Building a Knowledge Base to Inform Special Education Practice: Evidence-Based and High-Leverage Practices

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ABSTRACT

As the field celebrates the 50th anniversary of the Individuals with Disabilities Education Act (IDEA), it is worth recognizing the extraordinary progress made in building a knowledge base to support effective instruction for students with disabilities. This article traces the development of two of the field's most influential contributions: evidence-based practices (EBPs) and high-leverage practices (HLPs). We describe how special education evolved from a primary focus on establishing access and legal rights to identifying, validating, and disseminating instructional practices that improve student outcomes. EBPs provide research-validated interventions shown to be effective for specific learners and outcomes, while HLPs identify the foundational teaching practices essential across settings and contexts. Together, these complementary frameworks have strengthened teacher preparation, informed instructional decision making, and improved the quality of special education. We conclude by considering how continued refinement of EBPs and HLPs can further advance IDEA's promise of meaningful educational outcomes for all learners.

KEYWORDS

Evidence-based practices, high-leverage practices, instruction, special education

At the heart of special education is the provision of instruction that is both individualized and effective. The Individuals with Disabilities Education Act (IDEA, 2004) requires that every eligible student receive instruction that is both individualized (i.e., based on an Individualized Education Program or IEP) and reasonably calculated to enable the child to make meaningful progress in light of their specific circumstances (i.e., effective; see *Endrew F. v. Douglas County School Dist. RE-1*, 2017). A strict application of individualization might suggest that special educators should approach each student as a blank slate, with all types of instruction applied in an individual process of trial and error. However, this would be incredibly inefficient and ignore a substantial knowledge base regarding effective special education instruction. Although some level of individualization is needed to address the unique learning needs and goals of learners with disabilities, established knowledge bases on core and effective practices should be used as the foundation for special education instruction.

The purpose of this article is to explore two separate but related knowledge bases for informing instructional practice in special and teacher education: (a) evidence-based practices (EBPs), or discrete instructional practices validated by bodies of experimental research to improve one or more outcomes for a group of learners, and (b) high-leverage practices (HLPs), or core teaching behaviors identified by leaders in the field as fundamental to effective and individualized special education. EBPs and HLPs have distinct origins and purposes, yet they complement each other; the utility of each is increased when used in conjunction with the other. In this article, we briefly discuss historical eras of special education; provide historical perspectives and foundational milestones, major advances and practice-changing innovations, implications for research and practice, and forward-looking recommen-

dations to inspire the next 50 years for both EBPs and HLPs; and conclude with a brief discussion and example of how EBPs and HLPs can be used together to provide individualized and effective instruction in special education.

HISTORICAL PERSPECTIVE ON SPECIAL EDUCATION PRACTICE

To contextualize EBPs and HLPs, we briefly discuss key eras in special education as described by Collins and colleagues (2025). The pioneer era involved trailblazers in the field such as Jean Marc Gaspard Itard and Elizabeth Farrell developing and applying foundational special education practices for teaching children and youth with disabilities. In the United States, the advocacy era (approximately 1950s–1970s) saw parent groups and others stridently and successfully advocate for legislative protections for students with disabilities to receive specialized instruction, culminating in the passage of the Education for All Handicapped Children Act in 1975, now called IDEA.

In these early developmental eras of the field, though important research was conducted, the focus tended to be on developing new instructional practices and providing access to special education rather than developing knowledge bases to inform and refine instruction. This is reflected in the most highly cited article published in what is generally regarded as the flagship scholarly journal in special education, *Exceptional Children*, prior to 1975: "Special education for the mildly retarded—Is much of it justifiable?" (Dunn, 1968). In this powerful piece of advocacy typical of the era, Dunn warned about the ineffectiveness and stigma of separate special education, especially for students of color, advocating instead for placement in mainstream classes.

After the rights of students with disabilities to special education were established in law and policy (e.g., IDEA), the field progressed into an era of research-based practices in the 1980s and 1990s. During this time, scholars focused on researching the effectiveness of specific instructional practices with the aim of informing and improving instruction based on research evidence. In the United States, this era culminated in the specification that IEPs must include "a statement of the special education and related services and supplementary aids and services, *based on peer-reviewed research* to the extent practicable, to be provided to the child" (emphasis added) in the 2004 reauthorization of IDEA.

