

Specially Designed Instruction

GUIDANCE DOCUMENT



Exemplary Practices That Benefit Children With Disabilities



MISSISSIPPI
DEPARTMENT OF
EDUCATION

Ensuring a bright future for every child

Office of Special Education

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The Purpose of This Document

The core of special education is specially designed instruction (SDI). The purpose of this document is to define SDI as it relates to the content, methodology, and delivery of that instruction for students with disabilities. The distinctive features of SDI are presented in this document to promote common language and understanding for all stakeholders. The information focuses on the practical aspects of understanding, designing, delivering, and evaluating SDI. This document serves as guidance for Individualized Education Program (IEP) teams, administrators, educators, related services personnel, other practitioners, and parents as they determine the amount and types of SDI students need and as they plan and implement it.

The Individuals with Disabilities Education Act (IDEA) 2004 clearly defines students with disabilities as general education students first. IDEA further states that students with disabilities are to be educated with their non-disabled peers to the maximum extent appropriate. In addition, a "statement of the specific special education and related services to be provided to the child and the extent that the child will be able to participate in [general] educational programs" must also be included in the student's Individualized Education Program (IEP). (Individuals with Disabilities Education Act [P.L. 101-475, 34 CFR 300.346(a)(3)]).

This document contains several sections. First, it clarifies what SDI is and is not. Second, it outlines the steps necessary for identifying student needs, selecting SDI practices, implementing them with fidelity, and verifying their effectiveness. In addition, this guide includes numerous examples of SDI applicable across settings and subject areas as well as techniques explicitly for academic instruction, language development, and behavior. Focus is also placed on students in early childhood programs, those with a significant cognitive disability and those who are transitioning from school to postsecondary options. Two additional sections include information about SDI in relation to other Mississippi initiatives, including Multi-Tiered System of Support (MTSS), response to questions professionals are likely to have, and the design and delivery of SDI.

The SDI presented in this document can be implemented across educational settings by a variety of educators and support staff. While this document does not contain an exhaustive list of SDI, it does contain examples that are applicable to many students, grounded in a strong research base, and relatively easily implemented.

Finally, this document also contains information to help educators reflect on their practices as they plan, implement, and deliver instruction to support the learning and progress of all students. As professionals increase their knowledge and skills for educating students with exceptional needs, other students benefit from their recognition of the importance of adjusting instruction to the unique characteristics of each learner and the using the techniques to maximize their students' success.



Specially Designed Instruction (SDI)

Specially designed instruction (SDI) is how students with exceptionalities receive high-quality and individually tailored teaching that results in progress toward academic and functional standards, graduation, and meaningful postsecondary outcomes. It is the most fundamental part of the special education services to which identified children are entitled.

SDI definition

Several components contribute to the definition of SDI. The beginning point is this: To qualify to receive special education services, a student must have a disability as defined by the Individuals with Disabilities Education Act (IDEA). The identified disability must include a need for special education services. This means that SDI discussions are focused on students who have been assessed and determined to be eligible to receive these services. Next, these students must be provided with a free appropriate public education (FAPE). For eligible students, special education is defined in the law as “specially designed instruction, at no cost to the parents, to meet the unique needs of a child with a disability.” (34 CFR 300.39) This is a key point because it specifies that all special education is about ensuring that students with disabilities receive SDI.

The regulations for IDEA add detail to the meaning of SDI, stating that SDI includes adapting the content, methodology, or delivery of instruction to meet a child’s unique educational needs and to ensure that the child can access the general curriculum and meet its standards. This deepens the expectations for SDI, noting that it must be directly related to the child as a learner with an exceptionality and cannot just be what is done to educate all learners. Further, the regulations set a rigorous bar by specifying that SDI should have the goal of enabling a child with a disability to learn in the curriculum available to all students.

IDEA defines special education as “specially designed instruction, at no cost to the parents, to meet the unique needs of a child with a disability.”

(34 CFR 300.39)

IDEA regulations clarify SDI by stating the following:

“Specially designed instruction means adapting, as appropriate to the needs of an eligible child under this part, the content, methodology, or delivery of instruction—

- (i) To address the unique needs of the child that result from the child’s disability; and**
- (ii) To ensure access of the child to the general curriculum, so that the child can meet the educational standards within the jurisdiction of the public agency that apply to all children**

(CFR §300.39(b)(3), 2004).

The information about SDI in IDEA and its regulations is limited, but one recent court case has placed a spotlight on the importance of SDI in the education of students with disabilities. On March 22, 2017, the U.S. Supreme Court issued a unanimous opinion in *Endrew F. v. Douglas County School District Re-1* (137 S. Ct. 988). In that case, the Court interpreted the scope of the FAPE requirements in IDEA, indicating “[t]o meet its substantive obligation under the IDEA, a school must offer an IEP [Individualized Education Program] that is reasonably calculated to enable a child to make progress appropriate in light of the child’s circumstances.” The Court also emphasized that “every child should have the chance to meet challenging objectives.” This decision is important because it informs professionals’ efforts to improve academic outcomes for children with disabilities. (Q&A on U.S. Supreme Court Case Decision *Endrew F. v. Douglas County School District Re-1*, 2018). In essence, the *Endrew F.* case is interpreted as a call to action for special education professionals to be certain that they are identifying challenging but attainable goals for their students, using techniques that have been demonstrated to be effective in educating students with disabilities, and documenting the impact of those techniques on student outcomes (Yell & Bateman, 2017).

Another way to understand SDI is to look more carefully at the three dimensions of teaching that are adjusted for students, that is, the (a) content, (b) methodology, and (c) delivery of instruction as shown in this chart.

Dimensions of Specially Designed Instruction <i>Adapting as Appropriate</i>		
Content <i>The What</i>	Methodology <i>The How</i>	Delivery <i>The Who, The Where, The When</i>
<p>Content is what students are learning, that is, the standards of the core curriculum (or, for students with intensive support needs, the aligned curriculum). Adjustments do not change the standards. Instead, they change the materials and activities used, include the teaching of pre-skills, and so on. IEP goals should be based on content standards, and adapting content should lead to the accomplishment of IEP goals which leads to the achievement of the standards.</p>	<p>Methodology is the process through which instruction is delivered, that is, how students are taught. It includes the broad approach to education (e.g., direct explicit instruction) as well as specific strategies and techniques (e.g., acronym-based learning strategies, extensive use of manipulatives or other visuals as part of instruction, multi-sensory techniques, etc). It also addresses the sequencing of instruction.</p>	<p>Delivery refers to the who, where, and when of instruction. It includes the following:</p> <ul style="list-style-type: none"> • The professionals and support staff who provide a student’s education • The use of technology as an instructional tool • The location of services (e.g., general education setting, resource room, etc.) • The instructional group size (e.g., large group, individual, etc.)

What SDI is and is not

SDI is a complex concept. Many professionals ask whether the educational services and activities that they are accustomed to providing as they teach students with disabilities are, in fact, examples of SDI. The chart below summarizes information that can help clarify what SDI is and is not. This is not a one-size-fits-all commercialized program.

Is...	Is Not...
In addition to core instruction	In the place of core instruction
A service	A place
What a teacher does	What a student does
Teaching specific skills a student does not have in order to access and make progress toward annual goal(s) which, in turn, assists the student to reach the standards of the general curriculum	A restatement of the academic content standards being taught
Unique instruction developed from standards-based IEP goals provided to promote progress toward the student's annual goal(s)	A commercial program
Specific to the student (individualized)	A schedule
Instruction that enables a student to make progress in the general education curriculum to close the gap in academic performance as compared to general education peers	An excuse for setting low expectations or teaching below grade level (not making grade-level content available/accessible to a student with disabilities)
 Methodology and delivery are often intertwined.	

Terms related to but distinct from SDI

Many different terms are used when discussing the education of students with disabilities. These terms are often used in special education, but they are not synonyms for SDI.

- **Differentiation.** Differentiation is based on the understanding that today's schools serve a diversity of learners and that every teacher should use a framework to guide their thinking on how to best meet each student's needs. Differentiation is a way of analyzing student learning throughout the instructional process and adjusting lessons as the need arises (Tomlinson, 2017). Differentiation usually includes changes in
 - **Lesson content.** Based on assessment and other information, some students may need advanced content, some may learn planned content, and some may need content to be prioritized so that the most critical parts of it are stressed.
 - **Lesson process.** Teachers adjust the input students access for learning. Some learn best using print materials, some do best with illustrations, and some excel when they listen. The lesson process also may relate to grouping students, with some working alone, some with a partner, some in a small group, and some in a larger group.
 - **Lesson product.** Students may demonstrate what they have learned by writing, drawing, orally explaining, or demonstrating. Teachers emphasize the importance of checking student learning rather than relying on a single method of learning that might place some students at a disadvantage.
- **Accommodation.** Accommodations are the tools provided to students with disabilities that facilitate access to the general curriculum. Note that accommodations are also provided to students who have Section 504 plans. Accommodations include changes in
 - **Presentation** (e.g., large print, recorded instead of live lecture, one problem on a page instead of several, etc.)
 - **Response** (e.g., using speech-to-text technology, writing notes instead of sentences, pointing to pictures, etc.)
 - **Setting** (e.g., preferential seating in a general education classroom, use of a desk carrel to block out distractions, assessments delivered in a small-group environment rather than a general education classroom, etc.)
 - **Timing and scheduling** (e.g., additional time to complete assignments or assessments, instruction for brief periods with breaks built in, etc.)

For students with disabilities, accommodations are noted on the IEP, and they must be provided and documented. Although there is often some overlap between what a caring teacher would do for any student (e.g., making sure the student is seated in a classroom location that helps him focus) and special education accommodations, the latter is not provided based on teacher preference, nor are they occasional. They are required as per the IEP. Finally, some professionals think of accommodations only in terms of assessments, but instructional accommodations are just as important.

- **Modification.** For students with disabilities, modification is a term that applies to the curriculum standards for a very limited group of students, that is, generally those who have a significant cognitive disability. Modification usually occurs when the IEP team decides that the student should participate in the Mississippi Alternate Academic Achievement Standards (MS-AAAS) and take the Mississippi Assessment Program-Alternate (MAP-A). This is an option that should be applied to only a very few students and refers to significant changes/simplifications to the general standards. For most students with disabilities, modifications are not a consideration.

SDI and IEPs

SDI is based on information contained in the student's IEP that is written by the IEP team following a clear set of procedures. Mississippi has adopted Project Forum's seven-step process for creating a standards-based IEP (Holbrook, 2007):

- **Step 1:** Consider the grade-level content standards for the grade in which the student is enrolled or would be enrolled based on age.
- **Step 2:** Examine classroom and student data to determine where the student is functioning in relation to the grade-level standards.
- **Step 3:** Develop the present level of academic achievement and functional performance.
- **Step 4:** Develop measurable annual goals aligned with grade-level academic content standards.
- **Step 5:** Assess and report the student's progress throughout the year.
- **Step 6:** Identify SDI as well as accommodations and/or modifications needed to access and progress in the general education curriculum.
- **Step 7:** Determine the most appropriate assessment option.

SDI is the sixth step in standards-based IEP development. It is determined after a student's present levels of academic achievement and functional performance (PLAAFP) and goals are developed. The IEP development process outlines three questions to ask during this sixth step:

1. What are instructional strategies, techniques, or interventions that can lead to the accomplishment of the student's IEP goals?
2. How do the student's characteristics as a learner affect decisions about the strategies, techniques, or interventions that should be selected?
3. What are the accommodations and/or modifications that should accompany the strategies, techniques, or interventions to be implemented?

This information can come from several areas in the IEP. The PLAAFP statement contains current levels of instruction that indicate the need for adjustments to content. The PLAAFP also contains student deficits and needed supports that help determine the techniques for specially designed instruction that will help the student to make progress in the general curriculum. The student's response to academic instruction can shed light on the types of concepts that have been proven to be most difficult. Also, the student's response to academic instruction can help determine the instructional approaches that are most successful with the student and the delivery models likely to be effective. IEP goals and short-term objectives can help clarify the most successful approaches of instruction for that individual student.



Who designs and monitors SDI?

Qualified special education teachers and related service providers with specialized training and competency (e.g., license, education, and/or credentials) in the area of need, in collaboration with general education teachers, design and monitor SDI. They are the personnel who are employed to ensure that students receive the SDI to which they are entitled, and these professionals are accountable for determining the specific SDI to be selected and ensuring it is implemented and provides benefit to the student.

Who provides SDI?

The IEP team makes decisions about who should deliver SDI. Qualified special education teachers and related service providers with specialized training and competency (e.g., license, education, and/or credentials) in the area of need usually provide SDI, often in collaboration with general education teachers.

General education teachers, therapy assistants, and paraeducators, under the supervision of the special education teacher or related service provider, may assist in the provision of SDI **but may not be the primary provider of SDI.**

When is SDI delivered?

The IEP team is responsible for making decisions about when SDI is delivered. Some students need all or most of their SDI daily, possibly for a large part of the school day. Other students need SDI periodically, perhaps for relatively brief segments of time. SDI is tailored to individual student needs, so there is no single best answer about when students receive it.

Where is SDI delivered?

Because SDI is mandated for students with disabilities, it must be delivered in whatever setting the students are receiving their education. It is not limited to a special education setting. Mississippi offers a full continuum of placements for students with disabilities, summarized in the chart below. The IEP team is responsible for deciding the setting(s) that are appropriate for each student with a disability, and it must select the least restrictive environment (LRE) for the student's education.

