Evidence-Based and Promising Practices to Support Continuity of Learning for Students With Disabilities

Practices and Resources to Support Teachers

Overview

Because of the COVID-19 pandemic, as of this writing, 21 states and three U.S. territories have ordered or recommended school building closures for the rest of the academic year, with closures impacting at least 124,000 U.S. public and private schools and affecting at least 55.1 million students.[1] In addition, districts in nearly all other states and territories have implemented extended closures with pending dates for reopening. This situation presents challenges for all teachers, particularly for teachers of students with disabilities who often must take on a significant role in supporting their students in virtual learning and distance instruction. This brief presents practices and resources that educators of children and youth with disabilities can use to support students' continuity of learning during school building closures.

Leveraging online, distance, and/or virtual instruction[a] is not new in public education. All 50 states and the District of Columbia offer some form of online and/or blended learning and have since 2011.[2] Thirty-two states and the District of Columbia offer fully online schools.[3] It is estimated that 310,000 students across the country are enrolled in statewide online schools—accounting for 2% of the student population nationwide.[4] As of 2009, 12 states served students with disabilities (SWDs) in virtual public schools.[5] Currently, virtual schools likely serve a higher proportion of SWDs than the national average,[b] while culturally and/or linguistically diverse students are underrepresented.[6] Based on past research and reports, virtual schools are more likely to enroll students with mild disabilities than students with more severe or profound needs.[7] In some virtual school models, the continuum of placements is limited to either an inclusive, general education setting or a self-contained, non–diploma-granting setting.[8]

Because technology is changing and evolving rapidly, research on online learning struggles to keep pace. A systematic review of the literature conducted in 2012 identified only six empirical studies investigating online learning with SWDs,[9] but no recent systematic reviews could be located.[c] Additionally, challenges related to data collection and independent reviews are noted—especially around efficacy of materials, activities, or delivery programs—because of the competitive nature of the industry.[10] The limited empirical evidence is confounded by state policies that often do not explicitly define who is responsible for "ensuring special education services [or Free Appropriate Public Education; FAPE] are provided in online settings" (p. 33[11]). Furthermore, an examination of state policy shows that at least 50% of all states and territories did not provide clear policy guidance related to FAPE in online settings and ensuring accessibility for students with disabilities. Fewer than 25% of states offer any sort of guidance related to individualized education program (IEP) development or implementation in online education.[12] The lack of research and policy may inadvertently result in instruction that is not specially designed to address the unique needs of SWDs.

---

[a] Online learning is defined as "education in which instruction, content, and learning are mediated primarily by network technologies such as the Internet" (p.10[10]). Online learning may encompass full-time virtual learning or blended learning; this brief focuses specifically on virtual learning only rather than blended or hybrid models of online instruction.
[b] Many schools were excluded from reporting due to a lack of data, so this proportion may be overestimated.
[c] One dissertation study,[8] which included a literature review, was located (see
https://scholarworks.uno.edu/cgi/viewcontent.cgi?article=3610&context=td).

IDEAs
that
Work

U.S. Office of Special
Education Programs

Need for Evidence-Based and Promising Practices

Evidence-based practices (EBPs) in education refer to teaching and learning strategies that have been shown by scientific research to be effective in improving academic and/or behavioral performance. Using an EBP does not guarantee that it will be successful with a child but does indicate that the practice has a greater chance of working than those without evidence. Promising practices are those that have shown potential to have positive impact on outcomes for students with disabilities but have not been subject to rigorous testing to demonstrate that impact.

Moving from traditional to virtual models needs to be thoughtful, with the goal of ensuring equitable educational experiences for all learners. Prior to designing and delivering virtual instruction, educators should understand two areas unique to virtual instruction: (a) accessibility and (b) instructional modality, including how these areas may impact their pedagogical approach.

Accessibility

Educators should be aware of the potential barriers facing their students in order to support equitable technological access and use.[13] Many SWDs have deficits in memory, expressive and receptive language, thinking, and problem-solving, which can impede their ability to easily access information presented through computer and web-based technology.[14] Even students who are categorized under the same disability label may have different needs; access to technology should consider individual student needs regarding selected hardware, software, and web-based approaches.[15] Furthermore, accessibility for SWDs extends beyond the ability to navigate web material; students need to know how and when to use specific programs or the Internet for instructional purposes or for assignments. As such, educators should consider accessibility across two domains when planning and delivering virtual instruction for SWDs.

Infrastructure-Level Access	Student-Level Access
• Hardware (e.g., computer, laptop, devices) • Software (e.g., learning management systems, videoconferencing programs, word processing) • High-speed internet and/or Wi-Fi • Software's ability to be used on a mobile or other device	• Cognitive and executive functioning (e.g., reasoning, processing information, working memory) • Physical or sensory concerns (e.g., visual, hearing, mobility) • Reading ability • Ability to use assistive technologies

Instructional Modality

To meet the needs of SWDs in virtual schools, educators need to know how to design and deliver effective online instruction. Both asynchronous and synchronous approaches can be leveraged. Definitions and examples of these terms are as follows:

- **Asynchronous instruction:** Providing instruction or communication to students without meeting at the same place and/or at the same time. Examples include discussion boards, e-mail communication, self-paced learning modules, or providing recorded videos or lectures.

- **Synchronous Instruction:** Delivering instruction and communication to students in real time. Examples include videoconferencing, teleconferencing, live chatting, or live-streamed videos or lectures.

TOPICAL ISSUE BRIEF | Evidence-Based and Promising Practices to Support Continuity of Learning for Students With Disabilities

Practices and Resources to Support Teachers

Page 2

Within the research, studies on virtual learning with SWDs have been conducted across asynchronous[16] and synchronous[17] modalities. For both modalities, it is important that students are explicitly taught how to log in, use software and platform features (e.g., mute, video sharing, chat, discussion boards), save work, submit work, and log off. Additionally, SWDs may require direct instruction on how to use Internet resources, including search engines and navigating sites for relevant information. With proper training and support on how to use technologies, students may demonstrate increases in organizational skills, communication, and self-confidence.[18]

Resources and tools for supporting instruction from a distance using both modalities are described in Table 1.