The most highly cited article published in *Exceptional Children* from 1980 to 2004, Deno's (1985) "Curriculum-based measurement: The emerging alternative," in which the author reviewed research supporting curriculum-based measurement, reflects this emphasis. Although Deno's review supported the effectiveness of the practice, at the time there were not established standards to evaluate the quality or quantity of research bases in special education in a standardized way or an established set of practices to situate curriculum-based measurement within the broader context of core special education practices. As discussed in the following section, the next and current era of special education is the EBP era (Collins et al., 2025), when EBPs and HLPs in special education were developed to address these gaps.

EVIDENCE-BASED AND HIGH-LEVERAGE PRACTICES

Knowledge bases of EBPs and HLPs are the two core developments of the current EBP era of special education. In this section, we review the historical perspective and foundational milestones, major advances and innovations, implications for research and practice, and forward-looking recommendations for EBPs and then HLPs.

Evidence-Based Practices: Identifying What Works

Historical Perspective and Foundational Milestones

In 2005, special education entered the EBP era with the publication of a special issue of *Exceptional Children* devoted to establishing indicators for high-quality research and presenting standards for EBPs based on high-quality experimental research studies (Odom et al., 2005). In education, the What Works Clearinghouse pioneered a systematic approach to evaluate research for the purpose of answering the question of "What works in education?" Special education scholars built on this work by developing rigorous, standardized rules to identify what works for students with disabilities based on research. The four most highly cited articles in *Exceptional Children* since 2005 are from that special issue, including articles that proffered standards for EBPs in special education (Gersten et al., 2005; Horner et al., 2005).

Using the standards developed by Gersten and colleagues (2005) and Horner and colleagues (2005), researchers began to conduct EBP reviews to systematically evaluate bodies of research studies examining the effectiveness of discrete instructional practices (i.e., practices with a defined list of steps to follow). Instructional practices supported by evidence bases that meet EBP standards are identified as EBPs (see Cook et al., 2020, for more on EBP reviews), signaling a meaningful level of research support for the effectiveness of the practice. Key elements of EBP reviews are examining research designs, quality of research, quantity of research, and magnitude of effects in the studies investigating the effects of an instruc-

tional practice.

Research Design. Different study designs (i.e., types of studies) answer different types of research questions (Cook & Cook, 2016). Experimental studies are designed specifically to establish cause-and-effect relationships, which refer to whether one variable causes change in another. Experimental research is, then, essential for answering causal questions, such as whether an intervention (e.g., repeated reading) causes improved outcomes (e.g., reading fluency) for a group of learners (e.g., elementary students with learning disabilities). Two types of experimental studies are common in special education: group experiments and single-case designs. In group experiments, some students are assigned (randomly in a type of experiment called a randomized controlled trial) to a treatment group and others to a control group. The changes in outcomes for the two groups are compared to estimate the effectiveness of the practice being investigated. In single-case designs, individuals typically serve as their own control conditions and researchers systematically introduce and withdraw the intervention and examine whether a functional relation exists between the intervention and the outcome being measured (see Maggin et al., 2018). For example, if a student's engagement is consistently high when the teacher uses behavior-specific praise, but consistently low when the teacher does not across multiple phases of a single-case design study, it can be concluded that behavior-specific praise caused improved engagement for that student.

The first step of an EBP review is, then, for researchers to identify all the experimental research conducted relevant to their research question. For example, if researchers wanted to examine whether repeated reading is an EBP for improving reading fluency for elementary students with learning disabilities, they would identify all the experimental studies examining that question for their review.