Mississippi Continuum of Placements

<p>General education classroom with consultative services</p>	<p>The special education teacher and/or specialized support personnel provide regularly scheduled, ongoing assistance through effective consultative collaboration with the general education classroom teacher(s) to assist in assessing, designing, adjusting, and evaluating SDI to be provided for the student.</p>
<p>General education with supplementary aids and services—includes itinerant instruction and resource room instructional support</p>	<p>Itinerant instruction means instruction or support services that are provided to a student in the general education environment. A special education teacher or support personnel, such as paraprofessionals and/or related services personnel, can provide these services. If support personnel is utilized, then the special education teacher(s) must consult or collaborate with the general education teacher(s). Services provided within the general classroom environment to a child with a disability or group of children with disabilities could include implementation of a behavior support plan, practice on specific skills, or (for related services) initial instruction related to language development.</p>
<p>Co-teaching with the general educator</p>	<p>Special education teachers are paired with general education personnel to provide services in the general education environment. The teachers share instructional and related responsibilities, but each has a primary area of focus. General educators ensure the general curriculum is being presented at an appropriate pace, and special educators ensure SDI is embedded within instructional activities. Instruction occurs with two educators working in the same physical space, most often with students divided into a variety of smaller groups to foster increased instructional intensity.</p>
<p>Resource room instructional support</p>	<p>Special instruction is provided to children who receive the majority of their educational instruction in the general education environment. The children leave the general classroom for some time during the school day for intensive instruction in areas of weakness. Methods can include intensive instruction in curricula areas or review of the material presented in the general classroom. This is considered supplemental instruction; it does not replace the core curriculum and must be scheduled so that students receiving this type of support do not miss core curriculum instruction.</p>
<p>Part-time special class</p>	<p>Children are provided their primary instruction for part of the day in a self-contained environment or class. For the time the student is in this setting (e.g., for English language arts, etc.), the instruction replaces that being delivered in general education.</p>

Mississippi Continuum of Placements

Full-time special class	Children are provided their primary instruction for most of the school day in a self-contained environment or class. If appropriate, children continue to participate in nonacademic classes and extracurricular activities with their peer group. Instruction in this setting replaces that being delivered in general education.
Community-based services	Children are provided their instruction or a portion of their instruction in a community-based environment.
Special school	The education setting is in a school that has a separate administration from the general education setting and is designed to serve children with one or more types of disabilities when it is not possible to educate them in a typical school.
Residential facilities	The setting is a facility that provides special education and related services as well as room and board. The child resides in the facility. The administration is separate from the general education environment.
Home/Hospital	Individualized special education and related services are provided in the home or the hospital.

How is SDI delivered?

SDI is delivered with intentionality an urgent, relentless, intense, precise, direct, highly structured, and carefully monitored manner through customized changes to the content, methodology, and/or delivery of instruction based on the student's deficit areas. Adjustments in the delivery may include the following:

- Purpose and appropriateness of the task
- Complexity of the task
- Size of the task
- Time allotted for teaching the task
- Pace of instruction
- Environment for teaching the task
- Order of learning
- Instructional procedures and routines
- Resources and materials used to teach the task
- Application and demonstration of knowledge
- Level of support/assistance from specialists
- Amount of student independence in participating in and completing learning tasks

Remember that adjustments in delivery that equate to an accommodation alone do not suffice as SDI. Accommodations, including pacing, materials, equipment, grading, assignments, and/or testing structure, do not in and of themselves constitute SDI.

Implementation of SDI

Selecting, preparing, delivering, and evaluating SDI's impact is a key responsibility for special education teachers and related services personnel. Because SDI is intended to address the unique needs of each learner based on IEP goals, no single book, website, or program can be a formula for SDI. Instead, professionals think carefully about each student's needs, search for appropriate strategies and techniques, and then adjust them to maximize learning.

How is SDI selected?

These are the questions that guide special education teachers and related services professionals to select the SDI that best matches each student's needs:

1. What are the student's IEP goals and objectives?

- What must the student know and understand to achieve each goal?
- What information is available from formal and informal assessments to indicate the student's current progress point in achieving the goals and objectives?

2. What are the characteristics of the student as a learner?

- What information is contained in the student's psychological report (or a summary of it)?
- What anecdotal information is available to indicate the student's learning preferences?

3. What information is available from other assessments to inform decisions about the most essential SDI for the student?

- What classroom assessment data are available for review?
- What student work samples are available to indicate the student's learning needs?
- What anecdotal information is reported by teachers, related services personnel, and parents to inform decisions about SDI?

4. What are the specific strategies and techniques that are most likely to (a) address student IEP goals and objectives while also considering student characteristics and (b) result in accelerated learning?

- Does the selected SDI address all the areas of student needs (e.g., academic, social, behavioral, etc.)?
- What SDI is likely to be needed daily or almost daily?
- What SDI is directly related to specific general education curriculum units (e.g., persuasive writing, etc.)?

How is SDI provided to students (planning and implementation)?

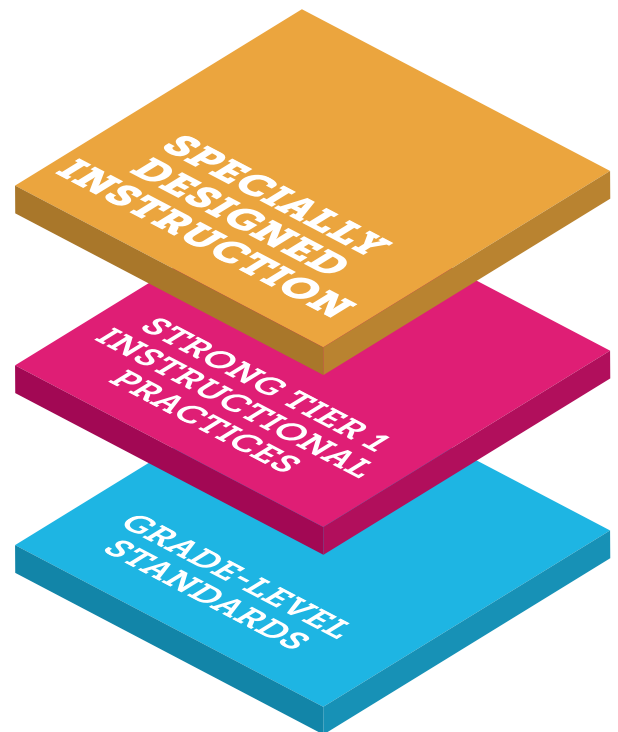
When students with disabilities are educated in general education settings with typical peers and special education services occur there through co-teaching or consultation, it is critical that the special education teacher meets regularly with the general education teacher. The professionals should come to scheduled meetings prepared to contribute their expertise so that students with disabilities receive their SDI embedded in the general curriculum. Topics that usually need to be on a planning agenda include

- Upcoming units of instruction, assignments, projects, and other information related to the general curriculum lessons
- Current learning status of students with disabilities (e.g., areas of progress and areas of concern)
- SDI to be incorporated into the upcoming instruction and ways that can be accomplished
- A plan for gathering data to document that SDI is delivered and the impact it has on student learning

When students with disabilities receive special education services in a separate setting (e.g., a resource room, a self-contained classroom, etc.), the special educator generally is responsible for completing a planning process similar to the one above. The most important point to keep in mind is that SDI is intentional. It is supported by data, carefully planned, documented, and monitored so that decisions can be made about its effectiveness and the need to continue, adjust, or discontinue specific strategies and techniques.

Some professionals use a framework like the one in the chart provided (fig. 1) to help them consider all the important dimensions of planning SDI.

Map SDI Onto Curriculum



How is the delivery of SDI verified?

SDI is verified through

- Classroom/therapy space walk-throughs and observations conducted by the building administrator or special education administrator
- Documentation of service provision/in-treatment notes/logs
- Completed data sheets/progress monitoring tools indicating student progress
- IEP reports of progress

Fig. 1

Sample Framework for Specially Designed Instruction

KEY COMPONENTS

Diagnose for Instructional Design		Design for Instructional Delivery		Deliver for Learner Engagement			
Use evidence-based diagnostic practices to:		With a team that has relevant and specialized knowledge, develop a plan that:		Use evidence-based, high-leverage instructional practices to:			
<p>1. Define areas of concern and verify potential reasons for the concern.</p> <ul style="list-style-type: none"> a. Gather and triangulate multiple sources of data. b. Thoroughly review the learner's educational history, focusing intentionally on the setting, curriculum, instruction, and learner's performance to develop a learner profile. c. Pinpoint skills and/or behaviors that are not at mastery. d. Develop an observable, measurable concern that has a verifiable standard based on the data gathered. <p>2. Identify strengths, interests, and preferences that sustain learner engagement.</p> <ul style="list-style-type: none"> a. Identify existing skills to build on through SDI. b. Identify preferences for learning, materials, adult instructional behaviors, and activities that will maximize the likelihood a learner will remain engaged. <p>3. Determine critical supports needed for learner success.</p> <ul style="list-style-type: none"> a. Analyze the data collected to recommend and outline where SDI needs to begin. b. Make an instructional match that includes the environment and approach/materials needed for the learner to access and make progress in the Mississippi standards. 		<p>4. Incorporates evidence-based practices aligned to learner needs</p> <ul style="list-style-type: none"> a. Apply diagnostic results to select appropriate supports for: <ul style="list-style-type: none"> - Access - Engagement - Increasing specific skills b. Explicitly state learner outcomes. c. Determine the intensity and frequency of alterable variables (e.g., grouping, materials, accommodations, time, etc.). d. Use high-leverage instructional practices that match the concept/skill being taught and the learner's needs. e. Maintain high expectations, is coordinated, and is inclusive of the necessary services and supports. <p>5. Aligns to the Mississippi standards and is age-appropriate</p> <ul style="list-style-type: none"> a. Align learning targets to grade level, learning progressions, and foundational skills. b. Align the learner's IEP goals, progress monitoring, and supports to the Mississippi standards. c. Connect supports and services to instruction the learner is receiving throughout the school day. d. Aligned to Mississippi standards and evident in: <ul style="list-style-type: none"> - Learning targets - IEP goal statements - Progress monitoring - Services and supports <p>6. Maximizes opportunities for access and engagement</p> <ul style="list-style-type: none"> a. Address appropriate accommodations and modifications. b. Consider multiple means of engagement, action, expression and representation which are matched to learner need. c. Provide instruction in the general education environment. Removal is considered only if needed for learner success. 		<p>7. Deliver the instruction as designed and monitor instructional fidelity.</p> <ul style="list-style-type: none"> a. Regularly use implementation fidelity, checklists/walkthroughs/observations to ensure: <ul style="list-style-type: none"> - All parts of the instructional plan are implemented as intended. - The instructional plan is implemented with the frequency/intensity/duration as planned. - Instruction includes evidence-based, high-leverage instructional practices. b. Intentionally and regularly engage ongoing implementation support for feedback and guidance (e.g., family, coaches, content experts, etc.). <p>8. Monitor learner progress.</p> <ul style="list-style-type: none"> a. Use assessments/data sources that link directly to skills taught. b. Collect and use formative and summative assessments as planned. c. Gather data with sufficient frequency to make instructional decisions. <p>9. Adjust instruction as necessary based on learner progress and instructional fidelity.</p> <ul style="list-style-type: none"> a. Intentionally collaborate to review/analyze learner data to enhance instructional practices and materials. b. Examine implementation data and progress data to consider: <ul style="list-style-type: none"> - Continuing the plan as written - Gathering more data - Improving implementation - Reducing supports/services - Intensifying/modifying supports 			
INDICATORS THAT SUPPORT ENGAGEMENT FOR LEARNING							
<p>10. High Expectations—Families and Teachers</p> <ul style="list-style-type: none"> a. Share high expectations for the learner. b. Partner to promote self-determination in the learner. c. Have access to and understand the curricular expectations and standards required of the learner. d. Advocate for multiple approaches and strategies that will support the learner and hold his or her interest. e. Recognize their roles in the teaching and learning process and stay up-to-date on pertinent responsibilities in supporting the learner. 		<p>11. Positive Communication—Families and Teachers</p> <ul style="list-style-type: none"> a. Persistently and clearly communicate high expectations. b. Communicate about the learner using preferred methods. c. Communicate honestly, openly, and with respect. d. Seek to understand by asking questions and actively listening. e. Recognize partnership in the teaching and learning process 		<p>12. Active Involvement—Families and Teachers</p> <ul style="list-style-type: none"> a. Engage in collaborative and active problem-solving. b. Value full participation and support active involvement. c. Support and promote positive and trusting relationships with the learner. 		<p>13. Support Learner Learning—Families and Teachers:</p> <ul style="list-style-type: none"> a. Intentionally create and/or support safe, accessible, and inviting environments for learning. b. Establish and connect learners to real-life learning environments. c. Support and promote instruction that maximizes access and learner opportunity for growth. d. Actively seek means to improve learner engagement. 	

CRITICAL FEATURES

How is SDI documented?

Several types of data contribute to SDI documentation.

- The IEP serves as the primary artifact of SDI. SDI is often documented in the special education and related services, accommodations and modifications, and assessment sections of the IEP.
- The PLAAFP documents and justifies the need for SDI it and describes the needs that lead to the adaptation of content, methodology, and/or delivery of instruction that results in SDI.
- The special education teacher or the district/school administrator is responsible for ensuring that the IEP is implemented as written.
- Lesson plans, intervention plans/logs, and treatment notes may also contain specific SDI documentation.
- General educators are expected to contribute to IEP implementation, including documentation about SDI delivery.

How do IEP team members monitor SDI for effectiveness?

IEP members monitor SDI for effectiveness through

- A specially designed progress monitoring plan (IEP progress report)
- Analysis of data that may include, but is not limited to:
 - Repeated, individual student assessment data
 - Comparison of student rate of growth to IEP goals
 - Comparison of student rate of growth to grade-level standards
- Analysis of multiple data sources, including common formative assessments, interim/benchmark assessments, outcome assessments, and universal screenings that indicate positive results for the student
- Collaborative, systematic data review, analysis, and problem-solving by the IEP team to determine when/if:
 - SDI needs to be modified
 - There is a lack of expected progress
 - Goals need to be advanced or adjusted
 - SDI is no longer required
- IEP team feedback
- The building administrator or special education ensuring that the IEP is implemented as written
- Instruction delivered with fidelity, using curriculum and practices consistently, accurately, and as intended

How is SDI communicated to parents?

Information about SDI is communicated to parents in several ways, including:

- Reports on the child's progress toward meeting each annual goal provided concurrently with the issuance of report cards, or more often as determined by the IEP team
- Informative communication in parent-friendly language
- Objective measures of academic, functional, or behavioral achievement that indicate the student's progress toward the IEP goals
- Data-informed descriptions of performance (objective, not subjective)

SDI Examples

SDI occurs using a wide range of strategies and techniques. They share the characteristic of having a research base that demonstrates they have a positive impact on the learning of students with disabilities. There are thousands of examples of SDI. Some are very broadly applicable across grade levels, settings, domains of need (e.g., academic, behavioral, social, etc.), and subject areas. Direct explicit instruction, described below, is an example. Other SDI pertain to specific types of instructional tasks. Cover-copy-compare, also described below, is an example of this type of intervention. The examples in this section are just that—examples. Special educators have the responsibility to be SDI sleuths, finding SDI that matches their students' needs, delivering it with fidelity, and determining its impact on learning.

