





Special education teachers, as a significant segment of the teaching profession, came into their own with the passage of Public Law 94-142, the Education for All Handicapped Children Act, in 1975. Since then, although the number of special education teachers has grown substantially it has not kept pace with the demand for their services and expertise. The roles and practice of special education teachers have continuously evolved as the complexity of struggling learners unfolded, along with the quest for how best to serve and improve outcomes for this diverse group of students.

As this complexity was addressed, those preparing special education teachers found themselves responding to conflicting external forces. New content was added to preparation programs to meet requirements professional accreditation groups, changing state licensure requirements, and federal regulations related to teacher preparation. These programs also needed to respond to the long-term shortage of special education teachers, with intensive and rapid preparation of "highly qualified" teachersalthough there was no clear guidance as to the most effective practices to target. Without clarity regarding the practices and expertise that define an effective special educator, this role began to be viewed by potential teachers as less desirable than other teaching assignments despite the clear need and job assurance.

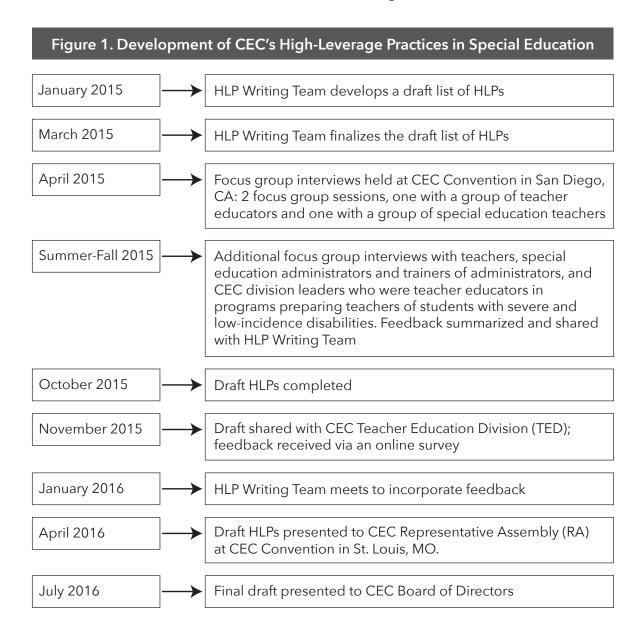
Meanwhile, research continued to establish evidence regarding practices that could make a positive difference with students who were struggling to find success in school because of learning and behavioral complexities. What was needed was guidance as to the most important of these practices that special educators needed to learn to use in classrooms—clear signals among the noise of demands placed on teacher education programs.

# **Development of the High-Leverage Practices in Special Education**

In fall 2014, the Board of Directors of Council for Exceptional Children (CEC) approved a proposal from the CEC Professional Standards and Practice Committee (PSPC) to develop a set of high-leverage practices (HLPs) for special education teachers. The PSPC, the Teacher Education Division (TED) of CEC, and the CEEDAR Center at the University of Florida endorsed this project. The CEEDAR Center, which is funded by the U.S. Department of Education's Office of Special Education Programs, provided a sub-award to CEC to support this work. The HLP Writing Team's members included representatives from CEC's PSPC, TED, the CEEDAR Center, the Council of Chief State School Officers, and CEC staff. In addition, seven CEC members were selected from over



50 nominations that were received from the PSPC, TED, and the CEEDAR Center. This team of practitioners, scholars, researchers, teacher preparation faculty, and advocates knew that to achieve the project's intended purposes, they needed to ensure that the results of their work established the need to improve teacher preparation programs, provided a rationale both for developing practice-based teacher preparation programs and for the HLPs themselves, and explained how the HLPs could be used to support student learning.





The fundamental purpose of CEC's HLP project was to identify improved methods for supporting special education teacher candidates as they learn to use effective practices in their classrooms. Although effective teaching practices had previously been identified, these mainly comprised undifferentiated, overall lists with brief descriptions of each practice (e.g., teachingworks.org).