Study Quality. To minimize error and bias in studies, which can result in invalid findings, researchers adhere to standards of quality or rigor in the field. EBP standards stipulate sets of quality indicators, all or most of which must be adhered to in order for an experimental study to be included in an EBP review. For example, one quality indicator specified by Gersten and colleagues (2005) for group experimental studies is: "Were appropriate procedures used to increase the likelihood that relevant characteristics of participants in the sample were comparable across conditions?" (p. 152). This is important because if the treatment and control groups are not comparable, it is possible that any observed differences between the groups in outcome growth are due to pre-existing differences in the groups, not the intervention. An example of a quality indicator for single-case designs is: "The design provides at least three demonstrations of experimental effect at three different points in time" (Horner et al., 2005, p. 174). That is, one should not conclude that an intervention caused changed outcomes for a student if researchers intervene and observe a change in behavior once; that change could have been caused by many things other than the instructional practice being examined. But if student behavior changes in the predicted manner three times corresponding to three changes in the presence of the instructional practice, then one can validly infer a functional relation between the practice and change in outcomes for that participant. Excluding studies from EBP reviews that do not sufficiently address prescribed quality indicators reduces the likelihood that the EBP review is influenced by potentially misleading findings.

Quantity of Studies. Because no single study is perfect, replications of effects across multiple studies are needed to be confident in research findings. Accordingly, EBPs must be supported by multiple high-quality, experimental studies as effective. For example, Gersten and colleagues (2005) required that "at least four acceptable quality studies, or two high quality [group experimental] studies" (p. 162) support a practice for it to be classified as an EBP. Under these standards, acceptable studies meet most quality indicators, but fewer than what is required for high-quality designation by Gersten and colleagues' EBP standards. Horner and colleagues (2005) required that five single-case design studies (with a minimum of 20 participants, conducted by at least three different researchers across at least three different locations) support a practice for it to be identified as an EBP.

Magnitude of Effects. Finally, for an experimental study to show that a practice causes improved learner outcomes, it should show meaningful, as opposed to trivial, positive effects on the outcome. Gersten and colleagues (2005) addressed this issue by requiring that the weighted effect size across high- and acceptable-quality studies in the review be significantly greater than 0. Horner and colleagues (2005) required that the five single-case studies supporting an EBP demonstrate meaningfully positive effects by (a) establishing a functional relation between the practice and targeted outcome through visual analysis and (b) demonstrating change in learner outcomes that is considered socially important.

Major Advances and Practice-Changing Innovations

There are now multiple sets of standards for identifying EBPs in special education. In addition to the original standards developed by Gersten and colleagues (2005) and Horner and

TABLE 1: Recommended Resources for Evidence-Based Practices and High-Leverage Practices

RESOURCE	DESCRIPTION
Evidence-Based Practices	
What Works Clearinghouse https://ies.ed.gov/ncee/WWC/Search/Products?productType=2	What Works Clearinghouse Intervention Reports evaluate the effectiveness of instructional practices. Practices meeting the highest evidence standards are classified as having *positive effects*.
National Standards Project https://www.nationalautismcenter.org/wp-content/uploads/2015/04/NSP2.pdf	The National Autism Center's latest review evaluates research on instructional practices for learners with autism. Rather than using *evidence-based practice*, it designates the strongest-supported practices as *established*.
Evidence-Based Practices for Children, Youth, and Young Adults with Autism https://tinyurl.com/bd2ccdm4	The National Clearinghouse on Autism Evidence and Practice's review of research on the effectiveness of instructional practices for learners with autism.
National Technical Assistance Center on Transition https://transitionta.org/topics/effective-practices/	Search for evidence-based practices related to transition outcomes for secondary students and youth with disabilities as identified by the National Technical Assistance Center on Transition.
A Systematic Review of Targeted Evidence-Based Reviews https://doi.org/10.1177/07419325251388491	A review of 117 evidence-based reviews published in peer-reviewed journals, published in *Remedial and Special Education*.
How Evidence–Based Practices are Systematically Identified https://doi.org/10.1111/ldrp.12213	Published in *Learning Disabilities Research & Practice*, the authors provide a detailed and accessible discussion of EBPs, key issues related to EBPs, and the process for identifying evidence-based practices.
The IRIS Center's module on evidence-based practices https://iris.peabody.vanderbilt.edu/module/ebp_01/	This free, 3-part module provides descriptions, examples, interviews with experts, and assessments for selecting, implementing, and evaluating evidence-based practices.
High-Leverage Practices	
CEEDAR Center HLP Website https://ceedar.education.ufl.edu/high-leverage-practices-2/	This CEEDAR Center website provides the original and updated *High-Leverage Practices* texts, along with free resources for download and online use.
IRIS Center HLP Resources https://iris.peabody.vanderbilt.edu/resources/high-leverage-practices/	The IRIS Center is a longstanding resource containing modules and other content for professional learning.
Council for Exceptional Children's HLP Website www.highleveragepractices.org	This resource contains links to videos, leadership guides, and other content created by a range of researchers and practitioners in the field.
Library of HLP Videos https://vimeo.com/showcase/HLPVideos	This Vimeo collection, curated by Michael Kennedy, includes original and updated high-leverage practice videos and other free resources for teacher preparation and professional development.