Table 1. Tools and Practices to Support Asynchronous and Synchronous Modalities of Virtual and Distance Instruction

Examples of Explicit Instruction in Asynchronous Modalities	Examples of Explicit Instruction in Synchronous Modalities
Considerations for Pre-Requisite Skill Coverage • Provide links to videos that cover pre-requisite knowledge and have students submit work samples (e.g., completed graphic organizers, notes, quiz).	**Considerations for Pre-Requisite Skill Coverage** • Review pre-requisite skills with students with similar IEP goals prior to their participation in a whole group lesson or self-paced module.
Lesson or Instruction • Design instruction using a learning management system that consists of pre-recorded lecture or lesson content, links to additional video resources, discussion boards, and/or quizzes. • Provide students with a note-taking template or graphic organizer to complete while watching a pre-recorded lesson and/or when completing a self-paced instructional module. • Have students record themselves completing a practice task that includes them talking through their thinking. • Use discussion forums for students to respond to each other and for you to provide feedback to them. • If a discussion forum is not an option (because of the platform or students' lack of access to needed technology), consider starting an e-mail or text message thread with prompting questions that students can respond to.	**Lesson or Instruction** • Hold a video class with students using a live, streaming feed that allows students to respond (e.g., Facebook Live, Google Meet, Zoom). • Have students watch a modeled lesson in advance and then come to a live, synchronous class session with peers to practice with each other and receive affirmative or corrective feedback. • Keep track of student responses in similar ways to in-person instruction (e.g., popsicle sticks to draw names, check marks on an attendance sheet). • Encourage students to respond using the chat box. • Have students give a "thumbs-up" in the video as a way to monitor their engagement and understanding. • Have students hold up a piece of paper with their responses as you go through a lesson to check for understanding.
Closing • End recorded lessons and/or self-paced modules with a summary. • Have students complete an exit ticket at the end of a self-paced session.	**Closing** • Have one or two students recap major points from the lesson and ask others to share additional ideas prior to logging off. • Have students enter responses into the chat box as an exit ticket.

TOPICAL ISSUE BRIEF | Evidence-Based and Promising Practices to Support Continuity of Learning for Students With Disabilities
Practices and Resources to Support Teachers

Page 3

Examples of Explicit Instruction in Asynchronous Modalities	Examples of Explicit Instruction in Synchronous Modalities
Independent Practice • Provide students with tasks or assignments to complete and submit; after reviewing, record a video with feedback on the student's work and/or e-mail or call the student. • Include both affirmative and corrective feedback. For areas that students continue to need practice, send students reminders of where they can refer back to in the self-paced module or recorded lesson (e.g., the timestamp to start watching from) or send links to additional instructional videos that cover the content differently.	**Independent Practice** • Meet with individuals or small groups of students after a whole-group lesson or self-paced module to provide immediate, corrective feedback (can be done through videoconference or a phone call).
	Additional Practice Opportunities for Some Students • Provide additional virtual, small-group, or individualized meetings or sessions to model and/or facilitate additional guided practice opportunities.

The COVID-19 pandemic presents unique challenges for educators of SWDs due to the specific learning and behavioral needs of SWDs. As a result, educators and families must work together to determine the best course of action for students. The practices presented in this brief may help educators support SWDs' learning during this challenging time.

Summary and Examples of Practices

The following tables describe practices that are supported by research as effective for teachers in supporting virtual instruction for children and SWDs. The first section presents five tables of practices for K–12 teachers with specific practices for specially designing instruction (SDI), universal design for learning (UDL), positive behavioral interventions and supports (PBIS), virtual explicit instruction, and self-regulation. Definitions of approaches, instructional considerations, and additional resources for educators are provided. The second section presents one table of practices for early childhood practitioners, with categories of practices for each area of growth and skill development for young children.

At the conclusion of each section are Examples in Action: brief stories from educators illustrating several of the practices being implemented through his or her personal experience.

TOPICAL ISSUE BRIEF | Evidence-Based and Promising Practices to Support Continuity of Learning for Students With Disabilities

Practices and Resources to Support Teachers

Page 4

Practices for K–12 Teachers

Table 2. Evidence-Based and Promising Practices to Support Continuity of Learning Through Adapting Content: SDI

Within the virtual environment, there is still the opportunity for instruction to be specially designed[d] to meet the unique needs of SWDs as outlined in their in IEP. Because SDI is often delivered by a special educator, collaboration across educational professionals is needed to support the appropriate instructional choices and integration of scaffolds, assistive technology, and/or accommodations or modifications into asynchronous learning modules or synchronous virtual lessons.

Practice Name and Description	Example(s)	More Information
Instructional scaffolding is a process through which a teacher adds supports for students to enhance learning and aid in the mastery of tasks.[19]	**Content scaffolding** • Use familiar content. • Use easier content to start. • Start with easy steps. • Deliver instruction in shorter segments (3–5 minutes) rather than longer lessons. **Task scaffolding** • Specify the steps in the task. • Conduct a teacher-led "think-aloud" when completing steps. **Material scaffolding** • Provide written prompts or cues to help students perform a task. • Incorporate pop-up definitions as students are reading. • Present content through interactive illustrations and/or diagrams. • Provide students with mnemonics for tasks and/or processes. • Teach students how to construct digital writing that incorporates hyperlinks or images to help students connect digital reading and writing.[20]	[IRIS Center Module: Providing Instructional Supports](#)

---

[d] SDI is defined as "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" (34 C.F.R. §300.39[b][3]). SDI should guide educators' selection of appropriate supports.