Figure 1 describes the development of the HLPs. The HLP Writing Team spent considerable time determining the group of special educators to whom the HLPs would apply. It was the perspective of the HLP Writing Team that a high-quality set of HLPs could be developed that directly applied to the classroom practices of teachers in K-12 settings, although a separate set of HLPs could be developed to more specifically address the particular practices used by teachers of students with gifts and talents. CEC's Division for Early Childhood has developed DEC Recommended Practices (2015), which provides guidance to practitioners and families about the most effective ways to improve the learning outcomes and development of young children, birth through age 5, who have or are at risk for developmental delays or disabilities.

The HLPs are organized around four aspects of practice-collaboration, assessment, social/emotional/behavioral practices, and instruction-because special education teachers enact practices in these areas in integrated and reciprocal ways. For example, special education teachers use assessment to design instruction and then evaluate it.

The HLPs for instruction can be used to teach both academic content and emotional, behavioral, and social skills; special education teachers bring their knowledge of HLPs in these areas to collaboration with other professionals and parents.

The integrated and recursive use of HLPs in these four areas results in some overlap at times; for example, to learn to use the collaboration HLPs in practice requires teachers to have a deep know ledge of practices related to each of the other three areas. Similarly, using assessment data to make instructional decisions is a critical component of both effective instruction and effective assessment. Providing effective feedback in both the social/emotional/behavioral practices HLPs and the instruction HLPs; two research syntheses were developed as the basis for this item. Organizing the HLPs in this way was intended to make them more comprehensible and easier to use in planning core components of a practicebased teacher preparation program.

It should be noted that CEC's HLPs, and their incorporation of culturally responsive approaches, might also be considered effective practice for general education teachers. However, the manner in which these practices are enacted by special educators differs from how they are enacted by general education teachers. For example, general education teachers are expected to use different types of assessment information (e.g., performance on state assessments, work samples, informal conversations with students, observations) to improve



their understanding of students in their classrooms. The extent to which special education teachers are expected to collect assessment information and develop a learner profile is different. Special education teachers are expected to:

- collect detailed information about students,
- develop detailed processes for tracking the progress students are making,
- ensure that students' families' and general education teachers' understandings are incorporated in the collection of information and its use in designing instruction, and
- be thorough in the use of assessment data to design and evaluate instruction tailored carefully to students' needs.

Effective instruction by special education teachers requires a deep and comprehensive understanding of students with disabilities that allows them to develop highly responsive, explicit, systematic instructional and behavioral interventions that support the success of these students and responds to their diverse and complex needs.

The publication High-Leverage Practices in Special Education only scratches the surface in addressing the many issues that will arise in enacting this new vision of teacher preparation. Indeed, it is hoped that the HLPs are perceived as a working and evolving set of practices that can be used as teacher educators collectively develop an understanding of core practices, determine how such practices may be best used, and identify how they can be improved.

The HLPs are intended to provide those who work in school districts in beginning teacher induction and residency programs, or who provide professional development for teachers of students with disabilities, with a clear vision of effective teaching for these students. Administrators and principals who provide professional development for special education teachers-and, arguably, for all teachers who teach students with disabilities-can use these HLPs to select experiences where evidence shows that skillfulness in using practices makes a difference for student success. The HLPs provide families with clarity about effective practices that can improve educational outcomes for their children. Policy makers may use this guidance to focus their efforts on the most important practices as they consider teacher licensure requirements, micro-credentialing opportunities, or guidelines for approving teacher preparation programs. And, ultimately-from a prospective teacher's perspective-this is a playbook that describes the foundational practices needed for an effective and successful career creating success stories for our nation's students with the most complex learning and behavioral needs.

# **Acknowledgments**

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#### References

CEC Division for Early Childhood. (2015). DEC recommended practices: Enhancing services for young children with disabilities and their families. Arlington, VA: Author.