colleagues (2005), Reichow and colleagues (2008) and the National Autism Center (2015) developed EBP standards specifically for learners with autism, and the Council for Exceptional Children (CEC) developed their own set of EBP standards for the field (Cook et al., 2015). See Cook and colleagues (2025) for an overview of these and other sets of EBP standards. Despite some differences in these standards, they all require that multiple, high-quality, experimental studies demonstrate meaningfully positive effects on a targeted outcome for a practice to be considered an EBP.

Perhaps the most significant advance in EBPs is the development of a large body of practices identified as EBPs in special education. EBP reviews have been conducted by organizations such as the What Works Clearinghouse

(n.d.), National Autism Center (2015), the National Clearinghouse on Autism Evidence and Practice (Steinbrenner et al., 2020), and the National Technical Assistance Center on Transition (n.d.) to identify EBPs for different groups of learners with disabilities. Researchers have also published numerous EBP reviews in peer-reviewed journals resulting in the identification of many more EBPs for a variety of learners and outcomes (see Cook et al., 2025, for a review of 117 EBP reviews). See Table 1 for links to these and other resources related to EBPs in special education. Collectively, these resources provide special educators with many practices supported as effective by robust research bases that can be prioritized to improve the outcomes of learners with disabilities.

Implications for Research and Practice

EBP standards spurred additional, high-quality, experimental research studies to be conducted. There were (and continue to be) many instructional practices that special educators generally consider as effective that are not supported as effective by a sufficient body of high-quality, experimental studies to be classified as EBPs. Researchers have addressed (and continue to address) this gap by conducting additional, high-quality experimental studies. Delineating quality indicators for experimental research as part of EBP standards has also positively affected the quality of research conducted in the field. Special education researchers now have clear guidance of what is expected of rigorous experimental research and the quality of experimental studies has increased accordingly.

The primary purpose of EBPs is to inform and improve instructional practice. Implementing EBPs with learners with disabilities is critical, as they are supported by robust research evidence as being effective and are highly likely to result in improving student outcomes. Moreover, it is important that special educators avoid the ineffective fads and pseudoscience (i.e., practices presented as if they were supported as effective by scientific research but actually are not; see Travers & Ayres, 2016) that are sometimes promoted. Although fads and pseudoscientific practices—such as facilitated communication (see Ganz et al., 2018), learning styles (Cleary & Robinson, 2025), and Brain Gym (Ruhaak & Cook, 2016)—may seem appealing, research shows they are ineffective. They represent a significant opportunity lost because the time spent implementing them would likely have resulted in improved student outcomes had an EBP been implemented instead. A logical first step in bridging the longstanding gap between research and practice in special education (see Cook & Farley, 2019) is to identify instructional practices that are, in fact, effective for different groups of learners (EBPs) as well as which practices are not; and prioritize use of the former and avoidance of the latter.

> EBPs will not address the needs and goals of every learner, and any instructional practice—including EBPs—can be implemented ineffectively. In other words, special educators cannot rely just on EBPs; high-quality special education is much more than implementing a series of EBPs.

Previous to the development and application of EBP standards, claims could be made that an instructional practice was supported as effective based on research even if that research was flimsy. For example, a single published survey study showing a small group of special educators rated a practice as effective is research, but that does not mean the practice is truly effective (i.e., the teachers could be mistaken about the effects of the practices, one study is insufficient to make claims about the general effects of a practice). Indeed, in the absence of clear standards about what type and how much research evidence is needed to identify a practice as an EBP, many ineffective practices could be claimed to be supported by some research. EBPs, then, have enabled the field to systematically evaluate bodies of research on discrete instructional practices in ways that facilitate practical decisions. Simply put, special educators can access hundreds of EBP reviews that reliably indicate whether practices are EBPs to inform their instructional decisions (e.g., prioritize the application of EBPs when they align with the goals and characteristics of their learners).