TOPICAL ISSUE BRIEF | Evidence-Based and Promising Practices to Support Continuity of Learning for Students With Disabilities

Practices and Resources to Support Teachers

Page 5

Practice Name and Description	Example(s)	More Information
An **accommodation** is a service or support that helps a student to (a) fully access the subject matter and instruction and (b) accurately demonstrate what he or she knows related to the child's disability across all of the general education curriculum.[21]	**Instructional accommodations** • Provide graphic organizers. • Provide audio recordings and/or video tutorials of content.[22] • Pair talking with writing.[23] • Group students to work collaboratively.[24] • E-mail lesson notes to students.[25] • Provide key terms and definitions in advance. • Reduce the number of responses students must submit. • Provide additional time to complete sessions and/or assignments. **Incorporate accessible educational materials (AEM)** • Ensure text is accessible for students (consider reading level, language, and/or visual needs). • Ensure video/media is captioned and described (including captions in native languages).[26] **Incorporate assistive technology** • Text-to-speech device integration. • Digital note-taking tools.	**IRIS Center Modules** Accommodations Assistive Technology: An Overview **AEM** National Center on Accessible Educational Materials AEM Resources for Access and Distance Education **Bookshare** Described and Captioned Media Program: COVID-19 Response Learning at Home During COVID-19 (for educators)
A **modification** is a change to the instruction or curriculum for a student in which the content of the instruction or the performance expectations are altered.[27]	Modifications can be used to support SWDs' access to the general education curriculum, but they should not be used to (a) alter what students are expected to learn; (b) reduce a student's opportunity to learn critical knowledge, skills, and concepts across subject areas; or (c) deliver off grade-level material that may result in greater gaps in prior understanding and greater likelihood of being at a disadvantage on assessments. Potential modifications—when selected with individual student's needs in mind—may include: • Reducing assignments, • Varying levels of reading material, • Designing new material, and • Using lower level text.	IRIS Center Module: Accessing the General Education Curriculum

TOPICAL ISSUE BRIEF | Evidence-Based and Promising Practices to Support Continuity of Learning for Students With Disabilities

Practices and Resources to Support Teachers

Page 6

Table 3. Evidence-Based and Promising Practices to Support Continuity of Learning in Adapting Methodology: UDL

Practice Name and Description	Example(s)	More Information

UDL is "a framework to improve and optimize teaching and learning for all people based on scientific insights into how humans learn."[28] The UDL framework can be used when designing asynchronous or synchronous instruction and incorporates a multitude of evidence-based practices to help educators:
 	
• minimize barriers,
 	
• maximize learning through flexibility, and
 	
• support students with managing cognitive load.
 	
When should the practice be used?
 	
1. To engage learners.
Provide multiple means of engagement: Learners differ in how they are engaged or motivated to learn.
  – Recruit interest.
  – Sustain effort and persistence.
  – Support self-regulation.
 	
2. During instruction.
Provide multiple means of representation: Learners differ in how they perceive and comprehend information presented to them.
  – Provide options for perception.
  – Provide options for language and symbols.
  – Provide options for comprehension.
 	
3. To assess student understanding.
Provide multiple means of action and expression: Learners differ in how they navigate learning environments and express what they know.
  – Provide options for physical action.
  – Provide options for expression and communication.
  – Provide options for executive functions.
	UDL can be used within asynchronous and synchronous modalities. Educators should first become familiar with the UDL Guidelines and then apply the guidelines strategically.
	
	1. Start by identifying the academic and/or content standard that will be the focus of the lesson or unit of study.
	
	2. Identify a learning outcome for all learners.
	
	3. Identify student-level barriers related to the instructional materials, methods, and assessments.
	
	4. Backward design instruction by using the UDL principles to minimize barriers.
	
	5. Assess student understanding through multiple means of action and expression.
		Center for Applied Special Technology (CAST)
		
		• About UDL
		
		• UDL Guidelines
		
		• Key Questions to Consider When Planning Lessons
		
		IRIS Center Module: Universal Design for Learning: Creating a Learning Environment that Challenges and Engages All Students

TOPICAL ISSUE BRIEF | Evidence-Based and Promising Practices to Support Continuity of Learning for Students With Disabilities

Practices and Resources to Support Teachers

Page 7

Table 4. Evidence-Based and Promising Practices to Support Continuity of Learning in Adapting Methodology: PBIS

Practice Name and Description	Example(s)	More Information

PBIS helps students build social, emotional, and behavioral skills and reduce problem behaviors.[29] Effective classroom instruction is best delivered when students know what to expect and are positively rewarded for demonstrating the appropriate, expected behaviors. PBIS strategies can be used across asynchronous and synchronous modalities to teach and to reinforce virtual and online behaviors:
 	
• Upon logging in
 	
• During instruction
 	
• When submitting assignments
 	
• When communicating with teachers and peers
	• Identify expectations for virtual and online behaviors.
	  – Create a behavior teaching matrix for remote instruction.
	
	• Teach and model expectations for virtual and online behaviors
	  – *Asynchronous:* Create a separate learning module focused solely on expected virtual and online behaviors.
	  – *Synchronous:* Follow an explicit instruction model of delivery to ensure student understanding.
	
	• Develop visual cues to remind students of expectations during instruction.
	  – *Asynchronous:* Images or icons for various portions of an online, self-paced module to act as cues (e.g., notebook icon for a note-taking assignment, video camera to indicate that the student needs to create a video to submit).
	  – *Synchronous:* Images with a camera to remind students to turn on cameras, face with finger in front of mouth to remind students to mute.
	
	• Acknowledge appropriate virtual and online behaviors.
	  – *Asynchronous or synchronous:* Implement a token economy with rewards that can be accessed online and/or mailed to students.
	  – *Synchronous:* Use group contingencies.
	