Direct explicit instruction

Direct explicit instruction is one example of SDI that can be applied in numerous teaching situations for students with disabilities (Archer & Hughes, 2011). With over 50 years of research demonstrating its positive impact on student learning (e.g., Stockard, Wood, Coughlin, & Khoury, 2018), when special education teachers use this methodology, they so do in a way that goes beyond the way general education teachers might use it. Special education teachers begin with data on the student's baseline performance, follow the procedures outlined in the chart below, pay careful attention to matters like choosing and sequencing the examples they use, and make sure that students do not work independently until they are nearly proficient in the skill. They also gather data that documents their use of direct explicit instruction, evaluate its impact on learning, and make adjustments as needed. Although many components of explicit instruction are straightforward, several should be clarified:

- **Prioritization of content.** Because explicit instruction is often used for challenging new content, special educators sometimes make professional judgments about what to prioritize. This does not mean changing the grade level or course standard. Instead, it implies that some content related to reaching the standard is more important than other content.
- **Pre-teaching.** Special educators check that students have the prerequisite skills needed to master the instruction at hand. If they do not, either the skills are taught or accommodations are provided.
- **Telegraphic speech.** When demonstrating a new process or skill for students, it is important to avoid extraneous language. Professionals model by saying out loud only what students should say to themselves. They avoid the “patter” that sometimes occurs in teaching (e.g., reference to last night's football game, mention of a new app to be introduced, etc.).



- **Frequent participation.** For all students, the more they participate during learning, the more they learn and retain. For students with disabilities, this is especially true. Just a few examples of simple ways to increase student participation include
 - **Choral responding.** When a teacher makes a statement or pronounces a vocabulary word and students repeat it, when students read directions out loud together, or when one student responds and other students repeat what that student said.
 - **Fist to five.** When students indicate their confidence level in their understanding from low (fist without no fingers held up) to high (five fingers showing).
 - **Gestures.** When students use thumbs up/ thumbs down or similar actions to agree or disagree with a teacher’s statement or make a choice between two items.
 - **Goal of errorless teaching.** When students are learning new concepts or skills, it is important to first ensure their understanding before challenging them with non-examples or other information that they may incorrectly apply.
 - **Student statement of learning.** An effective way to end lessons is to have students explicitly state what they have learned. This helps them rehearse their new understanding and increases the likelihood they will remember it.

For more information about direct explicit instruction, consider reading Archer and Hughes (2011) or learning about it on the IRIS website, which is referenced at the end of this guide.

Summary of Direct Explicit Instruction as SDI				
Lesson Planning and Start	I Do	We Do	You Do	Lesson Close
Less content	Telegraphic speech	Chaining with students	Delayed until near mastery	Explicit review
Smaller chunks	Demonstration modeling	Frequent participation	Continued close supervision	Student statement of learning
Careful sequence	Think aloud	Immediate feedback—affirmative and corrective	Non-examples only with near mastery	Connect through preview of next lesson
Pre-teaching	Instruction in small chunks	Gradual release: Goal is errorless teaching and learning		Homework only if near mastery

Self-regulated strategy development

Many students with learning or behavior challenges can be characterized as non-strategic learners. They struggle to set goals, make plans, persist when frustrated, and adjust their work when they realize it needs revision. Self-regulated strategy development (SRSD) is another example of SDI with broad applicability. It includes two dimensions:

- **Strategy instruction.** Many learning strategies have been identified as effective for students with disabilities, and they often are based on acronyms. The steps for teaching a learning strategy include the following:
 1. **Prepare for it.** This step focuses mostly on teachers analyzing students' skills and pre-teaching any that are needed but missing.
 2. **Discuss it.** This step focuses on obtaining buy-in from students. It generally emphasizes how a strategy can help students in mastering learning goals.
 3. **Model it.** Teachers show students exactly what they should do to use a strategy, often using a process called "think aloud."
 4. **Memorize it.** One key aspect of strategy instruction is assisting students to become so fluent in their use that they can readily access the strategies when needed. This requires memorizing the acronym and the meaning of each letter.
 5. **Support it.** Professionals work with students to gradually learn and apply the strategy, gradually withdrawing supports as the students gain skill and confidence.
 6. **Own it.** This is the point at which a final evaluation of students' knowledge and use of the strategy is completed, scaffolds are completely withdrawn, and students demonstrate proficiency in applying it.
 7. **Self-regulation.** Some students may be capable of learning a strategy, but unless they also learn how to motivate themselves and apply the strategy, they are not likely to use it over time. Self-regulation skills usually include
 - **Goal setting.** Many students benefit from instruction related to identifying realistic goals and timelines for achieving them.
 - **Self-monitoring.** Students need to learn to be aware if they are doing what they planned to do. This may involve responding whether they are on- or off-task when a timer goes off.
 - **Self-instruction.** Students need to learn to talk to themselves. For example, redirecting their thinking when they are distracted (e.g., "Now isn't the time to think about lunch; I want to finish my assignment.>").
 - **Self-reinforcement.** Students should learn to reward themselves, preferably with positive statements (e.g., "I decided to work for 10 minutes and I did exactly what I said I would do.>").

For more information about self-regulated strategy development, consider reading Reid, Lienemann, & Haganan (2013) or learning about it on the IRIS website, included at the end of this guide. Several examples of acronym-based learning strategies that have been demonstrated to be effective for students with disabilities and that can be taught through the SRSD process are outlined below.

SRSD Across Subjects/Domains

- W** Write a topic sentence.
- I** Identify important information.
- N** Number the pieces of information.
- D** Develop sentences.
- O** Organize sentences with transition words.
- W** Write an ending sentence.

Saddler, Asaro-Saddler, Moeyaert, & Cuccio-Slichko, (2019)

- S** Skim the test.
- P** Plant your strategy.
- L** Leave out tough questions.
- A** Attack questions you know.
- S** Systematically guess.
- H** House clean

Simmonds, Luchow, Kaminsky, & Cottone (1989)

- P** Predict ideas.
- O** Organize the ideas.
- S** Search for the structure.
- S** Summarize the main ideas.
- E** Evaluate your understanding.

Englert & Mariage (1991)

- L** Line up the numbers.
- A** Add the right column of numbers and ask:
- M** More than nine? If so, do more steps.
- P** Put the ones below the column.
- S** Send the tens to the top of the next column.

Reid, Lienemann, & Haganan (2013)

Cover-copy-compare

Although not as common as in the past, students sometimes need to memorize information, whether spelling words, math facts, or other items that help them succeed on more complex learning tasks. One evidence-based technique for memorization is called cover-copy-compare.

The chart below explains how this intervention is implemented.

1. Information to be memorized is listed in the first column.
2. In the second column, the student carefully copies the items.
3. Horizontal cuts are then made so that each item in the first column can be folded over the student's copied response. With the item covered, the student attempts to write the item without looking in the next column.
4. The student checks the accuracy, writing the item again if a mistake was made.

This technique can be made more or less complex by adjusting the number of items to be learned and increasing or decreasing the number of times the student copies or attempts to write the items from memory.

Example: Cover-Copy-Compare

Vocabulary words	Copy the model for practice	Cover the model—copy	Compare your word to the model	If incorrect, copy the model again
1. empire			Correct? <input type="checkbox"/> Yes <input type="checkbox"/> No	
2. Humanism			Correct? <input type="checkbox"/> Yes <input type="checkbox"/> No	
3. Renaissance			Correct? <input type="checkbox"/> Yes <input type="checkbox"/> No	
4. heresy			Correct? <input type="checkbox"/> Yes <input type="checkbox"/> No	
5. colonization			Correct? <input type="checkbox"/> Yes <input type="checkbox"/> No	

How many words did you get correct? _____

Did you meet your goal? _____

Additional SDI examples

Repeated Readings

Whether for stories or informational text, repeated reading is a common SDI practice. Research on this technique has demonstrated in some instances that it improves students' comprehension. In other studies, it has been shown to improve reading fluency.

These are the steps to follow for repeated reading:

1. Identify in advance a passage of about 100-200 words that are at the student's instructional level.
2. Sit with the student in a location without distractions. Make sure that both you and the student can see the book.
3. Have the student read the passage (either aloud or silently).
4. If the student is reading aloud and hesitates over a word for more than 5 seconds, provide the word, have the student repeat it, and then continue reading.
5. If the student asks what a word is, provide it.
6. After the first reading, have the student read the passage again. This can occur up to four times and should be based on the student reading accurately and at a rate of about 85-100 words/minute.

Generalization or Skill Transfer

Many special educators are aware of a problem that occurs when students learn a skill in a resource room or other special education setting. The students know the skill there, but they often do not transfer and use that skill when they return to the general education setting. Part of SDI is explicitly teaching skills so that they generalize. Generalization is accomplished by making sure to adjust the following elements:

- **Adjust the setting.** Special educators should ensure that the student can practice skills in the setting where it was taught, but they should also arrange for practice in other settings (e.g., the general education classroom if the skill was taught in a resource room setting).
- **Adjust the antecedents.** This means providing directions in an alternative way. It could also mean giving the student materials that look different than the original materials. The person who leads the skill practice is also an example of changing the antecedent.
- **Adjust the behaviors.** Changing the student response also facilitates generalization. The student should practice the skill by recognizing it with a set of examples and non-examples, writing out answers, responding to multiple-choice items, and so on.
- **Adjust the consequences.** The student might sometimes be rewarded for using the skill with praise only. Another time an activity reward might be provided. Yet another consequence could be sharing the demonstrated skill with a peer.
- **Gather data.** As in all SDI, a key is gathering appropriate data that documents the student's use of the skill. This information can guide the next steps of instruction and is also a component of progress monitoring.

Additional SDI examples for language development

For many students with disabilities, their primary area of SDI is language. Teachers with a special education license and related service providers with specialization in the area of need have primary responsibility, in collaboration with general education teachers, to plan, implement, and monitor specially designed instruction.

However, language instruction is not the responsibility of a specific individual. It is the responsibility of every individual who comes in contact with a student throughout the day. Modeling proper language is not done solely within the confines of a classroom. Language is to be experienced within all settings.

Allowing a student an opportunity to be enveloped in a language-rich environment will increase their chances of developing the connection between spoken and written language. “Spoken and written language have a reciprocal relationship, such that each builds on the other to result in general language and literacy competence, starting early and continuing through childhood into adulthood.” (American Speech-Language-Hearing Association, 2001)

Strategies for Instructional Delivery—Language Development

Strategies	What it is	What it does	Examples of delivery
Focused Attention	Making eye contact then waiting expectantly to see if the student will offer a more elaborate request	Allows reinforcement of communicative intent	Using a gestural cue to prompt more elaboration or discussion
Forced Stimulation	Providing multiple models of the target skill	Allows the student to improve both functional comprehension and use of the target skill	Using a specific word/phrase repeatedly in interactions (e.g., “Where is my coat? Where is it? Oh, here it is. Here is my coat. Here it is. It is in the closet.” Books: <i>The Foot book</i> , <i>Are you my mother? I can say that.</i>)
Imitation	Repeating what the student says using correct form, content, and use	Increases chances the child will copy the imitation using the corrected form and allows for feedback on phonological, lexical, and syntactic forms.	Student says: “My cup falled.” Teacher says, “Yes, your cup fell.”

Strategies for Instructional Delivery—Language Development

Strategies	What it is	What it does	Examples of delivery
Incidental Teaching	Arranging the setting so the wanted or needed items are visible but out of reach	Allows the opportunity for the student to make a request	Wait for a request by the student. If the student reaches/points/grunts for the doll, provide the initial sound /d/ or word “doll” until the student imitates the sound and receives the request.
Applied Behavior Analysis	A systematic approach to initiating and reinforcing socially important behaviors through environmental influence	Provides explicit instruction on language and communication skills for students who may not learn through observing others	Identify target behavior, measure and observe, then implement strategies such as discrete trial training, incidental training, and pivotal response training to teach the target behavior.
Pivotal Response Training	An intervention or treatment derived from the principles of applied behavior analysis that focuses on pivotal areas of development (motivation, response to cues, self-management, and initiating social interaction)	Helps the student generalize social/communication skills into everyday living.	Naturally occurring reinforcement—provide the student with a requested item after they have requested it appropriately during a natural interaction.
Vertical Structuring	Takes the fragmented utterances produced by the child and expands them into a complete sentence	Uses the student’s naturalistic response and provides cues for spontaneous imitation (e.g. “What is this?” Lion. “Yes, what is the lion doing?” Roar. “Yes, the lion is roaring.”)	Teacher: How was your weekend? Student: Fine Teacher: What did you do that you enjoyed?

Strategies for Instructional Delivery—Language Development

Strategies	What it is	What it does	Examples of delivery
Milieu Communication Training	A technique that includes three components: environmental arrangement, responsive interaction, and conversation-based context	Uses imitative cues and extrinsic reinforcement during interactive activities	Arrange the work areas with items of interest and preference to elicit responses. Provide natural reinforcement when desired communication occurs.
Self-Talk and Parallel Play	Observing the child's interest, ask, "What is that?" or "Tell me what you need." or the SLP waits for a one-word utterance and reinforces by saying "Oh you asked for the marker? Here it is."	Increases the student's sentence length and allows for the opportunity for expanded communication	If a child is playing with blocks, the teacher might say, "Oh, you put the green on top of the red. Now you are making it taller by adding the yellow block."

Adapted from Utah's Specially Designed Instruction Document (2019), (American Speech-Language-Hearing Association, 2001), and (Dynamic Learning Maps Professional Development, 2018)

Additional SDI examples for behavior/social skills

Many students with disabilities experience behavior challenges, and special educators use SDI to decrease inappropriate behavior, increase appropriate behavior, and teach behavior skills.

Reinforcement

Students respond best when professionals focus on contingently rewarding them for appropriate behavior. There are several types of reinforcers that teachers commonly use:

- **Social.** Rewards that involve interactions with others such as a hug or handshake, verbal praise, or a positive note to parents.
- **Activity.** Rewards that allow the student to participate in a preferred endeavor such as time on the computer, time to draw, or extra recess.

- **Privilege.** Rewards that provide the student with special status such as leading the line or being a group facilitator.
- **Tangible.** Rewards that are physical and have value such as stickers, gift cards, small toys, or other items of value.
- **Primary.** Rewards that address basic human needs—in schools this often is food (although in some districts this is inconsistent with policy).