Forward-Looking Recommendations: The Next 50 Years

EBP standards and reviews are often full of technical research concepts designed to support methodological replication rather than classroom application. To optimize their utility for everyday practice and teacher preparation, we encourage developers of EBP-related products to create non-technical guides that provide actionable, step-by-step implementation procedures for pre- and in-service educators. The AFIRM Modules (Frank Porter Graham Child Development Institute, n.d.) are an excellent example of making the results of EBP reviews accessible and usable.

The field appears to be evolving from a broad focus on what works for popula-

tions of learners to what works for whom (which specific sub-groups of learners), for which outcomes, and under which conditions (e.g., Cox et al., 2024). EBPs with this more granular level of specificity may more closely align with the interests of special educators, who tend to be concerned with whether a practice works for their students in their classrooms, not about whether a practice tends to work for broad populations of learners. Of course, such a focus will require expanded research bases with multiple, high-quality experimental studies conducted for specific sub-groups of learners, different outcomes, and under different conditions.

We anticipate that EBP standards will become more nuanced. Many sets of EBP standards use dichotomous evaluations of studies (i.e., high quality or not high quality) and dichotomous EBP classifications (i.e., practices are classified as either an EBP or not an EBP). Although such approaches result in straightforward recommendations, which is the primary rationale for EBPs, they do not reflect the nuanced reality of research evidence. Treating studies simply as high quality or not and research bases as meeting EBP standards or not loses that nuance. For example, special educators would likely consider a practice supported as effective by multiple studies that just missed meeting a sufficient number of quality indicators quite differently than a practice that has been shown to be ineffective by multiple high-quality studies; yet both are classified as not being EBPs. Future EBP standards may incorporate rating scales or descriptions of strengths and weaknesses of research bases in addition to EBP classifications.

Finally, we suspect the role of EBPs will become more circumscribed. EBPs are helpful tools that can inform instructional decisions, but they are just one consideration; they address a narrow question regarding the research evidence supporting discrete instructional practices. EBPs will not address the needs and goals of every learner, and any instructional practice—including EBPs—can be implemented ineffectively. In other words, special educators cannot rely just on EBPs; high-quality special education is much more than implementing a series of EBPs. Indeed, many elements of educators' jobs related to supporting students with disabilities are not easily measured using experimental research studies considered in EBP reviews. A prime example of this is collaboration with colleagues and families, where it would not be ethical or practical to randomly assign educators to collaborate with some families but not others.

As discussed in the following section, the knowledge base around HLPs in special education complements EBPs to provide more holistic guidance for high-quality special education and informs the implementation of EBPs. EBPs alone, however, did not close the research-to-practice gap or resolve the difficulty practitioners face in accessing and applying a growing number of discrete interventions classified as EBPs. Researchers and teacher preparation leaders responded by developing HLPs—a foundational knowledge base of broader instructional approaches that cut across individual interventions such as EBPs.

High-Leverage Practices: A Field in Motion

Historical Perspective and Foundational Milestones

Over the past two decades, teacher education has shifted in important ways toward a clear focus on what teachers actually do in classrooms (Brownell et al., 2019). Earlier approaches often emphasized theory, broad instructional models, or lists of strategies that were difficult for novices to access, organize, or apply. The question of which practices are so central that every teacher should be able to use them effectively from the beginning of their career is essential for researchers, teacher educators, and other stakeholders to address (Windschitl et al., 2019). This line of inquiry led to the development of HLPs (Leko et al., 2015). This movement in part was intended to address the aforementioned issues practitioners have with accessing and applying the volumes of EBPs spanning the grade levels and content areas.

HLPs were identified as those practices that occur frequently in teaching, apply across content areas and grade levels, and are strongly connected to student learning (Ball & Forzani, 2011; Grossman et al., 2009). The goal was not to simplify teaching, but to make its complexity more manageable by identifying a core set of practices that could be taught, practiced, and improved over time (McLeskey et al., 2017). Since first entering the lexicon of educators about a decade ago, HLPs have had a positive and lasting impact on the field, but also raised important questions regarding their role in teaching and relationship to EBPs (Nelson et al., 2022).

