS Center (n.d.) |
| **Paraeducators** | "Paraeducators work in general education and special education classrooms, nonclassroom school settings (e.g., cafeteria, playground), and community-based learning sites supporting an entire classroom of students or individual students with disabilities. Paraeducators provide individualized services to students with disabilities through a range of tasks directed by the instructional team consisting of licensed professionals responsible for planning and implementing specially designed services for students with disabilities." | Council for Exceptional Children (2022) |
| **Peer tutoring** | A cooperative learning strategy that pairs a student with disabilities with a typically developing student; either student may adopt the role of teacher or learner. | The IRIS Center (2010b, p. 7) |

| Terms | Definition | Resource |
|---|---|---|
| **Pillar practices** | "Pillar practices (within this text) are the most essential high-leverage practices for educators to master and implement." | High-Leverage Practices for Students with Disabilities (Preface) |
| **Progress monitoring** | The process of collecting, analyzing, interpreting, and acting upon data to assess a student's performance and improvement in response to intervention. Progress monitoring allows teachers to evaluate the effectiveness of interventions adjust instruction to meet students' needs. Progress monitoring can be implemented with individual students or groups of students (e.g., whole class). | Center on Response to Intervention (2014); The IRIS Center (2004b, p. 1); Stockall et al. (2014) |
| **Randomized control trials** | A research design where participants are randomly assigned to groups in which they may or may not receive the intervention. This research method produces the best evidence of causality. | Cook & Cook (2016) |
| **Reflexivity** | Reflexivity involves individuals critically examining the influence of their thoughts, attitudes, assumptions, habits, and biases. | Bolton (2010); High-Leverage Practices for Students with Disabilities (Chapter 4) |
| **Scaffolding instruction** | "A process through which a teacher adds supports for students to enhance learning and aid in the mastery of tasks. The teacher does this by systematically building on students' experiences and knowledge as they are learning new skills." | The IRIS Center (2005, p. 1) |
| **Self-regulated strategy development (SRSD)** | A scientifically validated framework for explicitly teaching academic strategies that incorporates steps critical to a student's ability to effectively use those strategies. | The IRIS Center (2008, p. 3) |
| **Self-regulation** | "A person's ability to regulate his or her own behavior." | The IRIS Center (n.d.) |
| **Special education process** | "The activities that occur from the time a child is referred for evaluation through being identified with a disability and provided with special education services via an IEP.<br><br>These activities include request for an evaluation, a multidisciplinary evaluation, eligibility determination, and the development of the IEP. Families of students who are being evaluated must be informed of all activities and have opportunities to participate in meetings and decisions about their child." | Center for Parent Information and Resources (2014); PACER Center (2006) |

| Terms | Definition | Resource |
|---|---|---|
| **Specially designed instruction** | "In practical terms, specially designed instruction (SDI) is instruction that is tailored to a particular student.<br><br>It addresses their Individualized Education Program (IEP) goals; accounts for their disability; provides modifications or adaptations to content; and encourages access to the general education curriculum." | Council for Exceptional Children (n.d.) |
| **Specialized instructional support personnel** | Personnel offer specialized skills (e.g., speech and language therapy, counseling) and provide vital support for students with disabilities across a variety of settings. | National Education Association (n.d.) |
| **Strategy instruction** | Instruction designed to teach students the elements or steps for implementing successful strategies. | Gaskins (2009) |
| **Summative assessment** | "a cumulative assessment that occurs at the end of an instructional unit." Examples may include exams, quizzes, and projects. | Alber-Morgan et al. (2022, p. 164) |
| **Targeted instruction** | Instruction that "takes into account what students understand and teaches them according to their ability levels, rather than strictly adhering to what they are expected to know based on their grade level." | Center for Education Innovations (n.d.) |
| **Transition services** | Instruction, related services, and community experiences designed to support the student with a disability in developing academic and functional skills suited to the student's postschool goals.<br>Per federal regulations, this is a results-oriented process that considers including postsecondary education, vocational education, integrated employment (including supported employment), continuing and adult education, adult services, independent living, or community participation, as appropriate for the individual student's needs and taking into consideration the child's strengths, preferences, and interests. | IDEA regulations, 34 C.F.R. § 300.43(a) |
| **Universal design for learning (UDL)** | "A framework that facilitates the use of flexible options when designing instruction to promote student engagement, present content to learners, and allow students to demonstrate their learning. This framework enables educators to address learner variability and promote learner agency." | The IRIS Center (2009, 2023, p. 1) |

# Glossary References

Alber-Morgan, S. R., Konrad, M., Hessler, T., Helton, M. R., & Telesman, A. O. (2022). Identify and prioritize long-and short-term goals. In J. McKleskey, L. Maheady, B. Billingsley, M. T. Brownell, & T. J. Lewis (Eds.), *High leverage practices for inclusive classrooms* (pp. 159-171). Routledge.