	• Correct errors.
	  – Use a private chat to provide individual correction.
		PBIS foundations
		
		• Creating a PBIS Behavior Teaching Matrix for Remote Instruction
		
		• National Center on Intensive Intervention: Reinforcement Strategies
		
		• National Center on Intensive Intervention: Antecedent Modification Strategies
		
		Group contingency resources
		
		• Participating in Classroom Conversations
		
		• The "You-Me" Game
		
		• Yes/No Learning Skills Chart

TOPICAL ISSUE BRIEF | Evidence-Based and Promising Practices to Support Continuity of Learning for Students With Disabilities

Practices and Resources to Support Teachers

Page 8

Table 5. Evidence-Based and Promising Practices to Support Continuity of Learning in Adapting Delivery of Instruction: Virtual Explicit Instruction

Practice Name and Description	Example(s)	More Information
Virtual explicit instruction is "systematic, direct, engaging, and success oriented"[30] that follows an "I do," "we do," "you do" sequence.[e] Explicit instruction should be prioritized for SWDs to ensure they master content in the virtual environment. Research shows it to be most impactful in the following situations: • Students have limited or no background knowledge. • Students are still learning a new skill but have not yet mastered the skill. • Teachers are presenting new content or information to students. • Students have experienced past difficulty with a taught skill.	1. Open the lesson by gaining students' attention.[f] 2. Deliver content. – Identify critical content that is most important for students to learn. 3. Design instruction. – Lessons should be organized and focused. – Begin with the goal[g]. – Review prior skills and knowledge[h]. 4. Deliver instruction. – Instruct using an "I do," "we do," "you do" sequence. » Model for students how to do something step-by-step ("I do"). » Incorporate more frequent responses and monitor student responses ("We do"). » Deliver affirmative or corrective feedback immediately ("You do"). – Maintain a brisk pace. 5. Close the lesson. – Review critical content. – Preview the content for the next lesson. – Assign independent practice. 6. Provide practice opportunities. – Assign independent practice and monitor student progress to determine whether additional instructional opportunities are needed.	[Explicit Instruction Website](#) [Explicit Instruction Online: Recorded Webinar with Anita Archer](#) [Intensive Intervention Course Content: Features of Explicit Instruction](#) [Literacy Strategies to Support Intensifying Interventions](#) and [User Guide for Sample Reading Lessons](#) [Mathematics Strategies to Support Intensifying Interventions](#) [Principles for Designing Intervention in Mathematics](#)

---

[e] "I do" refers to the delivery of step-by-step instructions, likely with modeling. "We do" is when we provide students with guided practice. "I do" is the final phase of the explicit instruction sequence in which a teacher checks first for understanding and then has the student complete independent practice.

[f] Consider the UDL guidelines and the examples for Recruiting Interest, which falls under the UDL principle of providing multiple means of engagement.

[g] The goal could be for a larger unit with success criteria broken down at the lesson level (e.g., The unit goal is to write an equivalent fraction, decimal, or percent. The success criteria along the way may include writing decimals as fractions, fractions as decimals, decimals as fractions and mixed numbers).

[h] Content scaffolds can also be used to activate students' prior knowledge.

TOPICAL ISSUE BRIEF | Evidence-Based and Promising Practices to Support Continuity of Learning for Students With Disabilities

Practices and Resources to Support Teachers

Page 9

Table 6. Evidence-Based and Promising Practices to Support Continuity of Learning in Adapting Delivery: Self-Regulation

Practice Name and Description	Example(s)	More Information
Self-regulation is a common challenge for students with disabilities. Self-regulation skills include habits such as organization and on-task behavior.[31] Self-regulated learning activities encourage self-reflection and goal setting and can be incorporated into other instructional approaches, including explicit instruction—and across asynchronous and synchronous modalities. Offering students devices, aids, or charts to assist them in learning to collect, chart, and display information about their behaviors (including focusing on tasks, positive self-talk, achieving goals) can help students develop independence in their learning.	Provide prompts, reminders, guides, rubrics, and checklists that focus on: • self-regulatory skills like reducing the frequency of outbursts due to frustration, and • increasing the length of on-task behaviors when distractions are likely. Provide adult and/or peer coaches that can model appropriate online behaviors. • Hold synchronous small-group sessions focused on modeling and invite peers to join. • Hold peers accountable through e-mails, calls, or chat box. Provide differentiated models, scaffolds, and feedback for the following skills: • Managing frustration • Seeking external emotional support • Developing internal controls and coping skills • Appropriately handling subject- or content-specific phobias and judgments of "natural" aptitude (e.g., "How can I improve on the areas I am struggling in?" rather than "I am not good at math") • Using real-life situations or simulations to demonstrate coping skills	[CAST UDL Guidelines: Provide Options for Self-Regulation](#) [IRIS Center Module: Helping Students Become Independent Learners](#) [National Center on Intensive Intervention: Self-Management Strategies](#)

TOPICAL ISSUE BRIEF | Evidence-Based and Promising Practices to Support Continuity of Learning for Students With Disabilities

Practices and Resources to Support Teachers

Page 10

Examples in Action

Heather Goodwin, Digital Learning Expert, Accreditation Lead Evaluator, and Special Education Specialist

Heather Goodwin has worked in the field of distance learning for over a decade. She encourages educators to leverage synchronous modalities to deliver SDI.

> *"Providing specially designed instruction can be done through a digital learning environment. Accessing video conferencing and various software applications (free or purchased by the local education agency [LEA]) allows teachers to adapt content, methods, and instructional delivery to address the unique needs of students. Many schools and teachers are using digitized curriculum solely. This alone does not allow for individualization nor does it meet the definition of specialized instruction. Instead, they need to ensure that live instructional components are available to provide special education service—that's the best way to best replicate brick and mortar, evidence-based practices."*

Tabitha Pacheco, Former Virtual Special Education Teacher for Students With Severe/Profound Disabilities

In the virtual environment, there are many ways for educators to create similarity to traditional school settings. Below is an encouraging tip and examples from Tabitha Pacheco, a former virtual teacher of students with severe/profound disabilities.

> *"Don't let the virtual environment limit you—if you could do it in your brick-and-mortar classroom, you can do it in your virtual class; create class jobs, schedules, reward systems, build a classroom community."*

Classroom Jobs

- Chat box greeter
- Attendance monitor
- Clearing whiteboards (if a platform offers this feature)

Reward Systems

- Create an online "bank account" system to provide rewards through an online token economy.

Peer Interaction

- Develop a peer mentoring system between students.

Data Collection

- Digitize your data collection methods.
- Record feedback to students and document student changes to submitted work samples over time.
- Utilize Google spreadsheets to monitor student actions (e.g., Did they attend a live session? Did they submit work samples?).
- Use OneNote, e-mail threads, or another digital note-taking system for anecdotal recording.