Early efforts in general education, including work associated with TeachingWorks (www.teachingworks.org), helped define HLPs as the central actions of teaching (Windschitl et al., 2012). These included practices such as leading discussions, explaining content clearly, and interpreting student thinking. A key milestone in this work was the recognition that teacher preparation should focus not only on what teachers know, but also on what they can do in real instructional settings (Cohen, 2015). The TeachingWorks HLPs do not include many practices considered core to the work of educators who work with students with disabilities (e.g., running effective meetings, collaborating with families, intensifying instruction and behavioral supports when needed), which

led leaders at the CEC and the CEEDAR Center to develop their own set (Aceves & Kennedy, 2024).

Leaders in special education saw the potential of this approach but also recognized that additional considerations were needed relative to the set of practices identified by Teaching Works (McLeskey et al., 2017). Teaching students with disabilities involves similar core practices, but these practices often require intentional adaptation, collaboration, and use of data. In response, the CEC and the CEEDAR Center convened a group of researchers, teacher educators, and practitioners to identify HLPs specific to supporting students with disabilities.

This effort resulted in the 2017 publication of a set of 22 HLPs for students with disabilities organized into four domains (McLeskey et al., 2017). This was a significant milestone because it provided the field with a shared and practical framework that connected research, preparation, and classroom practice. It also reflected a growing consensus that improving outcomes for students with disabilities depends in part on strengthening the day-to-day instructional behaviors of educators.

Major Advances and Practice-Changing Innovations

Since their introduction, HLPs have influenced how educators think about teaching and how teacher preparation programs are designed (Aceves & Kennedy, 2024). One of the most important developments has been the emergence of a shared language for discussing teaching practice. Instead of relying on general descriptions of effective teaching, educators can now refer to specific teaching practices and behaviors such as using explicit instruction (HLP 16), collaborating with professionals (HLP 1), or using data to guide instructional decisions (HLP 6). This clarity has made it easier to align coursework, field experiences, and professional development (Brownell et al., 2019). Because many HLPs are also recognized as EBPs (e.g., explicit instruction, make data-driven decisions, use functional behavioral assessments), this movement has helped elevate the conversation and awareness around both.

Another important advance has been the movement toward practice-based teacher education (Billingsley et al., 2019). Teacher candidates are now more frequently engaged in opportunities to practice core instructional behaviors in structured settings. These opportunities include rehearsals, simulations, and guided practice in classrooms. This approach helps candidates develop confidence and competence by allowing them to focus on core aspects of teaching (i.e., HLPs) while receiving targeted feedback.

HLPs have also strengthened the connection between research and classroom practice (Riccomini et al., 2017). Rather than asking teachers to navigate a wide range of isolated strategies, HLPs provide a foundation that supports the use of many EBPs. For example, explicit instruction and scaffolding are not tied to a single program or subject area. They are flexible practices that teachers can apply across a variety of contexts and learners.

Another important development has been the recognition that HLPs are relevant for all educators (Aceves & Kennedy, 2024). Although they were developed within general and special education contexts, they are increasingly understood as essential for teaching in inclusive classrooms. Because most students with disabilities spend a significant portion of their time in general education settings, all teachers benefit from learning and using these practices (Sayeski, 2018).

Recent work (see Aceves & Kennedy, 2024) has focused on refining and strengthening the HLP framework. Updates have emphasized the importance of prioritizing certain core behaviors, clarifying how HLPs work together, and making culturally inclusive approaches more visible. These refinements have made the practices more accessible for teacher candidates who are learning to manage the many demands of teaching.

Implications for Research and Practice

The development and use of HLPs have important implications for both teacher preparation and classroom instruction. For teacher candidates, HLPs provide a clear and manageable starting point. Instead of trying to learn a large number of disconnected strategies, candidates can focus on developing a smaller set of core behaviors that are widely applicable and meaningful. This focus supports deeper learning and helps candidates build confidence as they enter the profession.