Alper, S., & Raharinirina, S. (2006). Assistive technology for individuals with disabilities:A review and synthesis of the literature. *Journal of Special Education Technology*, *21*, 47 -64.

The American Speech-Language-Hearing Association (ASHA; n.d.). *Auditory processing disorder*. https://www.asha.org/public/hearing/auditory-processing-disorder/

The American Speech-Language-Hearing Association (n.d.) *Augmentative and Alternative Communication* (AAC). Retrieved from https://www.asha.org/public/speech/disorders/aac/

Archer, A. L., & Hughes, C. A. (2011). *Explicit instruction: Effective and efficient teaching*. Guilford.

Behavioradvisor.com. (n.d.) *Functional behavioral assessment* (FBA). Retrieved from http://www.behavioradvisor.com/FBA.html

Bolton, G., (2010). *Reflective practice: Writing and professional development*. (3rd edition). Sage.

Biklen, D. & Burke, J. (2006). Presuming competence. *Equity & Excellence in Education*, *39*(2),1 66-175.

Butvilofsky, S. A., Hopewell, S., Escamilla, K., & Sparrow, W. (2017). Shifting deficit paradigms of Latino emerging bilingual students' literacy achievement: Documenting biliterate trajectories. *Journal of Latinos and Education, 16*(2), 85-97.

Center for Education Innovations. (n.d.) *Targeted instruction*. http://www.earlylearningtoolkit.org/content/targeted-instruction

Center for Parent Information and Resources. (2014). *Evaluating children for disability*. Author. http://www.parentcenterhub.org/repository/evaluation/

Center on Multitiered System of Supports (n.d.). *Essential components of MTSS*. https://mtss4success.org/essential-components

Center on Response to Intervention. (2014). *Response to intervention glossary of terms*. American Institutes for Research and National Center on Intensive Intervention. http://www.rti4success.org/sites/default/files/CenterOnRTIGlossary.pdf

Chick, N. (2017). *CFT teaching guide: Metacognition*. Vanderbilt University Center for Teaching. https://cft.vanderbilt.edu/guides-sub-pages/metacognition/

Collins, B. C. (2012). *Systematic instruction for students with moderate and severe disabilities*. Paul H. Brookes Publishing Company.

Cook, B. G., & Cook, L. (2016). Research designs and special education research: Different designs address different questions. *Learning Disabilities Research & Practice*, 31(4), 190-198.

Council for Exceptional Children (2022). *Core competencies for special education paraeducators*. https://exceptionalchildren.org/paraeducators/Core-competencies-special-education-paraeducators

Council for Exceptional Children (n.d.). *Specially designed instruction*. https://exceptionalchildren.org/topics/specially-designed-instruction#

Deshler, D. D., Schumaker, J. B., Bulgren, J. A., Lenz, B. K., Jantzen, J., Adams, G., Marquis, J. (2001). Making things easier: Connecting knowledge to things students already know. *TEACHING Exceptional Children*, *33*(4), 82–85. https://doi.org/10.1177/004005990103300412

EduTechWiki. (2007). *Instructional time*. http://edutechwiki.unige.ch/en/Instructional_time

Eissenberg, T. E., & Rudner, L. M. (1988). Explaining test results to parents. *Practical Assessment, Research & Evaluation*, *1*(1). http://PAREonline.net/getvn.asp?v=1&n=1

Friend, M., & Cook, L. (2017). *Interactions: Collaboration skills for school professionals* (8th ed.). Pearson.

Friend, M., Cook, L., Hurley-Chamberlain, D., & Shamberger, C. (2010). Co- teaching: An illustration of the complexity of collaboration in special education. *Journal of Educational and Psychological Consultation*, *20*, 9–27. doi:10.1080/10474410903535380

Gaskins, I. (2009). *Major approaches to strategies instruction*. Retrieved from http://www.education.com/reference/article/strategies-instruction/

Gay, G. (2018). *Culturally responsive teaching: Theory, research, and practice* (3rd ed.). Teachers College Press.

Gollnick, D. M. & Chinn, P. C. (2017). *Multicultural education in a pluralistic society* (10th ed.). Pearson.

Hosp, M. K, Hosp J. L., & Howell, K. W. (2016). *The ABCs of CBM: A practical guide to curriculum based measurement* (2nd Ed.) Guilford Press.