Skillful teaching requires appropriately using and integrating specific moves and activities in particular cases and contexts, based on knowledge and understanding of one's pupils and on the application of professional judgment.

(Ball & Forzani, 2009, p. 497)

oncerns about achievement levels →of students who struggle in school, including those with disabilities, have led to major changes in U.S. education policy. These changes have included increased expectations and accountability for student achievement and calls for improving the practice of teachers (e.g., the Every Student Succeeds Act of 2015 and its predecessor, the No Child Left Behind Act of 2001; NCATE, 2010; U.S. Department of Education, 2010). Improving teacher practice has become a major focus of policy makers and teacher educators for several reasons, including research revealing that (a) improving the effectiveness of teachers is the most direct approach to improving low-achieving outcomes for students (Hanushek & Rivkin, 2010; Master, Loeb, & Wyckoff, 2014), and that (b) many effective practices that can substantially improve student achievement are not routinely used by teachers (Cook & Odom, 2013).

The need to improve teacher practice has led several prominent teacher educators (e.g., Ball & Forzani, 2011; Grossman, Hammerness, & McDonald, 2009; Leko, Brownell, Sindelar, & Kiely, 2015; McDonald, Kazemi, & Kavanaugh, 2013) to take the

position that teacher education should focus more deliberately on instructional practice, and that teacher preparation programs should be developed that address this goal. In these programs, teacher education would be centered on a set of effective practices that all teachers need to learn (i.e., practices that are used frequently in classrooms and have been shown to improve student outcomes). Programs also would embed much of teacher preparation in clinical settings to systematically support teacher candidates in learning to use these HLPs (Grossman et al., 2009; NCATE, 2010). This emphasis on using practice-based teacher education to improve instructional practice has emerged in both general and special education (Leko et al., 2015; McDonald et al., 2013).

## Effective Special Education Teachers

Learning to teach is complex and demanding work. Although all beginning teachers are challenged to teach in ways that are responsive to students' needs, special education teachers face the challenge of teaching students with some of the most complex learning and behavioral difficulties. These



students have some combination of attention, memory, reasoning, communication, physical, and behavioral difficulties that can interfere with their ability to acquire the literacy, numeracy, independent living, and social skills needed to be successful in schools, postsecondary education, and work environments (Klingner et al., 2016). Moreover, students with disabilities have diverse needs that may include one or a combination of academic difficulties or emotional and behavioral challenges in schools. The severity of these challenges varies substantially. For example, whereas some students with dis-

abilities have complex and pervasive physical and cognitive disabilities and may require extensive support through-out much of the school day, other students struggle with a specific content area, require much more focused support, and may have gradelevel or advanced skills in other content areas. Further, a disproportionate

number of students with disabilities are from high-poverty settings or from culturally and linguistically diverse backgrounds (Klingner et al., 2016).

Many students with disabilities have failed to make sufficient progress in the general education classroom. Although general education teachers must be responsive to the needs of students with disabilities, effective instruction by special education teachers requires a deeper and more comprehensive understanding of students that facilitates

the development of highly responsive, explicit, systematic instructional and behavioral interventions that support the success of these students. To ensure quality outcomes for students with disabilities, special education teachers should provide instruction that is evidence-based and highly responsive to these students' complex and varied needs. Special education teachers must be flexible problem solvers who not only have expertise in using highly effective practices, but also are proficient in monitoring the effectiveness of these practices with individual students and making decisions regarding

changes in practice as needed. This routine analysis of practice and its effect on important student outcomes is foundational for effective special education teachers. Further, given the disproportionate number of students with disabilities from culturally and linguistically diverse backgrounds, special education teachers must have

expertise in delivering instruction and behavioral interventions in a culturally responsive manner (Aronson & Laughter, 2016).