TOPICAL ISSUE BRIEF | Evidence-Based and Promising Practices to Support Continuity of Learning for Students With Disabilities

Practices and Resources to Support Teachers

Page 11

Practices for Early Childhood Practitioners

Although enrollment in traditional public schools is somewhat consistent across the grade levels from Kindergarten to 12th grade, enrollment trends vary significantly in virtual schools. Fewer students are enrolled in virtual schools in grades K–6 and more students are enrolled in grades 7–12.[32] Thus, the research has focused more on the experiences of students in middle and/or high school virtual settings than early childhood or elementary. Young children have different learning styles, needs, capacities, interests, and backgrounds. By recognizing these differences and using instructional approaches that are appropriate for each child, teachers and staff can help all children learn.[33] In a high-quality program, teachers engage children with learning strategies that are developmentally appropriate and use an appropriate curriculum to structure the learning experience.[34]

Developmentally Appropriate Practice

According to the National Association of the Education of Young Children, developmentally appropriate practice requires both meeting children where they are—which means that teachers must get to know them well—and enabling them to reach goals that are both challenging and achievable.[35] The overall goal of developmentally appropriate practice is to positively support early childhood education by incorporating knowledge about individual children and child development principles, along with knowledge of effective early learning practices and social and cultural appropriateness.

There is no "one-size-fits-all" approach to raising and teaching children. Each child comes with a unique set of experiences, abilities, needs, and backgrounds. Educating young children (ages 2–5) has its own unique challenges and opportunities, as young children learn and grow rapidly, both socially and emotionally.[36] Young children develop skills and coordination at different paces. As teachers move to online teaching, being aware of each child's specific needs and where they are developmentally can help them adjust their expectations and daily activities. To respond to the closing of schools and early care and education centers due to COVID-19 pandemic, many resources have emerged for virtual learning. However, for younger children, it may be more beneficial to find resources and activities online to share with parents or caregivers to use with their children.

The practices that follow align with the U.S. Department of Education, Institute of Education Sciences outcome categories for children's school readiness:

1. cognitive and communication competencies associated with school readiness (language, literacy, math, cognition, reasoning, and problem solving);

2. social-emotional development and behavior (social relationships, self-concept, self-regulation, cooperation, engagement and persistence, initiative, and curiosity); and

3. physical well-being and motor development (physical health, gross and fine motor skills, and functional abilities). [37]

TOPICAL ISSUE BRIEF | Evidence-Based and Promising Practices to Support Continuity of Learning for Students With Disabilities

Practices and Resources to Support Teachers

Page 12

Table 7. Evidence-Based and Promising Practices to Support Continuity of Learning for Early Childhood Providers

Practice	Example(s)	More Information
Early language and literacy: Provide multiple ways for young children to engage with words and texts (a) to promote early reading skills, such as interpreting pictures and symbols, letter recognition, sound knowledge, vocabulary, and sight word recognition.[38,39] This will help prepare them for stronger reading skills as they get older,[40,41] such as developing skills for decoding, oral reading fluency, reading comprehension, writing, and spelling.[42] Preliteracy practices are especially important for children who are most at risk for reading delays due to poverty and disabilities.[43]	Provide suggestions to parents or caregivers sheltering with the child for the children to see, hear, and explore throughout the day to build early literacy skills. Remind them that children think differently than adults, so taking time to answer their questions is important. Help them recall that children, including those with special needs, tire easily, so try to keep their interest but do not push too hard.[44] Record yourself reading. Consider pausing and turning the illustrations toward the camera. Remember to hold the illustration steady for a few seconds longer than you might when engaging a child face-to-face. Use electronic books (or e-story books) to share engaging stories virtually. Promote limited use of high-quality literacy apps and games on tablets and other electronic devices.	Accessible Games From PEEP and the Big Wide World Khan Academy Kids Reading Rockets Story Mentors Storyline Online

TOPICAL ISSUE BRIEF | Evidence-Based and Promising Practices to Support Continuity of Learning for Students With Disabilities

Practices and Resources to Support Teachers

Page 13

Practice	Example(s)	More Information
Early numeracy/early childhood mathematics: Help children learn to understand their world in terms of numbers and shapes, and begin to connect ideas and think logically.[45] Build an early understanding of math skills, such as understanding quantities, counting, and matching and sorting objects[46] through everyday routines and activities.[47,48]	Provide suggestions to parents or caregivers sheltering with the child for children to see, hear, and explore throughout the day to build early math skills. Remind them that children think differently than adults, so taking time to answer their questions is important. Help them recall that children, including those with special needs, tire easily, so try to keep their interest but do not push too hard.[49] On a video or through a virtual platform, conduct age-appropriate premath activities, such as the following: • Play with shape sorters: Count the number of sides, talk about the shape, and describe the colors. • Gather together objects, such as toys or pebbles; show them on the screen; and then count and sort them based on size, color, or shape. Or, point out the different sizes of the objects, and compare them with pictures of larger objects (i.e., ranging from small toys to cars and trucks to people big and small). Read children's books that rhyme, repeat, or have numbers in them. • Show images of numbers with the child and practice counting together. • Read stories that have number problems and stories. In the course of virtual conversations with children, to build reasoning skills, ask the children questions and give them time to think about the answer.	Teaching Math to Young Children Early Childhood: Where Learning Begins—Mathematics Help Your Child Develop Early Math Skills

TOPICAL ISSUE BRIEF | Evidence-Based and Promising Practices to Support Continuity of Learning for Students With Disabilities