IDEA regulations, 34 C.F.R. § 300 (2012).

Inclusive Education Planning Tool (IEPT). (2011). *What is a learner profile?* (Action on Inclusion). Alberta, Canada: Parkland School Division. https://sites.google.com/a/fmcsd.ab.ca/inclusive-education-planning-tool-iept/learnerprofiles

Individuals With Disabilities Education Act, 20 U.S.C. §§ 1401 (1) et seq. (2006 & Supp.V. 2011)

Individuals With Disabilities Education Act regulations, 34 C.F.R. § 300.320– 300.324

The IRIS Center. (n.d.). *Benchmark*. In IRIS glossary. https://iris.peabody.vanderbilt.edu/resources/glossary/

The IRIS Center. (n.d.). *Cooperative learning*. In IRIS glossary. https://iris.peabody.vanderbilt.edu/resources/glossary/

The IRIS Center. (n.d.). *Curriculum-based measurement*. In IRIS glossary. https://iris.peabody.vanderbilt.edu/resources/glossary/

The IRIS Center. (2004a). *Accessing the general education curriculum: Inclusion considerations for students with disabilities*. https://iris.peabody.vanderbilt.edu/agc.

The IRIS Center. (2004b). *Effective school practices: Promoting collaboration and monitoring students' academic achievement* [Training module]. Peabody College, Vanderbilt University. http://iris.peabody.vanderbilt.edu/module/esp/

The IRIS Center. (n.d.). *Guided notes*. In IRIS glossary. https://iris.peabody.vanderbilt.edu/resources/glossary/

The IRIS Center. (n.d.). *Instructional technology*. In IRIS glossary. https://iris.peabody.vanderbilt.edu/resources/glossary/

The IRIS Center. (n.d.). *Mnemonics*. In IRIS glossary. https://iris.peabody.vanderbilt.edu/resources/glossary/

The IRIS Center. (n.d.). *Norm-referenced assessment*. In IRIS glossary. https://iris.peabody.vanderbilt.edu/resources/glossary/

The IRIS Center. (2005). *Providing instructional supports: Facilitating mastery of new skills* [Training module]. Peabody College, Vanderbilt University. http://iris.peabody.vanderbilt.edu/module/cnm/

The IRIS Center. (n.d.). *Self-regulation*. In IRIS glossary. https://iris.peabody.vanderbilt.edu/resources/glossary/

The IRIS Center. (2007). *Serving students with visual impairments: The importance of collaboration* [Training module]. Peabody College, Vanderbilt University. http://iris.peabody.vanderbilt.edu/module/v03-focusplay/

The IRIS Center. (2008). *SRSD: Using learning strategies to enhance student learning* [Training module]. Peabody College, Vanderbilt University. http://iris.peabody.vanderbilt.edu/module/srs/

The IRIS Center. (2010a). *Differentiated instruction: Maximizing the learning of all students* [Training module].Peabody College, Vanderbilt University. http://iris.peabody.vanderbilt.edu/module/di/

The IRIS Center. (2010b). *High-quality mathematics instruction: What teachers should know* [Training module]. Peabody College, Vanderbilt University. https://iris.peabody.vanderbilt.edu/module/math/

The IRIS Center. (2012). *Secondary reading instruction: Teaching vocabulary and comprehension in the content areas* [Training module]. Peabody College, Vanderbilt University. http://iris.peabody.vanderbilt.edu/module/sec-rdng/

The IRIS Center. (2015). *Intensive Intervention (Part 1): Using Data-Based Individualization To Intensify Instruction* [Training module]. Peabody College, Vanderbilt University. http://iris.peabody.vanderbilt.edu/module/dbi1/

The IRIS Center. (2009, 2023, pg. 1). *Universal design for learning: Designing learning experiences that engage and challenge all students*. https://iris.peabody.vanderbilt.edu/udl/

Israel, H., & Richter, R. R. (2017). A guide to understanding meta-analysis. *Journal of Orthopedic & Sports Physical Therapy, 41*, 496-504.

Kennedy, M. J., Cook, L., Cook, B., Brownell, M. T., & Holdheide, L. (2020). *Special video: Clarifying the relationship between HLPs and EBPs*. https://highleveragepractices.org/clarifying-relationship-between-hlps-and-ebps

Ladson-Billings, G. (1995). Toward a theory of culturally relevant pedagogy. *American Research Journal. 32*(3) 465-491. https://doi.org/10.3102/00028312032003465

Lee, D. L., & Axelrod, S. A. (2005). *Behavior modification: Basic principles* (3rd ed.). Austin, TX: PRO-ED.