Replacement Behaviors

One helpful SDI technique for students experiencing behavior problems is to teach a behavior that can substitute for the one causing a problem. For a student who tends to display anger when frustrated with the work at hand, a replacement behavior would be to teach the student to say, “I need a 2-minute break.” For a student who avoids certain learning tasks, the student could choose the order of tasks on which he or she works. Replacement behaviors are most effective when they serve the same function as the original behavior (e.g., gaining attention, escaping a situation, etc.), can be used as easily and quickly as the less desirable behavior, and can be consistently applied.

Pre-Correction

One relatively simple SDI behavior technique is to intercept the student and potentially challenging behavior before it happens. This is referred to as pre-correction. For example, if a student tends to enter the classroom boisterously, the teacher could meet the student at the door for a quiet conversation and escort the student into the classroom. If a student wears a hood over the head when a reading assignment is given, the teacher could briefly address with the student before giving directions, possibly indicating that the student would earn a reward for keeping the hood off and head up.

Behavior Contract

A behavior contract is one intervention that can incorporate reinforcement, replacement behaviors, and pre-correction (Bowman-Perrott, Burke, de Marin, Zhang, & Davis, 2015). As part of SDI, a contract has several components, all intended to encourage the student to increase appropriate behavior and decrease non-preferred behavior. The contract includes

- A clear statement of the expected behavior
- The conditions under which an identified reward or a token reward can be earned (e.g., a point, sticker, etc.)
- The conditions under which rewards can be redeemed or the point at which tokens can be traded for tangible items or activities
- The teacher’s responsibilities
- A bonus clause

- A penalty clause
- The length of time the contract will be in place
- Student and teacher signatures. In some instances, an administrator also may sign the contract in addition to the parent(s)/guardian(s).

A template for preparing a contract with a student (Fig. 2) is provided. Keep in mind that

- A contract is only effective if the student understands it and willingly participates in it.
- The template shown can be simplified for younger students or enhanced for older students.
- It often is effective to engage the student in writing the contract, especially in deciding on rewards and what is required to earn them.
- A first contract should be for a relatively short period so it can be quickly corrected if there are problems.
- When student performance on a contract is evaluated, a decision is needed. Should the contract be continued? Should it be adjusted because of problems with it? Should it be discontinued because the behavior has been adequately addressed?

Steps to Follow for Addressing Student Behavior

Whether you use the SDI examples just explained or any of the others available to respond to student behavior, the process to follow generally follows these steps.

1. Identify the behavior that needs to change. Be sure to describe it in observable, measurable terms (e.g., Four times in the past week, Sam said he would not do the assigned task and put his head down, rather than noting that Sam often refuses to work.). If there are several behaviors, decide on which to address first.
2. Analyze the context in which the behavior occurs. Does it happen during transitions? When it is time to begin a reading or writing assignment? Does it occur in the lunchroom or on the playground? Could the behavior be changed by adjusting the context?
3. Identify the gap between the current behavior and an acceptable level of behavior (e.g., many students occasionally refuse to do a task).
4. Decide on a plan to address the behavior and stick to it long enough to determine if the intervention is effective. Remember, sometimes an undesirable behavior will increase before it decreases.
5. Keep data related to the behavior so you can decide if the intervention is having a positive impact. If so, you may decide to continue it or discontinue it if there is no longer a problem, make changes to try to improve effectiveness or feasibility, or decide that a different approach is needed.

A complement to SDI related to behavior is the school's system of positive behavior supports, implemented as part of an MTSS process. You can also learn more about behavior SDI by visiting several of the websites listed as resources at the end of this guide.

Fig. 2

Template for a Behavior Contract

Behavior Contract

Student Name

Subject/Class

I agree to do these things (what, how much, how well, how often, how measured): _____

For doing them, I will receive (what, how much, how often, when): _____

Outstanding performance will be if I: _____

My bonus for outstanding performance is: _____

If I don't meet the terms of my contract, the consequence is: _____

This contract will be renegotiated on _____
Date

Student Signature

Teacher Signature

Date

Date

SDI for Specific Student Groups

Children in early childhood programs

Developmentally appropriate practice (DAP) is a research-based approach to early childhood education that promotes optimal learning and development in young children. By being knowledgeable about what is typical at each stage of development in young children, teachers know where children are in their developmental progress which informs decisions regarding experiences and activities that are best for each child's learning. A child's development follows this sequence of typical development, with later abilities, skills, and knowledge building on those skills already acquired with the development moving toward greater complexity, increased self-regulation, and the use of symbolic capabilities.

Development and learning in early childhood education include physical, social and emotional, and cognitive domains. All three are important and closely interrelated. Development and learning in one domain influence and are influenced by what takes place in other domains. Learning proceeds at varying rates from child to child, with early experiences having profound effects on each child's development by shaping their motivation, persistence, initiative, and flexibility.

Special educators adhere to the same DAP understandings as other early childhood educators. However, they add to the strategies and techniques that follow the components that contribute to SDI: additional data collection, breaking tasks into smaller parts, teaching them in a very carefully selected order, reducing the amount of new learning introduced at one time, gathering ongoing data to monitor progress, and adjusting instruction based on the data.



Strategies for Instructional Delivery—Early Childhood

Strategies	What it is	What it does	Examples of delivery
Acknowledge the Student's Actions	Recognizing what the student does or says	Validates the student's efforts through positive feedback	Provide immediate feedback for appropriate behaviors or correct tasks.
Encourage Persistence and Effort	Explicitly teaching procedures to the student rather than just praising and evaluating what the student has done.	Shows the student a correct way of doing something	Provide immediate positive reinforcement for correct/appropriate smaller tasks working towards larger skills.
Give Specific Feedback	Giving precise feedback instead of general comments	Helps the student know what he or she did and what he or she needs to do next	Explain the student and elaborate on the expected change in the behavior or skill.
Self-Talk	Talking out steps to solving problems or skills as you complete them rather than telling students what to do	Helps the student approach problems and new skills strategically	Teacher takes on role of the student and demonstrates self-talk to work through a challenge.
Modeling	Showing the student the correct way to do something	Provides clear expectations for skill or task	The teacher completes the task while the student observes and talks through each step or provides visual supports.
Create or Add Challenge	Making sure the assigned task goes a bit beyond what the student can already do to move beyond current mastery.	Encourages children to expand their learning and take risks	When a student responds to a question or prompt, ask the student follow-up questions to request more detail or an explanation.
Ask Open-Ended Questions	Probing and challenging the student through questions that provoke children's thinking	Promotes the student's thinking and discourse	Ask the student questions about his or her actions during times the student is most knowledgeable about what he or she is doing.

Strategies for Instructional Delivery—Early Childhood

Strategies	What it is	What it does	Examples of delivery
Scaffolding	Give assistance to help children work on the edge of their current competence.	Encourages the student to expand on his or her current level of understanding	Provide the student with a word or phrase that will help them recall a response, skill, or behavior.
Give Explicit Directions	Giving the student facts, verbal labels, and other information to clearly identify desired expectations	Provides clear expectations	I do: teacher demonstration. We do: guided practice. You do: independent performance.
Open-Ended Learning Centers	Spaces where the student has the opportunity to complete various activities in the way he or she chooses	Gives the student practice with skills, including choice-making skills	Role-play with the teacher (direct instruction) in various centers to model appropriate behaviors in each center.
Hands-On Learning	Learning by doing, multi-sensory approach when possible	Directly involves learners by encouraging them to do something in order to learn about it.	Providing tactile manipulatives for learning number concepts along with visual supports

National Association for the Education of Young Children: naeyc.org/sites/default/files/globally-shared/downloads/PDFs/resources/topics/inforgraphic_DAP_2_2.pdf

Children with significant cognitive disabilities

SDI applies to all students with disabilities, including those with extensive support needs. The goal for all students is to foster learning to succeed in the general curriculum. For most students with a significant cognitive disability general curriculum access includes alternate achievement standards aligned to the grade-level curriculum (e.g., Mississippi Alternate Academic Achievement Standards [MS AAAS]). These are specific skills linked to the grade-level Mississippi College- and Career-Readiness Standards. Each standard has a respective learning map with linkage levels that identify basic skills within the standard to set an appropriate challenge for students with a SCD. The MS AAAS should be used to plan and deliver appropriate grade-level academic instruction to students with a SCD when the IEP team has determined that the student will be instructed using alternate standards. This decision must be made based on the SCD Determination Guidance Document.

Mississippi Significant Cognitive Disability Criteria

<p>SCD Standard 1</p>	<p>The student demonstrates significant cognitive deficits <u>and</u> poor adaptive skill levels (as determined by that student’s comprehensive evaluation) that prevent participation in the standard academic curriculum or achievement of the academic content standards, even with accommodations and modifications.</p>
<p>SCD Standard 2</p>	<p>The student consistently requires extensive direct instruction in both academic <u>and</u> functional skills in multiple settings to accomplish the application and transfer of those skills.</p>
<p>SCD Standard 3</p>	<p>The student’s inability to complete the standard academic curriculum is neither the result of excessive or extended absences nor is primarily the result of visual, auditory, or physical disabilities; emotional-behavioral disabilities; specific learning disabilities; or social, cultural, or economic differences.</p>

Note: The instruction for students meeting all three of the above criteria will be based on the Mississippi Alternate Academic Achievement Standards (MS AAAS), and the student should participate in the Mississippi Assessment Program-Alternate (MAAP-A).

To provide a **challenging but obtainable** curriculum to students with extensive support needs, teachers should begin by using the MS AAAS as a guide to develop a student’s IEP and determine the SDI an individual student may need to gain access. For students with a SCD, teachers also need to consider the adaptive and functional needs of a student. Although the extended general curriculum drives the development of the IEP, it will be necessary for teachers to identify what numeracy, literacy, communication, social, behavioral, and life skill goals need to be addressed, with consideration of how these skills can support the student’s access to the MS AAAS for their grade level.

Examples of Goal Development to Support SDI

START HERE	Then plan for...		
Grade Level Aligned	In addition to skills and content the student may also need explicit instruction to gain access to the grade-aligned standard.		
<p>Grade 4 Math The student compares the weight and/or mass of objects using a balance scale with and without nonstandard units.</p>	<p>Communication</p> <ul style="list-style-type: none"> • Answer yes/no questions. 	<p>Pivotal Skills</p> <ul style="list-style-type: none"> • Concept of “balanced” 	<p>Early Numeracy</p> <ul style="list-style-type: none"> • Number ID on scale • Concept of same/more/less
<p>High School ELA The student uses a computer or other electronic media to gather information about a topic.</p>	<p>Early Literacy</p> <ul style="list-style-type: none"> • Type a search engine word with the correct spelling. • Read words related to a topic. 	<p>Behavioral</p> <ul style="list-style-type: none"> • Self-monitor completion of a 10-12 step task analysis. 	<p>Transition</p> <ul style="list-style-type: none"> • Search job openings for potential job interests.

Once the IEP has identified the individual skills a student is working on to obtain better access to the curriculum, a teacher can easily embed skills throughout the day and within instruction in the standards.

Dimensions of Specially Designed Instruction

For Students with a Significant Cognitive Disability

Content

The What

General Curriculum Access

- Aligned Curriculum MS AAAS
- Aligned to the student's assigned grade level
- IEP goals support access to the curriculum
- IEP goals support social, functional, and behavioral skills

Methodology

The How

Explicit Instruction (examples)

- Systematic Instruction
- Task analysis and chaining
- Constant time delay
- Prompting hierarchies
- Simultaneous prompting

Delivery

The Who, The Where, The When

Who?

- Special educator
- General educator
- Paraprofessional
- Related service providers

When?

- Throughout lessons; distributed and embedded instruction

Where?

- General education classroom
- Special education classroom
- Community-based instruction

Providing Quality Instruction and SDI

Teachers should use instructional strategies and techniques that have been demonstrated to be effective (i.e., research- and evidence-based) when planning lessons and activities for all students. Quality instruction for students with a SCD includes systematic and explicit instruction as is required for all students with disabilities. For example, when planning for SDI, teachers should do the following:

1. Identify and define the target behavior (e.g., academic, social) of a specific student.
2. Collect baseline data.
3. Establish a goal or outcome.
4. Select an instructional strategy to use to teach the goal.

Instructional Strategies to Support MS AAAS

Academics

Strategies and Practices	What it is	What it does
<p>Systematic Instruction</p> <ul style="list-style-type: none"> • Time delay • Simultaneous prompting • System of least prompts • Task analysis 	<p>Prompting and fading to promote the acquisition of a new response</p>	<p>Promotes learning and learner independence</p>
<p>Explicit Instruction</p> <ul style="list-style-type: none"> • Model/lead/test • Direct instruction • Multiple exemplar training 	<p>Small steps with clear explanations and demonstrations of the target skill; the student receives practice and feedback until mastery</p>	<p>Provides a series of supports and scaffolds that guide the learner through the learning process</p>
<p>Technology-Aided Instruction</p> <ul style="list-style-type: none"> • Calculators • Computer-assisted instruction • Virtual manipulatives 	<p>Electronic items, equipment, application, or a virtual network used intentionally to teach or maintain a new skill</p>	<p>Improves daily living, work or productivity, and recreation and leisure capabilities</p>
<p>Visual Supports</p> <ul style="list-style-type: none"> • Video modeling • Graphic organizers • Diagrams • Number lines 	<p>Concrete cues that provide information about an activity, routine, or expectation and/or support skill demonstration</p>	<p>Supports the learner to organize the learning environment, establish routines, provide cues, and instruction</p>

Based upon: Wood, Root, & Thompson, 2019

Instructional Strategies to Support MS AAAS

ELA

Strategies and Practices	What it is	What it does	Examples of delivery
<p>Systematic Instruction</p> <ul style="list-style-type: none"> • Time delay • Simultaneous prompting • System of least prompts • Task analysis 	<p>Prompting and fading to promote the acquisition of a new response</p>	<p>Promotes learning and learner independence</p>	<p>Time delay to teach vocabulary</p>
<p>Explicit Instruction</p> <ul style="list-style-type: none"> • Model/lead/test • Direct instruction • Multiple exemplar training 	<p>Small steps with clear explanations and demonstrations of the target skill; the student receives practice and feedback until mastery</p>	<p>Provides a series of supports and scaffolds that guide the learner through the learning process</p>	<p>Multiple examples of characters across text read to teach the concept of character</p>
<p>Story-Based Lessons</p> <ul style="list-style-type: none"> • Adapted grade-aligned text 	<p>Structured process for shared story reading; typically including a teacher task analysis with steps and systematic instruction</p>	<p>Provides opportunities for students to learn and practice literacy concepts as the story is read aloud (e.g., title, predictions, read vocabulary within text)</p>	<p>Adapted text and task analysis</p>