Practices and Resources to Support Teachers

Page 14

Practice	Example(s)	More Information
Social relationships, interaction, and cooperation: Help young children develop socially by taking turns, playing together, helping friends and family, communicating about emotions, and learning to cooperate with others.[50]	Provide the following guidelines to parents or caregivers sheltering with the young child: • Provide age-appropriate toys and books so toddlers and preschoolers can explore their environment safely and independently.[51] • Offer children choices throughout the day, such as choosing toys, books, snacks, or activities. This allows children to feel engaged and in control. Teach children to share and take turns throughout the day. • Be aware of how much stimulation is comfortable for your child. Some children may need more play, stimulation, or attention, so figuring out the right balance can help keep children interested and engaged. When engaging virtually with a young child, identify and talk about emotions to help young children understand their own and others' feelings. You can play games where stuffed animals are fighting or practice how to share. Pretend play and reading stories can provide opportunities to discuss feelings and teach social skills.	[Accessible Games From PEEP and the Big Wide World](#) [Building Social Skills in Young Children](#) [Fostering Healthy Social & Emotional Development in Young Children: Tips for Early Childhood Teachers and Providers, from the U.S. Department of Education](#) [Incredible Years: Strategies to Build Social Interaction](#) [The Pyramid Model](#)
Emotional awareness: Help young children learn to understand their feelings and actions and those of other people, and how these feelings and actions affect themselves and others. Research has suggested a positive association between social and emotional skills and academic outcomes.[52,53]	When communicating with the young child virtually: • Encourage them to understand their feelings, which is the first step in managing them. • Give choices where possible, as children who take more responsibility for the outcome will feel more in control and able to cope. • Hold up pictures of faces that show emotions to teach children the names of feelings such as happy, sad, and angry. • When reading a story, ask children to imagine if they are one of the characters and then ask them about what they are feeling and why. Model or point families to online platforms that promote self-soothing strategies such as mindfulness by taking deep breaths to relax.	[Collaborative for Academic, Social, and Emotional Learning (CASEL)](#) [First Feelings: The Foundation of Healthy Development, Starting From Birth](#) [Fostering Healthy Social and Emotional Development in Young Children: Tips for Families, from the U.S. Department of Education](#) [Talking to Children About Coronavirus (COVID19)](#)

TOPICAL ISSUE BRIEF | Evidence-Based and Promising Practices to Support Continuity of Learning for Students With Disabilities

Practices and Resources to Support Teachers

Page 15

Practice	Example(s)	More Information
Self-regulation and cooperation: Provide structured environments, supportive relationships, and direct instruction to build self-regulation skills, which include effectively managing their thoughts, feelings, and behaviors; paying attention; planning; and following through with tasks.[54]	Suggest the following to parents or caregivers sheltering with the child: • Talk, read, and sing together every day, as young children learn by interacting.[55] • Provide warm and consistent care by smiling, laughing, and cuddling. • Promote active play, sensory exploration, and self-care exercises. • Implement relaxation, visualization, and breathing exercises. Try yoga or go outside for nature walks where you stop and listen for different sounds. • Children of all ages thrive when maintaining consistent, predictable routines so they know what to expect during the day, which increases their sense of security. Stick to a regular meal, naptime, and reading schedule.	Cosmic Kids Yoga Fostering Healthy Social & Emotional Development in Young Children: Tips for Early Childhood Teachers and Providers, from the U.S. Department of Education Getting Started with Mindfulness: A Toolkit for Early Childhood Organizations The Incredible Years: Materials on Self-Regulation The Pyramid Model Self-Regulation and Toxic Stress: Foundations for Understanding Self-Regulation From an Applied Developmental Perspective Talk, Read, and Sing Together Every Day! Tip Sheets for Families, Caregivers and Early Learning Educators

TOPICAL ISSUE BRIEF | Evidence-Based and Promising Practices to Support Continuity of Learning for Students With Disabilities

Practices and Resources to Support Teachers

Page 16

Practice	Example(s)	More Information
Motor skill development and functional abilities: Support development of physical, gross and fine motor skills, and functional abilities. Fine motor skills involve the movement of the smaller muscle groups in hands, fingers, and wrists. Gross motor skills involve the larger muscle groups, such as arms and legs. Functional abilities include self-help skills and behaviors, such as dressing, feeding, toileting, and organizational skills.[56] Developing these skills and abilities are important for a child's growth and independence.	Suggest the following for parents or caregivers sheltering with the child: • Build block towers or play with plastic brick toys. • Use coloring books or encourage scribbling on paper. • Do arts and crafts, such as finger painting or playing with clay. Use scissors to cut paper. • During meals, practice using a spoon and then a fork correctly. • Allow children to put on their jackets to learn how to use a zipper and eventually buttons. • Allow time for children to play, dance, run, skip, and jump.	Help Your Child Build Fine Motor Skills On the Move: The Power of Movement in Your Child's First Three Years
Positive teaching: Provide encouragement and set limits in a gentle way to help young children develop positive behaviors. This approach recognizes each child's individual needs and addresses typical challenges with empathy and respect.	Suggest the following for parents or caregivers sheltering with the child: • Provide age-appropriate guidelines and consistent limits to a child's behavior. • Show interest and respond with sensitivity to a child's cues and communications. • Focus on a child's positive behavior and provide praise when they learn a new skill, such as sharing, taking turns, or putting a toy away. If you can interact virtually with the child, reinforce praise for good behavior. • Create a special, safe space such as a "cozy corner" where children can go when they need a break to calm down and regain control of their feelings.[57]	Fostering Healthy Social & Emotional Development in Young Children: Tips for Early Childhood Teachers and Providers, from the U.S. Department of Education Positive Behavioral Interventions and Supports (PBIS) Responding to the Novel Coronavirus (COVID-19) Outbreak Through PBIS

TOPICAL ISSUE BRIEF | Evidence-Based and Promising Practices to Support Continuity of Learning for Students With Disabilities

Practices and Resources to Support Teachers

Page 17

Example in Action

Emily Hassinger, Lead Preschool Teacher for 4-Year-Olds

Emily Hassinger and her co-teacher, Julie Sutton, have worked together in a 4-year-old preschool classroom for 6 years. One of her keys to maintaining growth in a distance environment is to continue to facilitate and encourage young children to explore, like they do in their play-based preschool classroom. They share the following tips for engaging with preschool-age children from a distance.