Given the complexity of this work, preparing special education teachers who are ready to use effective practices as soon as they begin teaching is a daunting task. Beginning special education teachers require coherent and repeated opportunities to both apply their knowledge in realistic settings and receive feedback regarding their practice (Leko et al., 2015). Such deliberate

Special education teachers must be flexible problem solvers who not only have expertise in using highly effective practices, but also are proficient in monitoring the effectiveness of these practices with individual students and making decisions regarding changes in practice as needed.



practice in authentic contexts is essential to the development of effective performance and skilled decision making in many professions (e.g., nursing, plumbing, the military), and teaching students with disabilities is no different. To engage in this type of practice-based teacher education, teacher educators need to identify a limited number of critical practices that all special educators can use in classrooms, and those practices should become the core curriculum of teacher preparation programs.

# High-Leverage Practices and Practice-Based Teacher Education

Aspiring special education teachers need opportunities to learn those practices that are essential to promoting improved outcomes for students with disabilities if they

are to be prepared to use these practices when they enter classrooms. Teacher candidates can only learn so much during their preparation programs, particularly if the goal is to develop fluency in employing complex practices that are responsive to the needs of students with dis-

abilities. Given these limitations, they should learn to enact the most essential dimensions of effective practice, and they need focused learning opportunities where they can repeatedly practice these essential dimensions with close supervision and feedback to do this.

Ball and colleagues (Ball & Forzani, 2011; Grossman et al., 2009; McDonald et al., 2013) have referred to these essential dimensions of instruction as high-leverage practices (HLPs). In short, these are practices that can be used to leverage student learning across different content areas, grade levels, and student abilities and disabilities. For instance, HLPs might be used to teach evidence-based practices (e.g., using explicit instruction to teach and practice a summarization strategy) at differing intensity levels and across tiers of instruction. HLPs also might be the fundamental skills needed to collaborate effectively with other educators and families.

The criteria that were used to select CEC's HLPs for K-12 special education teachers are included in Table 1 (cf. Ball, Sleep, Boerst, & Bass, 2009; Grossman et al., 2009; Mc-

Donald et al., 2013; Windschitl, Thompson, Braaten, & Stroupe, 2012). In short, these practices must represent the essence of effective practice in special education. Further, from the perspective of teacher preparation programs, these should be practices that novices can learn, and

which can be taught to a reasonable level of proficiency during the course of a teacher preparation program.

The HLPs can become the foundation of a cohesive, practice-based teacher education curriculum that incorporates repeated, scaffolded, effective opportunities

Professionals learn best when they have repeated opportunities to practice the essential components of effective performance, receive feedback on their performance, and receive support in analyzing and improving their performance.



Table 1. Criteria for Identifying CEC's High-Leverage Practices	
Applicable and important to the everyday work of teachers	<ul> <li>Focus directly on instructional practice</li> <li>Occur with high frequency in teaching</li> <li>Research-based and known to foster important kinds of student engagement and learning</li> <li>Broadly applicable and usable in any content area or approach to teaching</li> <li>So important that skillfully executing them is fundamental to effective teaching</li> </ul>
Applicable and important to teacher education	<ul> <li>Limited in number (about 20) for a teacher education program</li> <li>Can be articulated and taught</li> <li>Novices can begin to master</li> <li>Can be practiced across university and field-based settings</li> <li>Grain size (i.e., how detailed should the practice be) is small enough to be clearly visible in practice, but large enough to preserve the integrity and complexity of teaching</li> <li>System (or group of HLP) considerations         <ul> <li>embody a broader theory regarding the relationship between teaching and learning than would individual practices</li> <li>support more comprehensive student learning goals (the whole is more than the sum of its parts)</li> </ul> </li> </ul>

for special education teacher candidates to practice (Leko et al., 2015). Currently, many special education teacher education programs, like their general education counterparts, cover a broad range of topics rather than a focused set of practices that aspiring teachers are taught to use effectively (Goe, 2006; McLeskey & Brownell, 2015). Further, most of the learning in teacher education

programs occurs in coursework, and is largely divorced from practice in Pre-K-12 schools. The primary practice opportunities teacher candidates currently have occur once they are in field placements in schools. Too often, teacher educators have insufficient influence over the quality of those opportunities, and the types of skills teacher candidates learn in them (Grossman & McDonald, 2008;