Based upon: Wood, Root, & Thompson, 2019

Instructional Strategies to Support MS AAAS

Mathematics

Strategies and Practices	What it is	What it does	Examples of delivery
<p>Systematic Instruction</p> <ul style="list-style-type: none"> • Time delay • Simultaneous prompting • System of least prompts • Task analysis 	<p>Prompting and fading to promote the acquisition of a new response</p>	<p>Promotes learning and learner independence</p>	<p>Time delay to teach vocabulary (system of least prompts to guide the student through the lesson)</p>
<p>Explicit Instruction</p> <ul style="list-style-type: none"> • Model/lead/test • Direct instruction • Multiple exemplar training 	<p>Small steps with clear explanations and demonstrations of the target skill; the student receives practice and feedback until mastery</p>	<p>Provides a series of supports and scaffolds that guide the learner through the learning process</p>	<p>Multiple examples of concept (e.g., right angle, greater than/less than)</p>
<p>Technology-Aided Instruction</p> <ul style="list-style-type: none"> • Calculators • Computer-assisted instruction • Tablets 	<p>Electronic items, equipment, application, or a virtual network used intentionally to teach or maintain a new skill</p>	<p>Improves daily living, work or productivity, and recreation and leisure capabilities</p>	<p>Use of calculator to solve step of task analysis for division</p>
<p>Visual Supports</p> <ul style="list-style-type: none"> • Graphic organizers 	<p>Diagram that shows the relative positions of the elements and their relationships to one another</p>	<p>Helps the student conceptually understand and solve a problem</p>	<p>Modified Schema-based instruction</p>
<p>Manipulatives</p> <ul style="list-style-type: none"> • Concrete • Virtual 	<p>Tangible or digital, moveable objects</p>	<p>Support conceptual understanding of content; increase attention and engagement</p>	<p>Virtual manipulatives</p>

Based upon Spooner, Root, Saunders, & Browder (2019)

Instructional Strategies to Support MS AAAS

Science

Strategies and Practices	What it is	What it does	Examples of delivery
<p>Systematic Instruction</p> <ul style="list-style-type: none"> • Time delay • System of least prompts • Task analysis 	<p>Prompting and fading to promote the acquisition of a new response</p>	<p>Promotes learning and learner independence</p>	<ul style="list-style-type: none"> • Time delay to teach vocabulary • System of Least Prompts during an experiment • Task analysis of steps of lesson
<p>Explicit Instruction</p> <ul style="list-style-type: none"> • Model/lead/test • Multiple exemplar training 	<p>Small steps with clear explanations and demonstrations of the target skill; the student receives practice and feedback until mastery</p>	<p>Provides a series of supports and scaffolds that guide the learner through the learning process</p>	<p>Example/non-examples training using a model-lead-test format to teach new concepts</p>
<p>Visual Supports</p> <ul style="list-style-type: none"> • Graphic organizers • Pictures • Diagrams • Models 	<p>Concrete cues that provide information about an activity, routine, or expectation and/or support skill demonstration</p>	<p>Supports the student to organize a learning environment, establish routines, provide cues, and instruction</p>	<ul style="list-style-type: none"> • KWHL chart to guide inquiry • Diagrams and models (e.g., animal cell, the earth's layers, etc.)

Based upon Knight, Wood, McKissick, & Kuntz, 2019; Wood, Root, & Thompson, 2019

Instructional Strategies to Support MS AAAS

Communication and Adaptive Skills

Strategies and Practices	What it is	What it does	Examples of delivery
Systematic Instruction <ul style="list-style-type: none"> • Time delay • Simultaneous prompting • System of least prompts • Task analysis 	Prompting and fading to promote the acquisition of a new response	Promotes learning and learner independence	Self-monitoring the completion of each step of a task to completion
Assistive Technology <ul style="list-style-type: none"> • Speech-generating devices/VOCA 	Electronic devices that are portable and can produce either synthetic or digital speech for the user	Allows the student the ability to generate speech	Using an assistive technology device with the overlay of pictures to associate with content to answer questions
Social Narratives	Individualized scripts that describe social situations in some detail	Highlight relevant cues and offer examples of appropriate response	Writing social narratives
Visual Supports <ul style="list-style-type: none"> • Picture schedules • Video modeling 	Concrete cues that provide information about an activity, routine, or expectation and/or support skill demonstration	Supports the student to organize a learning environment, establish routines, provide cues, and instruction	Video modeling for work-related skills

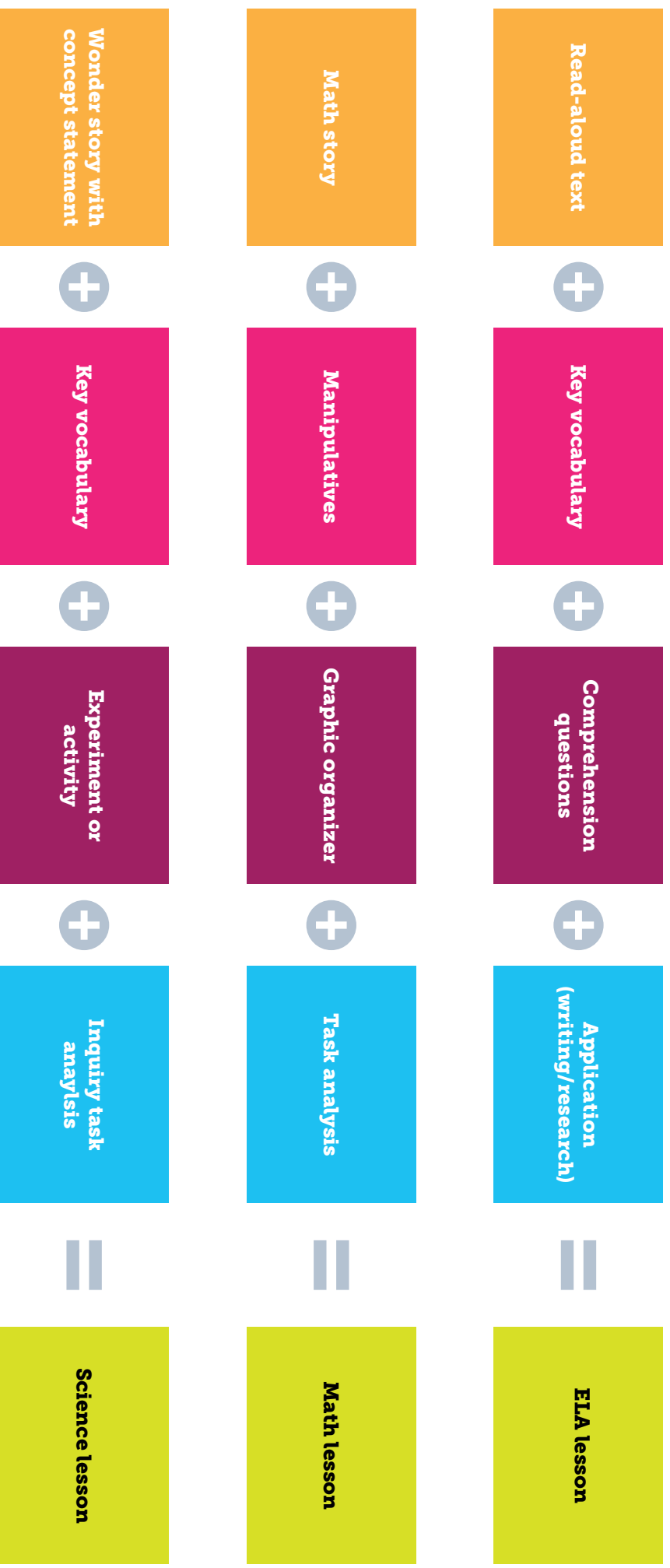
Based upon: Savage and Taber-Doughty, 2019; Wong et al., 2014

Most importantly, instructors need to assume that students with a SCD can learn and attain not only their individual goals but also make progress in grade-level aligned curriculum when high-quality instruction is provided.

High-quality planning includes applying research to practice (See Fig. 3).

Fig. 3

High-quality planning includes applying research to practice



(Jimenez, Courtade, & Browder, 2016)

For example, when planning a science lesson, teachers may use SDI for students by developing a personally relevant science wonder story linking the big ideas of the lesson to a real-life experience in which the science concept exists. The teacher may use systematic instruction to teach the key vocabulary using a constant time delay. Least intrusive prompting is used to support student independence on steps of the task analysis to complete the experiment. Explicit instruction could also be used during the lesson with a model-lead-test for examples and non-examples of the concept taught (e.g., this is an example of energy, this is not an example of energy).

Embedded Instruction and SDI

Embedded instruction refers to embedded learning trials using systematic and explicit instruction within the ongoing routines of the classroom. For students with a SCD, instruction must be designed to meet the students learning needs across all classrooms, environments, and content areas. Embedded instruction allows the teacher to systematically plan for these learning opportunities to occur.

Using the example of the fourth-grade math standard:

The student compares the weight and/or mass of objects using a balance scale with and without nonstandard units.

Embedded Skills:

- | | | |
|---|---|---|
| <ul style="list-style-type: none"> • Answer yes/no questions | <ul style="list-style-type: none"> • Concept of “balanced” | <ul style="list-style-type: none"> • Number ID on scale • Concept of same/more/less |
|---|---|---|

During the math unit/lessons...

The general/special education teacher asks the student to identify when the weight is balanced on the scale with a yes/no response. **Least intrusive prompting** is used to error correct, as necessary.

The paraprofessional uses a **model-lead-test** format to embed **examples/non-examples** of “balanced” using a scale.

The special education teacher uses **constant time delay** to embed number identification when the student is asked to “read scale” (e.g., 8 oz).

Paraprofessional uses a **model-lead-test** format to embed **examples/non-examples** of “same.”

Children transitioning to postsecondary options

Transition is especially important for students with disabilities. Professionals have the responsibility to ensure that, beginning at age 14, transition plans are explicitly discussed and incorporated into the student's IEP. Parents and students should have a strong voice in planning for postsecondary options, and professionals should design, deliver, and evaluate SDI that leads to successful transition.

The importance of transition planning for students with disabilities is highlighted in the Mississippi Indicator 13 Monitoring Protocol. It requires school districts to report the following:

“Percent of youth with IEPs aged 16 and above with an IEP that includes appropriate measurable postsecondary goals that are annually updated and based upon an age-appropriate transition assessment, transition services, including courses of study, that will reasonably enable the student to meet those postsecondary goals, and annual IEP goals related to the student's transition services needs. There also must be evidence that the student was invited to the IEP Team meeting where transition services are to be discussed and evidence that, if appropriate, a representative of any participating agency was invited to the IEP Team meeting with the prior consent of the parent or student who has reached the age of majority.” (20 U.S.C. 1416(a)(3)(B))

Indicator 13 requires that every student aged 16+ with an IEP (no later than age 14 in Mississippi) has a detailed transition plan that includes the following:

- Appropriate, measurable, postsecondary goals based on age-appropriate transition assessments
- A transition services plan that will enable the student to meet his or her postsecondary goals
- Annual IEP goals related to the student's transition service needs
- A focus on education or training, employment, and, as needed, independent living skills (including community participation)

Steps for Transition Planning

Transition planning should start while students are in elementary school. They should be active participants in their IEP meetings, learn to self-advocate, and begin to envision their life after school. When the formal transition process begins at age 14, it generally should include the following steps:

1. Work with the student to determine his or her preferences and plans for adult life. This may include interviews with the student, interest assessments, and/or observations of the student across settings (e.g., school, home).
2. Work with the student to identify possible careers, including analysis of the skills the career would require, the status of the student's skills, and avenues the student could follow to pursue the career.
3. Arrange the IEP meeting (following all required procedures) so that it includes a segment devoted to transition planning and incorporates the same rigor that is expected when discussing academic performance and related IEP goals.

4. Write transition goals using the gathered data and ensuring that they are specific, measurable, achievable, relevant, timely (SMART).
5. Identify and include in the IEP any needed transition services (e.g., community experiences).
6. Implement the transition plan upon participants' approval and gather data on student progress toward achieving goals so they can be reviewed at each annual review. In collaboration with the student and parents, create next-step goals and refine existing ones so that transition is successful.