> *"When we decided to close the preschool for the rest of the school year, we created bags of resources, including books, art supplies, and song sheets for parents to retrieve through a carpool line process (minimizing contact). We conduct our circle-time lessons each day through a video platform and send out to our parents to show their children. We sing our morning song and do our calendar update, just like we would in our classroom. We also walk through the day's experiment, telling families how they can recreate them at home. We have also recorded parents, siblings, and our specials teachers reading stories and sharing songs, and provided these to our children to keep them connected. We even sent postcards to our children's homes to stay in touch with them. We always let them know that we are here to support their growth and that we can't wait to hug them in person again soon."*

TOPICAL ISSUE BRIEF | Evidence-Based and Promising Practices to Support Continuity of Learning for Students With Disabilities

Practices and Resources to Support Teachers

Page 18

Additional Resources

[10 Strategies for Online Learning During a Coronavirus Outbreak](#) This report from the International Society for Technology in Education's (ISTE's) professional learning networks identifies key practices for successful online learning.

[An Educator's Guide to Virtual Learning: 4 Actions to Support Students With Disabilities and Their Families](#) This resource provides a brief list of four things that teachers should know, and actions they can take, to guide children's learning in a virtual setting, including links to additional resources.

[Behavior Strategies to Support Intensifying Interventions](#) These behavior strategies from the National Center on Intensive Intervention (NCII), organized around antecedent modification, self-management, and reinforcement strategies, can be used to support students with primary academic deficits and challenging behaviors.

[Best Practices for Educating Online](#) This document from the Council for Exceptional Children (CEC) lays out steps for preparing and executing an online course that can meet the needs of students with disabilities.

[Best Practices in K–12 Online and Hybrid Courses](#) This report from Hanover Research outlines best practice approaches in the development and implementation of high quality online and hybrid courses for K–12 students. It includes four profiles of exemplary district-level online and hybrid programs and details the elements of the online learning options offered to secondary students.

[Better Lesson Guide to Starting with Distance Learning](#) This guide provides tips and resources in response to the top eight questions you should consider before facilitating online learning.

[The Dos and Don'ts of Distance Learning in a Pandemic](#) To help schools and school systems navigate the sudden transition to distance learning, FutureEd director Thomas Toch explored the new education landscape with Brad Rathgeber, the head of school and chief executive of One Schoolhouse, a highly regarded, nonprofit online school that partners with 160 public and private schools worldwide to supplement their school-based instruction and to provide professional development for faculty members working in the online space.

[Early Learning and Educational Technology Policy Brief](#) Recognizing the growth of technology use in early learning settings, the U.S. Department of Education and U.S. Department of Health and Human Services collaborated in the development of the Early Learning and Educational Technology Policy Brief to promote developmentally appropriate use of technology in homes and early learning settings.

[Eight Ways to Build Blended Learning Class Culture](#) This article details eight strategies for building and maintaining a community of learners in a virtual environment.

[Equity Matters 2016: Digital & Online Learning for Students With Disabilities](#) This annual report focuses on promising practices for addressing the needs of students with disabilities in full-time virtual, blended, and supplemental online settings.

TOPICAL ISSUE BRIEF | Evidence-Based and Promising Practices to Support Continuity of Learning for Students With Disabilities

Practices and Resources to Support Teachers

Page 19

Guiding Principles for Use of Technology With Early Learners This document from the U.S. Department of Education describes how thoughtful use of technology by parents and early educators can engage children in key skills such as play, self-expression, and computational thinking, which will support later success across all academic disciplines and help maintain young children's natural curiosity.

Integrating Technology Into Early Learning: Checklist This checklist, offered in Chinese, Spanish, and English, provides early childhood educators with practical information about integrating educational technology in their classrooms, and it can be adapted for out-of-class use.

Khan Academy This website includes daily schedules, quizzes, and other tools and resources to prepare students and families for remote and virtual learning. Experts are available for office hours to answer questions through virtual mediums.

The Learning Innovation Catalyst This website features an online learning assessment and other tools to support remote learning that are grounded in research.

Literacy Strategies to Support Intensifying Interventions These lessons from the National Center on Intensive Intervention (NCII) cover phonemic awareness, alphabetic principal or phonics, fluency, vocabulary, and comprehension and provide examples of brief instructional routines that include sample scripts, activities, and necessary materials to complete the activities.

Making Everyday Curriculum Materials Accessible for All Learners This article includes five modules that show ways of making online learning more accessible so that everyone has a fair opportunity to learn.

Mathematics Strategies to Support Intensifying Interventions These lessons and activities from the National Center on Intensive Intervention (NCII) are organized around six mathematics skill areas and include descriptions of sample lessons, activities, worksheets, and supplemental materials. Videos illustrating the concepts covered in the lessons are included.

Online Teaching Support Group This virtual professional learning community from the Mathematics Leadership Programs offers teachers and administrators support as they transition to online learning. The free collection includes live online training as well as archived videos and other support as needed.

Sample e-Service Learning Log This spreadsheet can serve as a model for tracking learning and support provided to students with special learning needs in an e-learning setting.

Scaffolding Learning in the Online Classroom This brief article explains instructional scaffolding and how it can be implemented in a virtual learning environment.

Technology That Supports Early Learning—Three Examples This website provides guidance on applying the principles of development and learning when considering if, how, and when to use technology and new media with young children.

Using Video for Flipped Learning Environments This site explains how to create learning videos so that that students can work at their own pace, with personalized embedded supports and checks for understanding

Virtual Toolkit From OSEP Collaboration for Effective Educator Development, Accountability, and Reform The toolkit includes a number of suggested platforms, tips, and resources to ease the transition to online instruction.

TOPICAL ISSUE BRIEF | Evidence-Based and Promising Practices to Support Continuity of Learning for Students With Disabilities

Practices and Resources to Support Teachers

Page 20

References

[1] Education Week (2020, April 13). *Map: Coronavirus and school closures*. Retrieved from
https://www.edweek.org/ew/section/multimedia/map-coronavirus-and-school-closures.html

[2] Spitler, C., Repetto, J., & Cavanaugh, C. (2015). Investigation of a special education program in a public cyber charter school. *American Journal of Distance Education, 27*(1), 4–15.