McDonald et al., 2013; McLeskey & Brownell, 2015). Inadequate opportunities for teacher candidates to practice are problematic when considering research on professional learning in other fields. Studies of training in medicine, music, the military, and sports have shown that professionals learn best when they have repeated opportunities to practice the essential components of effective performance, receive feedback on their performance, and receive support in analyzing and improving their performance (Ericcson, 2014).

The HLPs provide an anchor for teacher educators and other preparation providers that enable them to design a focused curriculum that integrates coordinated, effective practice opportunities that are threaded throughout the program. These practices, and ways of increasing special education teachers' sophisticated of them in different content areas (e.g., reading and mathematics) become the foundation for developing a cohesive approach to educating these teachers from initial preparation to induction and beyond. The use of focused, deliberate approaches to educating teachers over time is more with practices aligned effective professional preparation that occur other professions. Most important, this type of practice-based approach to teacher education produces beginning special education teachers who are prepared to engage in the types of complex instructional practice and professional collaborations that are required for educating students with disabilities effectively.

Identifying HLPs in special education has the potential to substantially improve preparation teacher and. ultimately. outcomes for students with disabilities and others who struggle to succeed in school. This new direction in teacher preparation Ball & Forzani, 2011; Grossman, Hammerness, & McDonald, 2009) reflects the core values that have provided the foundation of special education instruction for many years: That is, if someone needs to learn something, the special educator should identify what the person needs to learn, and provide systematic instruction until the learning is demonstrated. The establishment of HLPs in the field of special education has the potential to provide many benefits for teacher preparation in bridging research and practice and helping the field

(a) articulate a common language for specifying practice, which would facilitate the field's ability to engage in collective activity; (b) identify and specify common pedagogies in teacher education; and (c) address the perennial and persistent divides among university courses and between university course work and clinical experiences. (McDonald, Kazemi, & Kavanaugh, 2013, p. 378)

Collective action among those who prepare teachers and provide continuing professional development is needed to enact this new vision of teacher preparation and professional development. There are obvious risks involved, primary among them the possibility that (as has occurred in the



past with major initiatives to improve teacher preparation) there will be a "proliferation of approaches driven more by the trend than by a deep understanding of how people learn to enact ambitious professional practice" (McDonald et al., 2013, p. 379). Given this history, those in the field must-albeit with caution-begin to enact this new vision of teacher preparation, which promises to build bridges between schools and teacher preparation programs and improve the preparation of teachers in ways that will substantially benefit students with disabilities and others who struggle in schools.

### **About the Publication**

The publication *High-Leverage Practices* in *Special Education* page 10 provides those involved in special education teacher preparation and professional development with a set of HLPs that were identified through consensus among special educators. These HLPs may be used to design a

cohesive set of practice based opportunities to support teacher candidates and practicing teachers in learning to put this know-how to use on behalf of the complex learners they teach.

CEC's HLPs are provided across four intertwined components of special education teacher practice-collaboration, assessment, social/emotional/behavioral practices, and instruction. The 22 HLPs are intended to address the most critical practices that every K-12 special education teacher should master. The Research Syntheses for the HLPs delve more deeply into the rationale and evidence base for each. (As discussed in the Preface, two research syntheses were developed for the practice of providing effective feedback; this item appears in both the Social/Emotional/Behavioral Practices HLPs and the Instruction HLPs.) The appendices provide references for teacher educators, administrators, and teachers alike, with a glossary of terms and additional resources for each of the HLP components.