For teacher preparation programs, HLPs offer a way to design more coherent experiences. Coursework and field experiences can be aligned around the same set of practices, allowing candidates to encounter, practice, and refine those practices in multiple contexts. This alignment helps bridge the gap between university-based learning and classroom practice. Universities can also create observation tools that are aligned to HLPs (see VanUitert & Holdheide, n.d.).

In school settings, HLPs support more focused and collaborative professional learning. When teachers, coaches, and administrators share an understanding of core teaching behaviors, it becomes easier to provide feedback, support one another, and work toward common goals. This shared focus can strengthen partnerships between schools and preparation programs, creating a more consistent experience for

TABLE 2: Comparing and Contrasting Key Features of Evidence-Based and High-Leverage Practices

Feature	Evidence-Based Practices	High-Leverage Practices
Purpose	To improve student outcomes by providing guidance on how to teach	
Target Audiences	Practitioners, teacher educators, and researchers	
Target Practices	Discrete instructional interventions	Foundational, overarching teaching behaviors
Target Outcomes	Specific learner outcomes (e.g., reading fluency)	Broad learning outcomes (e.g., student learning)
Identification Method	Applying standards to bodies of experimental research on a practice	Professional consensus based on practice and research

new teachers. Numerous professional development materials supporting the HLPs have been developed by the CEEDAR Center, CEC, and the IRIS Center (see Table 1 for links to these and other resources).

From a research perspective, HLPs provide a useful framework for studying teaching practice. Researchers can examine how specific HLPs are learned, how they are implemented in classrooms, and how they relate to student outcomes. This work can continue to inform both preparation and professional learning.

Forward-Looking Recommendations: The Next 50 Years

Looking ahead, the continued impact of HLPs will depend on how the field builds on the progress that has already been made. One important direction is maintaining a clear focus on a manageable set of practices. As new initiatives and priorities emerge in education, it will be important to preserve the clarity and usability that have made HLPs effective.

Another important direction is continuing to strengthen the integration of culturally inclusive and responsive practices. Teaching is always shaped by the identities, experiences, and communities of students. HLPs are most effective when they are used in ways that recognize and build on these factors.

Advances in technology also offer new opportunities to support the learning and use of HLPs. Tools such as video analysis, simulation, and artificial intelligence can provide additional opportunities for practice and feedback. When used thoughtfully, these tools can help make high-quality preparation and professional learning more widely available.

Ongoing collaboration between researchers, teacher educators, and practitioners will also be essential. HLPs were developed through this kind of collaboration, and their continued refinement will depend on maintaining strong connections between research and practice.

Most importantly, HLPs should continue to support teachers in developing a sense of competence and purpose in their work. Teaching is complex, and no framework can eliminate that complexity. What HLPs offer is a way to navigate it. They provide a foundation that helps teachers focus their efforts, build their skills, and support the learning of all students.

Evidence-Based Practices and High-Leverage Practices: Promising Partners

EBPs and HLPs are two influential knowledge bases used to inform and improve instructional practice in special education in distinct but complementary ways. As McCray and colleagues (2017) noted, EBPs and HLPs are a promising pair. As summarized in Table 2, EBPs and HLPs have some core similarities (e.g., the ultimate purpose of both is to improve student outcomes by informing teacher practice and preparation). Yet they differ in critical ways along multiple dimensions; for example, EBPs focus on discrete instructional practices with defined implementation steps to improve specific outcomes (e.g., reading fluency), whereas HLPs focus on broad teaching behaviors to improve learning outcomes across domains.

One potentially confusing point is that EBPs and HLPs are both types of practices. Although "practice" is common in both terms, EBPs and HLPs denote different types of practices: as described previously, EBPs are discrete instructional practices and HLPs are broad teaching behaviors used across settings that typically do not follow a prescribed set of steps (e.g., teachers shouldn't follow a script or set of steps

to effectively collaborate with families, HLP 3). However, some practices are both an EBP and an HLP. or example, Steinbrenner and colleagues (2020) identified functional behavioral assessment (FBA) as an EBP for learners with autism, and conducting FBAs to develop individual student behavior support plans is HLP 10. This is because FBA is both a discrete practice with codified steps supported as effective by multiple high-quality experimental studies, and thus an EBP, as well as a core practice special educators use across settings to understand and address student behavior, and is thus an HLP.