SDI for Transition

Transition Services

Adapted from the [Mississippi Department of Education \(MDE\) Special Education Secondary Transition Model](#)

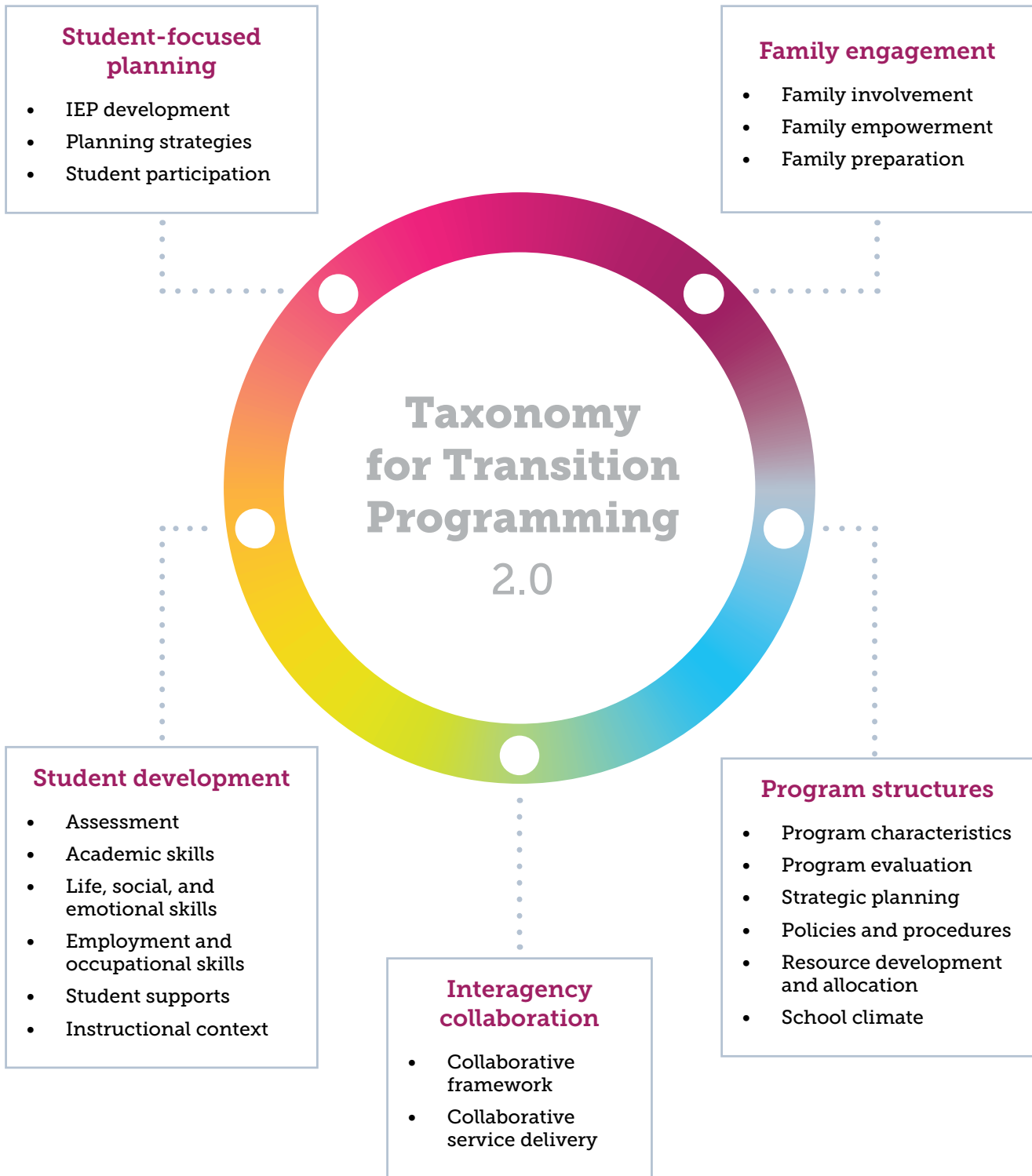
Evidence-based practices (EBP) provide teachers with information about which teaching method in secondary transition has been most effective at helping students with disabilities learn skills that will facilitate movement toward the student's postsecondary goals.

EBP may be used to address the following areas of the Transition Taxonomy:

- [Student Development](#)—strategies in the areas of assessment; academic skills; life, social, and emotional skills; employment and occupational skills; student supports; and instructional context
- [Student-Focused Planning](#)—practices in the areas of IEP development, planning strategies, and student participation in planning
- [Program Structure](#)—practices in program characteristics; program evaluation; strategic planning, policies, and procedures; resource development and allocation; and school climate
- [Family Engagement](#)—practices in family involvement, family empowerment, and family preparation
- [Collaboration Opportunities](#)—practices in collaborative framework and collaborative service delivery

Taxonomy for Transition Programming 2.0

A Model for Planning, Organizing, and Evaluating Transition Education, Services, and Programs



(Kohler, 2016)

Strategies for Instructional Delivery

Transition

Strategies	What it is	What it does	Examples of delivery
Community-Based Instruction	Teaching functional and life skills in the community where they would naturally occur	Allows the student time to practice skills necessary to increase access, engagement, and build relationships in their community.	Teaching ordering from a menu at a restaurant
Computer-Aided Instruction	Using technology in a variety of ways to assist with instruction	Provides independent practice and reinforcement for target skills.	A computer software that provides the student opportunities to hear, see, and use sounds in isolation and in context to develop vocabulary with immediate, corrective feedback
Career Planning	Planning for postsecondary education, employment, and independent living	Helps a student to make informed decisions about his or her future by connecting his or her interests and skills with employment and postsecondary education goals	Provide interest inventories, skills assessments, etc. for the student to identify skill preference, interests, and ability. Provide job shadowing opportunities.
Peer-Assisted Instruction	A cooperative learning approach where effectively trained peers serve as instructional support facilitators	Supports the learning of academic and social skills while encouraging greater persistence in completing tasks and courses	Pair a student with a coach/learner through classwide peer tutoring design

Strategies for Instructional Delivery

Transition

Strategies	What it is	What it does	Examples of delivery
Response Prompting	A strategy that uses stimuli that functions as extra cues and reminders for desired behaviors	Prepares a student to participate in conversations by interpreting verbal and nonverbal cues when communicating (e.g., shopping, banking, using public services, etc.)	Provide verbal instructions, modeling, and physical guidance to demonstrate/perform skills.
Self-Advocacy	A motivation and self-determination strategy designed to prepare the student to actively participate in educational and transitional planning for the future	Helps the student identify strengths and learning needs as he or she sets goals for the future	Teach the student how to set a goal, the steps to achieve it, and how to monitor it. Teach the student to make decisions based on the best possible outcomes.
Self-Determination	A way of teaching the student to engage in self-directed, self-regulated learning through a problem-solving approach	Teaches the student to set a goal, create a plan of action, and make adjustments to goals or plans as needed	Teach the student how to set a schedule and follow it.
Video Modeling	A response-prompting strategy that uses video	Cues and reminds the student of the desired behaviors needed to complete a specific task	Make a video of the student/teacher performing a daily living skill for the student to use as a prompt/model to demonstrate over time.
Field Experience, Field Trip, or Field Study	Experiences outside the classroom that enable the student to extend classroom learning into real-world locales	Allows the student to relate classroom learning to the real world and impacts transition decision-making	Take the student to the bank to deposit money, to the post office to mail a package, or to a store to purchase items on a budget.

Strategies for Instructional Delivery

Transition

Strategies	What it is	What it does	Examples of delivery
Self-Monitoring	Teaching the student to become aware and record his or her behavior	Creates awareness of behavior and its consequences to increase autonomy to make decisions and respond to situations/circumstances	Teach the student to use a checklist to monitor the completion of multiple tasks.
Self-Directed IEP	Coaching the student to be an active participant in the development and implementation of his or her IEP	Provides student participation through active engagement in the transition process	Teach the student through direct instruction (e.g., task analysis, role-play, etc.) to participate and lead his or her IEP planning and goals.
Task Analysis, Chaining, and Backward Chaining	A breakdown of a complex skill into smaller sequences, chaining teaches the steps from the beginning (forward) and the end (backward).	Provides the student logical steps to work toward a complex task	Provide a detailed list of each step in the process of performing a task. Chain the skills in a sequence from step 1 to forward chain, or work in reverse from the final step to backward chain (e.g. dressing/undressing).
Vocational Education	Specific instruction in skills relating to a specified job/career choice	Provides students with the knowledge and skills needed to determine career choice and learn the skills needed to perform specific job/career skills.	Career and technical education programs that provide vocational skill instruction

Strategies for Instructional Delivery

Transition

Strategies	What it is	What it does	Examples of delivery
Community-Based Vocational Instruction (CBVI)	Community-based instruction that focuses on vocational education. Students engage in the community to learn the vocational skills needed to become career-ready.	Increases career readiness by teaching students the skills to become competitive in the workforce	Provide instruction on how to groom dogs at a pet grooming location.
Parent Training	Providing parents with needed information and options to participate in the transition process through workshops, brochures, or other resources	Increases parent involvement and support for the student through the transition process	Hold a parent meeting that provides information on the steps of transition planning, the outcomes of planning, the resources available within the community, etc.
Competitive Employment	A paid work experience (full-time or part-time) within a preferred career choice before graduation	Increases successful employment outcomes	A student gains and maintains part-time or full-time paid employment through the same process as his or her typical peers.
Interagency Collaboration	Structured collaboration between school, professionals, community services, and employers to design and implement transition services	Offers a network of support between the school and the community that provides instruction and opportunities for learning postsecondary skills	Interacting with professional services (PT, OT, S/P), community employers, community service providers, etc. to build a network of support for the student

Adapted from the [National Technical Assistance Center on Transition \(NTACT\)](#)

Virtual Work-Based Learning Experiences

Under the IDEA, postsecondary transition services for a student with a disability include integrated employment experiences (34 CFR 300.43). When students are learning remotely, providing such experiences may require creativity and collaboration between district-level transition coordinators, vocational rehabilitation counselors, and others who support students at this stage. Districts may encourage students to engage in virtual job shadowing. The following websites have free videos that lend insight into various careers.

- nebraskacareerclusters.com. Sponsored by Nebraska's Department of Education, Department of Labor, and Department of Economic Development, this site features videos of nearly 20 different industries in which professionals discuss job requirements, workplace environments, job expectations, salary ranges, and other details. Discussion guides with worksheets accompany all the videos, so students can discuss what they learned with transition coordinators or others.
- CareerOneStop.org. Sponsored by the U.S. Department of Labor, Employment, and Training Administration, students who visit this site can watch videos to learn what a job is like, the level of education and skills needed, average salary, and the likelihood of job opportunities in the future, then talk about what intrigued them afterward.
- kqed.org/education/18675/50-videos-for-career-path-explorations. Offered by public media outlet KQED, Inc., this site features 50 videos for career exploration and supplemental materials to discuss different career paths with students.
- explore-work.com. A collaboration between the Workforce Innovation Technical Assistance Center and George Washington University, this site allows students to go through training modules, including ones about self-advocacy, work experiences, career planning, and workplace readiness.
- cctstfolio.com. This site allows students to practice writing résumés and engage in other aspects of career exploration and preparation. The T-Folio, created by the Center for Change in Transition Services at Seattle University with funding from the Division of Vocational Rehabilitation, offers everything from skills, strengths, preferences, and needs assessments to guidance on how to write a thank-you note following a job interview and how to set goals for self-advocacy.

SDI Related to Other Mississippi Priorities

SDI, while mandated in federal law for all students with disabilities, does not exist in a vacuum. In some ways, it is the most specialized type of assistance that is part of a much larger set of supports available to all students. This section describes several MDE priorities that are distinct from SDI. Students with disabilities should fully access universal design for learning (UDL) and multi-tiered system of support (MTSS) in addition to their SDI.

Universal Design for Learning (UDL)

UDL is an instructional framework that focuses on teaching/learning processes in ways that will serve the needs of the greatest number of students in an educational setting, regardless of their learning characteristics and/or perceived abilities. It is completely applicable to students with disabilities, but it is not a replacement for their legally required SDI.

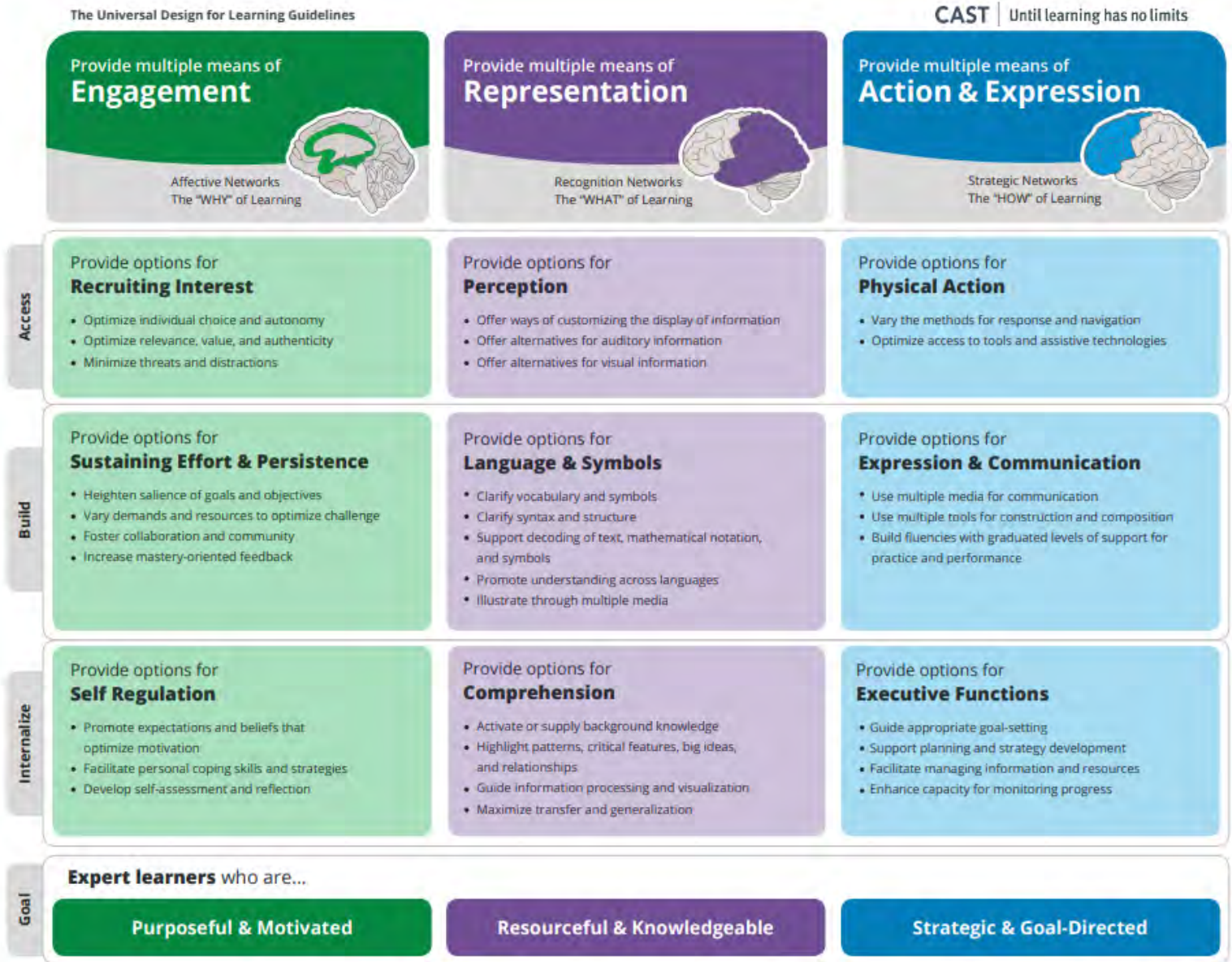
The UDL framework for teaching and learning emphasizes proactive planning of curricula (e.g., goals, assessments, methods, materials) and takes into account the variability of all learners. Further, based on the research from the learning sciences (e.g., education, psychology, neuroscience), UDL has three guiding principles (CAST, 2017):

- **Action and Expression.** This refers to providing students a variety of opportunities and avenues to express what they know
- **Representation.** This refers to presenting information in multiple ways
- **Engagement.** This refers to offering flexible options to engage learners in the learning environment

UDL should be used daily to ensure all students have equitable access to the instruction, technology, and materials necessary for their individual learning characteristics. UDL is implemented through a range of teaching and learning applications designed to take into account students' strengths and needs through equitable use, flexible use, higher-order thinking skills and application, key learning points (foundational and essential skills are taught), and expectations and examples (feedback to ensure task completion through mastery) (CAST, 2017).