### References

- Aronson, B., & Laughter, J. (2016). The theory and practice of culturally relevant education: A synthesis of research across content areas. *Review of Educational Research*, 86, 163-205. doi:10.3102/0034654315582066
- Ball, D., & Forzani, F. (2009). The work of teaching and the challenge of teacher education. *Journal of Teacher Education*, 60, 497-511. doi:10.1177/0022487109348479
- Ball, D. & Forzani, F. (2011). Building a common core for learning to teach: And connecting professional learning to practice. *American Educator*, 35(2), 17-21, 38-39.
- Ball, D. L., Sleep, L., Boerst, T., & Bass, H. (2009). Combining the development of practice and the practice of development in teacher education. *Elementary School Journal*, 109, 458-476. doi:10.1086/596996
- Cook, B. & Odom, S. (2013). Evidence-based practices and implementation science in special education. *Exceptional Children, 79*, 135–144.
- Ericcson, K. (2014). The road to excellence: The acquisition of expert performance in the arts and sciences, sports and games. New York, NY: Taylor & Francis.
- Goe, L. (2006). The teacher preparation-teacher practices-student outcomes relationship in special education: Missing links and next steps. A research synthesis. Washington, DC: National Comprehensive Center for Teacher Quality. Retrieved from https://www.relcentral.org/resource-download/?id=1333&post\_id=1332
- Grossman, P., Hammerness, K., & McDonald, M. (2009). Redefining teaching: Reimagining teacher education. *Teachers and teaching: Theory and Practice, 15*, 273–290. doi:10.1080/13540600902875340
- Grossman, P., & McDonald, M. (2008). Back to the future: Directions for research in teaching and teacher education. *American Educational Research Journal*, 45, 184–205. doi:10.3102/0002831207312906
- Hanushek, E. A., & Rivkin, S. G. (2010). Generalizations about using value-added measures of teacher quality. *American Economic Review: Papers and Proceedings*, 100, 267-271. doi:10.1257/aer.100.2.267

- Klingner, J. K., Brownell, M. T., Mason, L. H., Sindelar, P. T., Benedict, A. E., Griffin, G. G., Lane, K., ... Park, Y. (2016). Teaching students with special needs in the new millenium. In D. Gitomer & C. Bell (Eds.), *Handbook of research on teaching* (5th ed., pp. 639-717). Washington, DC: American Educational Research Association.
- 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. doi:10.1177/0014402915598782
- Master, B., Loeb, S., & Wyckoff, J. (2014). Learning that lasts: Unpacking variation in teachers'effects on students' long-term knowledge (Working Paper 104). New York, NY: Calder Urban Institute. New York: Calder Urban Institute. Retrieved from http://curry.virginia.edu/uploads/resourceLibrary/22\_Master\_Learning\_that\_Lasts.pdf
- McDonald, M., Kazemi, E., & Kavanaugh, S. (2013). Core practices of teacher education: A call for a common language and collective activity. *Journal of Teacher Education*, 64, 378–386. doi:10.1177/0022487113493807
- McLeskey, J., & Brownell, M. (2015). *High leverage practices and teacher preparation in special education*. Gainesville, FL: CEEDAR Center. Retrieved from http://ceedar.education.ufl.edu/wp-content/uploads/2016/05/High-Leverage-Practices-and-Teacher-Preparation-in-Special-Education.pdf
- NCATE. (2010, November). Transforming teacher education through clinical practice: A national strategy to prepare effective teachers. Report of the Blue Ribbon Panel on Clinical Preparation and Partnerships for Improved Student Learning. Washington, DC: National Council for Accreditation of Teacher Education (NCATE). Retrieved from http://www.ncate.org/LinkClick.aspx?fileticket=zzeiB1OoqPk%3D&tabid=7
- U.S. Department of Education. (2010). A blueprint for reform. The reauthorization of the Elementary and Secondary Education Act. Washington, DC: Author. https://www2.ed.gov/policy/elsec/leg/blueprint/blueprint.pdf
- 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. 10.1002/sce.21027