Lewis, B. (2016a). *Heterogeneous groups.* http://k6educators.about.com/od/educationglossary/g/gheterogeneous.htm

Lewis, B. (2016b). *Homogeneous groups*. http://k6educators.about.com/od/educationglossary/g/ghomogeneous.htm

Loman, S., Strickland-Cohen, M. K., Borgmeier, C., & Horner, R. (2013). *Basic FBA to BSP trainer's manual*. University of Oregon, Eugene, OR. http://basicfba.gseweb.org/

Mastropieri, M. A., Scruggs. T.E. & Levin, J. R. (1985). Maximizing what exceptional children can learn: A review of research on the keyword method and related mnemonic techniques. *Remedial and Special Education, 6*, 39-45. Doi: 10.1177/074193258500600208

National Center on Intensive Intervention. (2013). *Data-based individualization: A framework for intensive intervention*. Office of Special Education, U.S. Department of Education. http://www.intensiveintervention.org/sites/default/files/DBI_Framework.pdf

National Education Association. (n.d.) *Specialized instructional dupport personnel*. https://www.nea.org/about-nea/our-members/specialized-instructional-support-personnel

National Joint Committee on Learning Disabilities. (2010). *Comprehensive assessment and evaluation of students with learning disabilities*. http://www.ldonline.org/article/54711/

PACER Center. (2006). *Understanding the special education process: An overview for parents* (Action Information Sheet). Author. http://www.pacer.org/publications/pdfs/ALL17.pdf

PACER Center. (2011). *What is the difference between an IFSP and an IEP*? (Action Information Sheet). Author. http://www. pacer.org/parent/php/PHP-c59.pdf

Paris, D. (2012). Culturally sustaining pedagogy: A needed change in stance, terminology, and practice. *Educational Researcher*, *41*(3), 93-97. https://doi.org/10.3102/0013189X12441244

Potterfield, J. (2009–2013). *ABA toolbox: Maintenance*. https://sites.google.com/site/thebcbas/aba-toolbox/maintenance

RTI Action Network. (n.d.). *Fidelity of implementation*. In RTI Action Network Glossary. http://www.rtinetwork.org/glossary?task=list &glossid=1&letter=F

RTI Action Network. (n.d.). *Flexible grouping*. In RTI Action Network Glossary. http://www.rtinetwork.org/glossary?task=list&glossid= 1&letter=F

Stockall, N., Dennis, L. R., & Reuter, J. A. (2014). Developing a progress monitoring portfolio for children in early childhood special education programs. *TEACHING Exceptional Children, 46*(3), 32–40. doi:10.1177/004005991404600304

Understood.org (n.d.) *Accommodations: What they are and how they work*. https://www.understood.org/en/articles/accommodations-what-they-are-and-how-they-work

Understood.org (n.d.) *What are academic modifications*. https://www.understood.org/en/articles/modifications-what-you-need-to-know

U.S. Department of Education. (2006, October 4). *IDEA regulations: Individualized education program (IEP)*. http://idea.ed.gov/explore/view/p/%2Croot%2Cdynamic%2CTopicalBrief%2C10%2C

**High-Leverage Practices (HLPs) are a deceptively simple concept in the field of education.  On the one hand, it is amazing to have a list of key practices that all teachers should learn and be able to implement when teaching students of all backgrounds and ability levels, including those with disabilities.  On the other, teaching is rarely simple, and there is critical nuance within the HLPs to understand and master along the path toward supporting positive academic, behavioral, and social outcomes for all students.**

In this revised text, the *High-Leverage Practices for Students with Disabilities (2nd Edition)* are revised and updated to reflect the challenges of modern classrooms.  A core addition is the interpretation and analysis of how the HLPs work together (as compared to individual, standalone practices), and alongside evidence-based practices to improve teacher practice and student outcomes.  Authors also introduce the terms pillar and embedded HLPs.  **Pillar practices** are six key HLPs that are most foundational for teaching and learning drawn from the reconfigured domains (*Collaboration, Data-Driven Planning, Instruction in Behavior and Academics,* and *Intensify and Intervene as Needed*).  **Embedded practices** are the remaining original 16 HLPs that are core to supporting the effectiveness of the pillars.  This text also introduces the term **culturally inclusive pedagogies and practices (CIPP)**, which are overlaid and considered alongside the pillar and embedded HLPs to better reflect the realities of modern teaching.  Finally, as compared to the original text, authors provide robust examples of HLP implementation spanning the various grade and age levels and highlight essential research backing the use of the various practices.

High-Leverage Practices for Students with Disabilities

highleveragepractices.org