UDL benefits all students, including those with disabilities; however, UDL is not the same as SDI. Even when strong UDL practices are in place, students with disabilities still need SDI that addresses their IEP goals and characteristics as learners and is intentional, tailored, and evaluated to assess its impact.

Universal Design for Learning Guidelines



CAST (2018). *Universal design for learning guidelines* [version 2.2]. Retrieved from udlguidelines.cast.org

Multi-tiered system of support (MTSS)

A MTSS is a framework for effective team-based problem-solving that is data-informed, evidence-based, and flexible enough to meet the academic and behavioral needs of all students. The goals of Mississippi's MTSS model are to

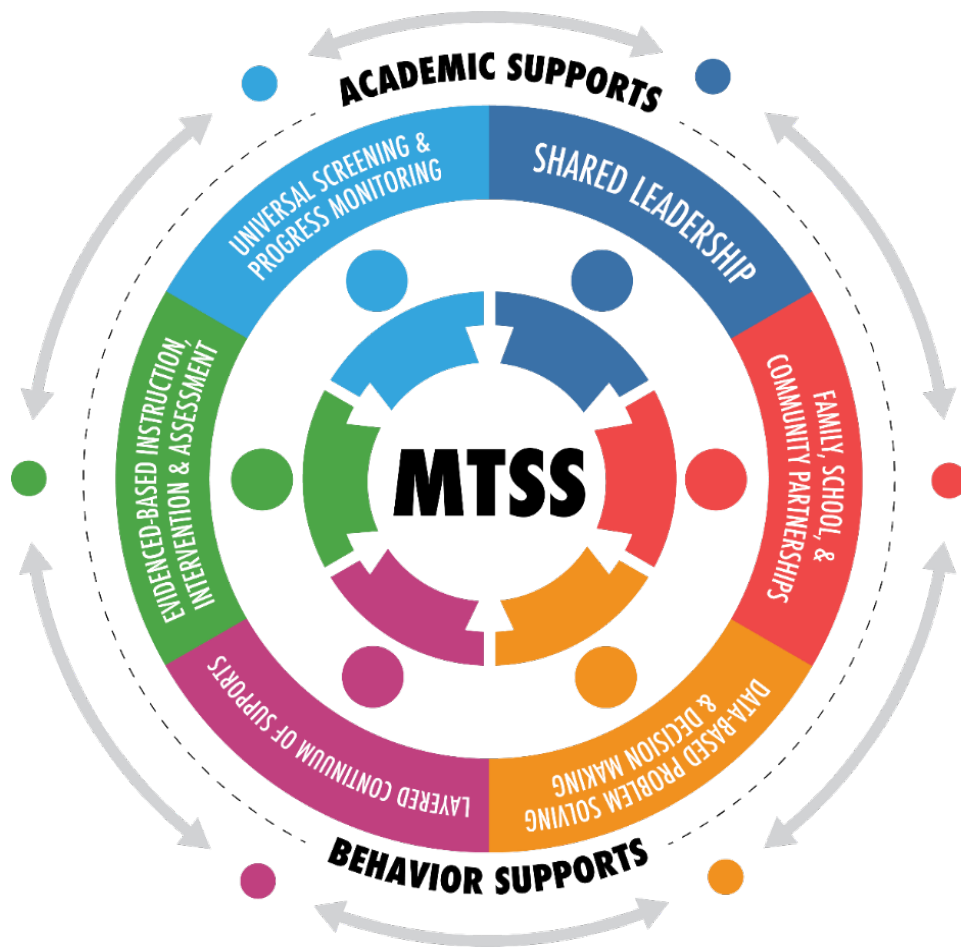
- Identify who needs support as early as possible
- Implement evidence-based interventions for all students
- Use progress monitoring data in determining when to make changes in instruction
- Follow administrative procedures for self-assessment to examine schoolwide practices

The MTSS model includes universal, targeted, and intensive levels of support. Universal (Tier I) represents those supports provided to all students and essentially consists of what might be called rigorous, effective general instructional practices. Tier I practices should be implemented with fidelity before addressing practices for the other tiers. Targeted (Tier II) represents additional supplemental supports provided to remediate or accelerate student success when Tier I instruction has not improved a student's learning trajectory. Intensive (Tier III) represents the most targeted instruction and intervention specifically designed to meet the individual academic and behavioral needs of students who have not made enough progress with the use of Tier I and Tier II interventions. In Tier III, individually responsive supports are developed but may be provided in either a small group or individual format.

Tier II and Tier III supports are provided in addition to, not in place of, Tier I instruction.

In MTSS, professionals recognize the importance of looking at the whole child when challenges are occurring. This is important because academic challenges may lead to behavior problems and inappropriate classroom behavior may result in academic difficulties. In addition, MTSS stresses the importance of collaboration among the school, parents, and the community. Finally, it is premised on the use of interventions that have a strong evidence base of effectiveness. The infographic below summarizes the multiple components of MTSS.

MTSS Essential Components



[MDE Multi-Tiered System of Supports Guidance Document](#)

Instructional layers of an MTSS model incorporate UDL. See the section of this document that describes UDL.

Five anchors of differentiation

As noted earlier in this document, differentiation is a term that is sometimes inaccurately associated with SDI. It is important to emphasize that differentiation is a pillar of instruction for all students and is a key part of exemplary teaching.

The five (5) anchors of differentiation include instructional time, instructional intensity, instructional explicitness, strategic instruction, and response opportunities.

- **Instructional Time.** Provide increased time to interact with the concepts and to improve instructional delivery.
- **Instructional Intensity.** Increase the intensity of the instruction by working in smaller groups on specific skills.
- **Instructional Explicitness.** Teach important concepts using multisensory methods.
- **Strategic Instruction.** Broaden problem-solving abilities by presenting multiple strategies.
- **Response Opportunities.** Increase opportunities to respond, question, and explain thinking.

These anchors are applied across the tiers as universal, targeted, or intensive supports. They are easily addressed by teachers and provide a way to think systematically about how to support student learning regardless of grade level or subject area. The anchors may be employed separately, but often they are used in combination. Students with disabilities are entitled to receive assistance across the tiers using these anchors and other interventions, but the MTSS process is not a substitute for special education services, including SDI.



Instructional time

- Identify areas and enforce math concepts across content areas.
- Increase the time that students have to interact with math.
- Engage students in mathematics.
- Use the eight mathematical practice standards in their teaching.



Instructional intensity

- Scaffold instruction to meet the student's instructional levels.
- Have students work in small groups on mathematical tasks.
- Encourage small groups for all students.
- Incorporate small groups which allow the teachers more interaction with the students to discuss their mathematical thinking.



Instructional explicitness

- Teach through task analysis of new skills.
- Determine the most important and distinct features of a concept.
- Highlight that concept through multisensory methods.
- Use concrete-representational-abstract (CRA), manipulatives, and graphic organizers.
- Build the student's mathematical vocabulary using structured language experiences.



Strategic instruction

- Teach and reinforce study skills.
- Provide multiple means of engagement.
- Teach students problem-solving strategies.
- Give students multiple strategies.
- Use graphic organizers and manipulatives in instruction.



Response opportunities

- Utilize total participation techniques, especially in large group learning.
- Provide multiple ways to express learned skills.
- Encourage your students “to talk math.”
- Let students explain and justify their mathematical thinking to you and each other.
- Facilitate mathematical discussions (i.e., ask good, open-ended questions which allow multiple entry points for all students to participate in the math task).

Special education professionals often find that the SDI they are responsible for providing is not completely separate from these instructional techniques that are part of general, high-quality teaching. This chart demonstrates how UDL, differentiation, MTSS, and SDI are related.

Effective Instruction Incorporating UDL and the Five Anchors of Differentiation Applied to All Tiers of Instruction

Universal Design for Learning (UDL)

UDL is an instructional framework that focuses on teaching learning processes in a way that will serve the needs of the greatest number of students in an educational setting regardless of their learning characteristics and/or perceived abilities. UDL has three guiding principles:

- **Representation:** We must present information in multiple ways.
- **Engagement:** We must offer flexible options to engage learners in the learning environment.
- **Expression:** We must provide and be open to a variety of ways for students to demonstrate what they have learned (CAST.org, 2014).

Five Anchors of Differentiation

Instructional Time	Instructional Intensity	Instructional Explicitness	Strategic Instruction	Response Opportunities
Focus on increasing (a) the amount of interaction time with the content and (b) the quality of instructional delivery.	Target the specific skills students need to acquire guided by progress monitoring data and delivered in small groups.	Highlight important concepts through multisensory methods (e.g., content vocabulary, graphic organizers, etc.).	Teach general and specific strategies that help build metacognitive awareness and increase opportunities to become independent problem solvers.	Allow students to explain and justify their thinking and facilitate discussions by asking questions that give students multiple entry points to the content being taught.

Adapted from: Mathematics RTI: A Problem-solving Approach to Creating an Effective Model (Allsop, et. Al, 2010)

Multi-Tiered Instruction

Tier I (Universal)	Tier II (Targeted)	Tier III (Intensive)
Quality classroom instruction based on Mississippi Curriculum Frameworks	Focused supplemental instruction	Intensive interventions specifically designed to meet the individual needs of students

Tier II and Tier III are in addition to, not in place of, core instruction.

Special Education: Specially Designed Instruction (SDI)

Adapting, as appropriate, the content, methodology, or delivery of instruction to address the unique needs of the student that result from the student's disability to ensure access of the student to the general curriculum, so that the student can meet the same educational standards of the public agency that apply to all students. IDEA 300.39 (b)(3)

- Accommodations support the learned adapting environment to provide access to the general/intended curriculum.
- Related services means transportation and such developmental, corrective, and other supportive services as are required to assist a student with a disability to benefit from special education.
- Assistive technology means any item, piece of equipment, or product system that is used to increase, maintain, or improve the functional capabilities of a student with a disability and the service necessary to directly assist a student with a disability in the selection, acquisition, or use of an assistive technology device.

Examples

EXAMPLE ONE			
UDL	Five Anchors of Differentiation		
<p>Use graphic organizers with manipulatives for all students.</p>	<ul style="list-style-type: none"> • Instructional Time: Provide increased time to interact with the mathematical concepts and to improve instructional delivery. • Instructional Intensity: Increase the intensity of the instruction by working in smaller groups on specific skills. • Instructional Explicitness: Teach important concepts using multisensory methods. • Strategic Instruction: Increase problem-solving abilities by presenting multiple strategies. • Response Opportunities: Increase opportunities to respond, question, and explain thinking. 		
	<p>Create a strategy bank for students to use when they are not sure how to start a problem.</p>	<p>Use CRA methods (e.g., manipulatives, graphic organizers, etc.) specific to the task to provide small group instruction with multiple opportunities for learning and practice.</p>	<p>Include distinct instruction needed for student to progress toward the annual goal(s) outlined in their IEP.</p>
	<p>Ex: Use a graphic organizer to help students keep problems in the correct format.</p>	<p>Ex: Teach students to use a calculator as a tool to better understand how to work the problem.</p>	<p>Ex: Explicitly model for students and allow additional time for them to practice with manipulatives, graphic organizers, or calculators.</p>

Examples

EXAMPLE TWO			
UDL	Five Anchors of Differentiation		
<p>Post strategy and vocabulary banks on a bulletin board for all students to access.</p>	<ul style="list-style-type: none"> • Instructional Time: Provide increased time to interact with the mathematical concepts and to improve instructional delivery. • Instructional Intensity: Increase the intensity of the instruction by working in smaller groups on specific skills. • Instructional Explicitness: Teach important concepts using multisensory methods. • Strategic Instruction: Increase problem-solving abilities by presenting multiple strategies. • Response Opportunities: Increase opportunities to respond, question, and explain thinking. 		
	<p>Present problems in a way that allows students to access the core content being taught.</p>	<p>Determine specific skills students have not mastered to make progress in and access the grade-level core content.</p>	<p>Break instruction into small steps, prioritizing foundational skills and core concepts not yet mastered.</p>
	<p>Ex: Explore the vocabulary words and symbols or signs students will need to know to participate.</p>	<p>Ex: Use multiple strategies to help make connections between two representations; provide opportunities for students to practice and apply each strategy to create conceptual understanding.</p>	<p>Ex: Pick a strategy to explicitly teach the skill; hone in on the characteristics of proportional relationships using one representation, such as tables rather than worksheets that practice just the problem.</p>
SDI			

Examples

EXAMPLE THREE			
UDL		Five Anchors of Differentiation	
<p>Provide self-monitoring tools for students to use to track their progress.</p> <ul style="list-style-type: none"> • Instructional Time: Provide increased time to interact with the mathematical concepts and to improve instructional delivery. • Instructional Intensity: Increase the intensity of the instruction by working in smaller groups on specific skills. • Instructional Explicitness: Teach important concepts using multisensory methods. • Strategic Instruction: Increase problem-solving abilities by presenting multiple strategies. • Response Opportunities: Increase opportunities to respond, question, and explain thinking. 			
SDI	<p>Teach students to track their own progress to help them identify their strengths and areas of needed improvement.</p> <p>Ex: Teach students to graph their performance data (e.g., academic, behavior, etc.) using graph paper.</p>	<p>Review students' progress one to two times per month; graph data and set goals with students.</p> <p>Ex: Teach students to graph their performance and analyze data (e.g., academic, behavior, etc.) for trends.</p>	<p>Monitor progress weekly to ensure students are progressing toward the goal(s) as outlined in their IEP in addition to progress monitoring of core instruction.</p> <p>Ex: Use the student data tracking system to teach students to identify gaps that prevent them from progressing toward and mastering grade-level core content (e.g., Gap Analysis).</p>

SDI/Frequently Asked Questions

Is a general education teacher expected to deliver SDI?

Yes, if a special education teacher or related service provider is involved in the planning, delivery of services, or progress monitoring of an intervention for a student with an IEP, the intervention is part of the student's SDI. The IEP team makes decisions about who should deliver SDI. The most important question for the team is whether the student is responding positively, as evidenced by the rate of growth/progress-monitoring data. If not, one element of the delivery that may require inspection is the level of fidelity with which the intervention is being delivered.