Though HLPs and EBPs each play important roles on their own, neither provides a complete prescription for effective teaching and teacher preparation in special education. For example, HLPs provide a robust guide for teaching students with disabilities. They indicate key outcome areas to target (e.g., behavioral, academic, social; HLPs 9 and 20), provide general principles to guide teaching across domains (e.g., adapt for specific learning goals, HLP 13; use explicit instruction, HLP 16; provide scaffolding and use flexible grouping, HLPs 15 and 17; promote student engagement, HLP 18; adjust instruction based on student assessments, HLP 6), and indicate with whom special educators should collaborate (e.g., families and other professionals, HLPs 1 and 3). Although these are sound guiding principles, they do not provide discrete practices with step-by-step procedures to effectively teach students with disabilities specific skills. This is where EBPs come in.

EBPs are discrete practices that have been validated by robust bodies of experimental research as generally improving targeted outcomes for different groups of learners. But as Cook et al. (2012) noted, EBPs need to be implemented in the context of effective teaching. Just as following a recipe does not guarantee a perfect dish, following the prescribed implementation steps of an EBP does not necessarily result in effective learning. And this is where HLPs come back in; special educators use HLPs to provide a broader framework of effective teaching that facilitates the effective implementation of EBPs. For example, EBPs need to be implemented with adequate intensity (HLP 20); delivered in a consistent, organized, and respectful learning environment (HLP 7); and adjusted based on student assessment data (HLP 6).

To illustrate how HLPs and EBPs can work together to inform special education instruction, we provide a hypothetical example of Ms. Smith, a first-year special education teacher at an elementary school whose class is primarily composed of students with autism. Ms. Smith's teacher preparation program emphasized HLPs, and she uses them to guide her teaching. For example, she infuses instruction in social behavior throughout the day (HLP 9), uses explicit instruction across domains (HLP 16), and frequently provides scaffolded supports (HLP 15). However, her formative assessments indicate that her students' social behavior is not improving adequately, and she decides she wants to implement an EBP to improve her students' social outcomes.

She examines the EBPs identified for learners with autism by the National Clearinghouse on Autism Evidence and Practice (Steinbrenner et al., 2020). She sees that Peer-Based Instruction and Intervention (PBII) is an EBP with evidence supporting positive effects specifically for the social outcomes for elementary students with autism. After reading about PBII, she is encouraged that it aligns well with the HLPs (e.g., involves explicit instruction for peers and as needed, for students with autism; is intensive [daily]; involves collecting data on learner progress and providing feedback) and decides to implement it. She downloads the tools and resources available from the AFIRM module on PBII (Autism Focused Intervention Resources & Modules, n.d.), which includes a step-by-step practice guide, an implementation checklist, and a tip sheet for professionals. In addition to following the specific implementation steps provided, she continues to apply the HLPs while implementing PBII (e.g., promoting generalization by conducting PBII sessions in different locations, adapting PBII by providing visual supports such as timers showing how much "friend time" is left in the session). By integrating HLPs and EBPs, Ms. Smith begins to see social behaviors improve in most of her students and is hard at work on further adaptations with her non-responders.

CONCLUSION

Special education has transitioned from (a) developing new instructional approaches and providing legal access to services to (b) informing instructional practice with knowledge bases that rest on the foundation of decades of research and practice. The synergy between EBPs and HLPs helps enable special educators to address the mandate of IDEA to effectively apply scientifically validated supports and instruction. EBPs provide the "what" side of the instructional coin in special education—the discrete, research-validated interventions for improving targeted outcomes for specific learners, whereas HLPs offer the "how" side of the coin—the foundational teaching behaviors essential for effective special education across learners, settings, and outcomes.

The hypothetical case of Ms. Smith demonstrates how EBPs and HLPs are complementary tools, each made more complete and robust when used in conjunction with the other. Grounded in research- and practice-based evidence, EBPs and HLPs reflect and drive

high-quality instruction and improved learner outcomes. Looking ahead, the next 50 years in special education will be well positioned for success if these knowledge bases continue to evolve, expand, and be refined in ways that meet future challenges and changes in the field. Ultimately, anchoring teacher preparation and classroom practice in these complementary frameworks will contribute to the continuing growth and effectiveness of special education instruction.

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