What is SDI?

SDI is the definition of special education in the Individuals with Disabilities Education Act (2004). It includes adjustments in the content, methodology, and/or delivery of instruction to meet the unique needs of students with disabilities as outlined in IEP goals and related information about the student. It is provided in addition to the instruction that all students receive.

Who provides SDI?

In most situations, SDI is selected by the student's special educator or related services provider, and those professionals are primarily responsible for its delivery. However, this often occurs in collaboration with general education teachers who may assist in the provision of SDI. The same is true for therapy assistants and paraprofessionals: They may assist in the delivery of SDI, but accountability remains with the special education teacher or related services provider.

Does SDI include the area of behavior?

SDI includes all domains in which a student's disability is negatively affecting educational performance. This means SDI should address, as needed, behavior, social skills, organizational skills, communication skills, motor skills, and other areas in addition to academic skills.

Where is SDI delivered?

SDI is not dependent on setting. All students with disabilities are entitled to SDI, and it occurs wherever the IEP team has determined they should be educated and for the amount of time they receive services. Thus, SDI occurs in special education classrooms but also in general education classrooms and other settings (e.g., cafeteria), based on student needs and following guidelines about who delivers it.

How do SDI and MTSS connect and work together?

The purpose of MTSS is to provide students early and increasingly intensive interventions to accelerate their learning and possibly avoid the need for special education. SDI is, in some ways, a collective term for the level of instructional intensity that occurs when MTSS has not met the student's needs and it is determined that a disability exists. Keep in mind, though, that MTSS is foundational. Unless strong Tier 1 instruction exists in all classrooms and focused Tier 2 and Tier 3 instruction are offered, SDI may be limited in its effectiveness. SDI builds on exemplary teaching practices.

Is SDI aligned to the state standards?

The goal for all students with disabilities is the achievement of the state standards, and this fact should be reflected in how IEPs are written. Those standards could be considered the content and skills that students are to learn. SDI is the set of strategies and techniques used by professionals to enable students to become more efficient and effective learners, thus fostering their achievement of the state standards. With intensive and research-based SDI, the learning curve for students with disabilities should accelerate and reduce the achievement gaps between them and their peers.

Where is a good place to go for SDI resources?

This guidance document contains many research-based SDI strategies and techniques. It also has related references and a list of valuable websites that can offer additional information and examples. School professionals may find it helpful to identify common areas of concern that need to be addressed by SDI, divide the search for resources, and share what is found. This reduces the amount of work for each special educator while broadening the options for students. One caution is to be sure that techniques have a research base that demonstrates they are effective when implemented with students with disabilities.

How do professionals adjust SDI for a student identified as SCD?

The principles of providing SDI for students identified with a SCD are the same as for all students with IEPs. The IEP team determines the students' goals, and special education teachers select strategies and techniques that lead to achieving those goals. Based on initial and ongoing data collection to determine effectiveness, the SDI may be adjusted. Some specific techniques are more likely to be used with this group of students than with other groups (e.g., errorless teaching), but the tailoring of instruction is the same process used by all special educators to teach their students.

What does SDI look like for preschool students with disabilities?

SDI for preschool students with disabilities follows the same principles as SDI for school-age students. It is based on IEP goals and students' characteristics as learners, and it is designed to foster data-driven accelerated learning. It addresses all the domains in which students have needs, from academic to behavioral to communication to social. It is also provided primarily by special education early interventionists and related services providers, but general education teachers contribute when students are in that setting.

Is transition included in SDI consideration?

There is no exception to the provision of SDI for students with disabilities. The skills that students need to acquire to successfully exit school and transition to adulthood are a critical part of SDI and must be provided.

What is the difference between SDI and differentiation?

Differentiation is a term used to describe all the adjustments that all teachers make to address the diverse needs of their students. It provides a framework for thinking about the many ways to meet students where they are. Differentiation is a concept that applies to students with disabilities as well as to all other students. In contrast, SDI is mandated by law for students with disabilities; must be documented, assessed, and changed based on ongoing data collection; must be demonstrated to have rigor; and must be in addition to the instruction all students receive.

Glossary of Terms

- **Accommodation**—A tool that enables a student with a disability to better access the general curriculum. Some accommodations are applicable to instruction only (e.g., an assignment that is shortened but still addresses the state standard) while others are permitted for both instruction and assessment (e.g., change in formatting or timing).
- **Community-based services**—Children are provided most instruction or a portion of their instruction in a community-based environment (e.g., a business).
- **Content**—Materials, activities, and related substance of the knowledge, skills, and dispositions taught that directly link to standards that most students with disabilities are expected to reach. Content may be an underlying prerequisite needed to meet the standards and is what students will learn.
- **Co-teaching**—A special education service delivery option in which special education teachers are paired with general education teachers so that students with disabilities simultaneously access the general curriculum while receiving the SDI to which they are entitled. Both teachers work with all students. Much of the time spent co-teaching includes students in small heterogeneous or skill-based groups with each teacher leading a group. This instruction occurs with the educators working in the same physical space. Co-teaching sometimes also occurs with a teacher of students learning English and a general educator.
- **Delivery**—The instructional context or conditions, specific to the student with a disability, that results in access to, participation in, and progress in the curriculum and answers where and when the learning will occur. Delivery may include the physical location (e.g., general education classroom, resource room, separate special education classroom), the group size (e.g., whole group, small group, individual with teacher, independent), and the individual delivering instruction (e.g., a special educator, related services personnel, a general educator).

- **Design**—Creation of an IEP (or some of its components) by the IEP team, including a specialist or group of specialists trained and qualified to synthesize student performance data, with knowledge of how the student’s disability affects learning and participation, and with information about the instructional/school environment.
- **Differentiated instruction**— “A process to approach teaching and learning for students of differing abilities in the same class. The intent of differentiating instruction is to maximize each student’s growth and individual success by meeting each student where he or she is and assist in the learning process.” (National Center on Universal Design for Learning, 2014). Differentiation is an expectation for all teachers and related to all students. It is not a special education term.
- **Evidence-based instruction and intervention**—A strategy or technique that has been demonstrated through published research to have a positive impact on student learning, behavior, or other outcomes. The use of such strategies or techniques is a key requirement of special education. An evidence base may not be available in some situations (e.g., intervention for a student with autism or SCD); in such instances, educators should carefully gather data to determine the effectiveness and adjust practices as needed.
- **Expression**—The student demonstration of knowledge, attitudes, skills, aspirations, and behaviors by whatever means the student is able to use (e.g., speech, written language, assistive technology, American sign language, gestures).
- **Free Appropriate Public Education (FAPE)**—Foundational requirement of the Individuals with Disabilities Education Act of 2004 (IDEA) stipulating that special education and related services must be provided at public expense (i.e., without charge to parents), meet state requirements, include an appropriate education that leads to post-school outcomes such as employment or higher education, and conform to the IEP prepared for the student.
- **Full-time special class**—Special education placement in which children are provided their primary instruction in a self-contained environment or class for more than 60% of the school day. As appropriate as determined by the IEP team, children participate in academic and/or nonacademic classes and extracurricular activities with their peer group.
- **General education classroom with consultative services**—Special education placement in which the special education teacher, related services professionals, and/or other support personnel provide regularly scheduled, ongoing assistance through effective consultation with the general classroom teacher(s) to assist in assessing and altering/redesigning the instruction (including accommodations and/or modifications) to better meet the needs of the child.
- **Generalization**—Sometimes referred to as skill transfer, this is the use or transfer of knowledge or skill to new situations (e.g., different setting, different subject area, different format) and taking what is learned during the acquisition phase into novel situations.
- **Home/Hospital**—Special education placement in which special education and related services are provided in the home or in the hospital.
- **Individualized Education Program (IEP)**—Legal document required for every student eligible for special education that is a written plan designed to meet a child’s unique learning needs and improve their academic, behavior, social, and other outcomes.

- **Itinerant instruction in the general education classroom**—Special education service delivery option in which instruction or support services are provided to a child with a disability or a group of children in the general education environment. A special education teacher, related services professionals, or support personnel such as a paraprofessional can provide such service. If support personnel are utilized, the special education teacher(s) must consult with the general education teacher(s).
- **Methodology**—The overall instructional approach (e.g., direct explicit instruction) or specific strategies, techniques, and processes created, selected, utilized, and evaluated to teach or deliver academic instruction to students with disabilities and apply behavioral interventions to teach them social and behavioral learning goals.
- **Modification**—Adjustment to an assignment, test, or activity in a way that significantly simplifies or lowers the standard or alters the original measurement. Modifications change what a student is taught or expected to learn and generally are most applicable to students with SCDs.
- **Multi-Tiered System of Supports (MTSS)**—Systemic framework based on a data-based problem-solving and decision-making process, and including the provision of increasingly intensive, evidence-based, system-wide practices to support a rapid response to students’ academic, behavioral, and social and emotional needs. The overall goal of MTSS is to prevent, if possible, the need for special education.
- **Part-time special class**—Special education placement in which children are provided their primary instruction in a self-contained environment or class for only a minor portion of the day.
- **Picture Exchange Communication System (PECS)**—Alternative communication system developed in 1985 by Andy Bondy and Lori Frost to help some children with autism or other disabilities convey their thoughts and needs. It is now a trademarked program of Pyramid Educational Products.
- **Progress monitoring plan**—Written plan developed by the IEP team that considers the following:
 - Identifying and operationally defining the behavioral or functional knowledge, action/skill, or ability that will be measured
 - Description of how often, time of day, and where student progress will be assessed
 - Identification and description of the data collection method/tool
 - Identification of team members responsible for data collection, fidelity checks, data interpretation, and writing progress reports
- **Remote instruction**—A method applicable across special education and general education in which the student and the educator or information source are not physically present in a traditional classroom environment. Information is relayed through technology such as discussion boards, video conferencing, and online assessments.
- **Residential facility**—Special education placement in which the program provides special education and related services as well as room and board. The child resides in the facility. The administration is separate from the general education environment.

- **Resource room instructional support**—Special education placement in which children receive instruction in a special education setting for a portion of the school day as a supplement to that being provided in general education. The intensive instruction generally addresses areas of weakness that cannot be addressed in the general education setting.
- **Retention**—A student is fluent and accurate, enabling ready access to acquired knowledge, attitudes, skills, aspirations, and/or behaviors over time.
- **Special school**—Special education placement in which the student attends a school that has a separate administration from the general education program and is designed to serve children with one or more types of disabilities whose needs cannot be met in a less restrictive environment.
- **Specially designed instruction (SDI)**—A universally required component that defines special education and stipulates that students with disabilities receive instruction that includes changes in content, methodology, and/or delivery. It is not dependent on setting and is a primary responsibility of special education professionals.
- **Tier I (Core Instruction)**—Quality classroom instruction, based on the Mississippi Curriculum Frameworks, designed to produce positive academic and behavior outcomes for the majority of students. Core instruction includes all students, including those with disabilities.
- **Tier II (Focused supplemental instruction)**—Evidence-based practices and programs demonstrated to improve academic and behavior performance in core instruction; provided in addition to core instruction and accessed by students whose progress in core instruction is not adequate as well as students with disabilities as appropriate.
- **Tier III (Intensive interventions)**—Evidence-based practices and programs demonstrated to improve academic and behavior performance; provided in addition to core and Tier II. Intensive Tier III interventions represent the most targeted and intensive instruction and intervention specifically designed to meet the individual academic and behavioral needs of students and are available to students whose progress in Tier II programs is not adequate as well as students with disabilities as appropriate.
- **Universal Design for Learning (UDL)** —“A scientifically valid framework for guiding educational practice that (a) provides flexibility in the ways information is presented, in the ways students respond or demonstrate knowledge and skills, and in the ways students are engaged; and (b) reduces barriers in instruction; provides appropriate accommodations, supports, and challenges; and maintains high achievement expectations for all students, including students with disabilities and students who are limited English proficient.” (Higher Education Opportunity Act PL 110–315 § 103(a)(24), 2008)

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Electronic SDI Resources

- **A Maths Dictionary for Kids** (amathsdictionaryforkids.com/)
This privately created website includes simple definitions for more than 900 mathematical terms and offers many downloadable math posters.
- **Behavior Advisor** (behavioradvisor.com)
Primarily the work of Dr. Tom McIntyre, professor of special education and coordinator of the graduate program in behavior disorders at Hunter College of the City University of New York, this website includes hundreds of ideas for addressing student behavior challenges.
- **High-Leverage Practices for Students With Disabilities** (highleveragepractices.org)
This website is a joint effort of the Council for Exceptional Children (CEC) and the University of Florida's Collaboration for Effective Educator Development, Accountability, and Reform (CEEDAR) Center. It offers information about 22 practices related to collaboration, assessment, social/emotional/behavioral needs, and instruction that should be the foundation of every K-12 special educator's SDI toolkit.
- **Intervention Central** (interventioncentral.org)
This website includes an array of free resources that support students who are struggling and the RTI/MTSS process. One example is a set of data collection tools, and another is a tool that generates reading passages for gathering data on students' fluency and comprehension.
- **National Center on Intensive Intervention** (intensiveintervention.org)
Supported by the U.S. Department of Education, this website offers a wide variety of resources for addressing students' academic and behavioral needs. The site includes assessment tools, self-paced modules for professionals, and charts that summarize the effectiveness of published interventions.
- **The IRIS Center** (iris.peabody.vanderbilt.edu)
Established 20 years ago and funded by the U.S. Department of Education Office of Special Education Programs, the IRIS Center provides free online resources (*e.g., case studies, instructional modules, etc.*) related to the academic and behavior needs of struggling students, including those with disabilities. Nearly all the topics addressed in this guide are addressed on the IRIS website.
- **Tween Tribune** (tweentribune.com)
Provided by the Smithsonian Institution, this website has student-friendly articles on a wide range of topics. Each article is available at four different lexile levels, Spanish versions are available, and comprehension questions are included.
- **What Works Clearinghouse (WWC)** (ies.ed.gov/ncee/wwc/PracticeGuides)
The WWC exists within the U.S. Department of Education's Institute of Education Science (IES). It provides evaluating research on educational interventions and disseminates that information as its primary goal. This link directs to the site's practice guides that are summaries of research-based interventions and designed to be easily accessed by teachers.