[3] Digital Learning Collaborative. (2019). *Snapshot 2019: A review of K–12 online, blended, and digital learning*. Durango, CO: Author. Retrieved from
https://static1.squarespace.com/static/59381b9a17bffc68bf625df4/t/5cae3c05652dea4d690f5315/1554922508490/DLC-KP-Snapshot2019_040819.pdf

[4] Digital Learning Collaborative. (2019). *Snapshot 2019: A review of K–12 online, blended, and digital learning*. Durango, CO: Author. Retrieved from
https://static1.squarespace.com/static/59381b9a17bffc68bf625df4/t/5cae3c05652dea4d690f5315/1554922508490/DLC-KP-Snapshot2019_040819.pdf

[5] Greer, D. L., Smith, S. J., & Basham, J. D. (2014). Practitioners' perceptions of their knowledge, skills and competencies in online teaching of students with and without disabilities. *JAASEP Spring-Summer.*

[6] Molnar, A., Miron, G., Elgeberi, N., Barbour, M. K., Huerta, L., Shafer, S. R., & Rice, J. K. (2019). *Virtual schools in the U.S. 2019*. Boulder, CO: National Education Policy Center. Retrieved from
http://nepc.colorado.edu/publication/virtual-schools-annual-2019

[7] Molnar, A., Miron, G., Elgeberi, N., Barbour, M. K., Huerta, L., Shafer, S. R., & Rice, J. K. (2019). *Virtual schools in the U.S. 2019*. Boulder, CO: National Education Policy Center. Retrieved from
http://nepc.colorado.edu/publication/virtual-schools-annual-2019

[8] Clifford, S. E. (2018). *The implementation of the Individuals with Disabilities Education Act in a virtual public charter school*. University of New Orleans Theses and Dissertations 2449. Retrieved from
https://scholarworks.uno.edu/td/2449

[9] Vasquez, E., & Straub, C. (2012). Online instruction for K–12 special education: A review of the empirical literature. *Journal of Special Education*, *27*(3), 31–40.

[10] Basham, J. D., Stahl, S., & Mellard, D. F. (2015). Understanding transformative change. In J. D. Basham, S. Stahl, K. Ortiz, M. F. Rice, & S. Smith (Eds.), *Equity matters: Digital & online learning for students with disabilities*. Lawrence, KS: Center on Online Learning and Students with Disabilities.

[11] Basham, J. D., Ortiz, K. R., Stahl, W., Rice, M. F., & Mellard, D. F. (2015). State and territory policy scan for online learning and students with disabilities. In J. D. Basham, S. Stahl, K. Ortiz, M. F. Rice, & S. Smith (Eds.), *Equity matters: Digital & online learning for students with disabilities*. Lawrence, KS: Center on Online Learning and Students with Disabilities.

[12] Basham, J. D., Stahl, S., & Mellard, D. F. Understanding transformative change. In J. D. Basham, S. Stahl, K. Ortiz, M. F. Rice, & S. Smith (Eds.), *Equity matters: Digital & online learning for students with disabilities*. Lawrence, KS: Center on Online Learning and Students with Disabilities.

[13] U.S. Department of Education, Office of Educational Technology. (2017). *Reimagining the role of technology in education: 2017 National Education Technology Plan update*. Washington, DC: Author. Retrieved from https://tech.ed.gov/files/2017/01/NETP17.pdf

TOPICAL ISSUE BRIEF | Evidence-Based and Promising Practices to Support Continuity of Learning for Students With Disabilities

Practices and Resources to Support Teachers

Page 21

14 Rose, R., & Blomeyer, R. (2007). *Access and equity in online classes and virtual schools.* Vienna, VA: International Association for K–12 Online Learning. Retrieved from https://aurora-institute.org/wp-content/uploads/iNACOL_AccessEquity_2007.pdf

15 Rose, R., & Blomeyer, R. (2007). *Access and equity in online classes and virtual schools.* Vienna, VA: International Association for K–12 Online Learning. Retrieved from https://aurora-institute.org/wp-content/uploads/iNACOL_AccessEquity_2007.pdf

16 Terrazas-Arellanes, F. E., Gallard, M., A. J., Strycker, L. A., & Walden, E. D. (2018). Impact of interactive online units on learning science among students with learning disabilities and English learners. *International Journal of Science Education, 40*(5), 498–518.

17 Martin, F., Parker, M. A., & Deale, D. F. (2012). Examining interactivity in synchronous virtual classrooms. *The International Review of Research in Open and Distance Learning, 13*(3), 227–261.

18 Corn, J., Tagsold, J. T., & Argueta, R. (2012). Students with special needs and 1:1 computing: A teacher's perspective. *Journal of Research in Special Education Needs (JORSEN), 12*(4), 217–223.

19 IRIS Center. (n.d.). *Page 1: What is instructional scaffolding?* Retrieved from https://iris.peabody.vanderbilt.edu/module/sca/cresource/q1/p01/#content

20 Sekeres, D. C., & Castek, J. (2016). Collaborative online inquiry: Exploring students' skills in locating, reading, and communicating information. *Journal of Interactive Online Learning, 14*(2), 58–79.

21 IRIS Center. (n.d.). *Page 11: Accommodations.* Retrieved from https://iris.peabody.vanderbilt.edu/module/agc/cresource/q2/p11/#content

22 Terrazas-Arellanes, F. E., Knox, C., & Rivas, C. (2013). Collaborative online projects for English language learners in science. *Cultural Studies of Science Education, 8*(4), 953–971.

23 Sekeres, D. C., & Castek, J. (2016). Collaborative online inquiry: Exploring students' skills in locating, reading, and communicating information. *Journal of Interactive Online Learning, 14*(2), 58–79.

24 Sekeres, D. C., & Castek, J. (2016). Collaborative online inquiry: Exploring students' skills in locating, reading, and communicating information. *Journal of Interactive Online Learning, 14*(2), 58–79.

25 Corn, J., Tagsold, J. T., & Argueta, R. (2012). Students with special needs and 1:1 computing: a teacher's perspective. *Journal of Research in Special Education Needs (JORSEN), 12*(4), 217–223.

26 Terrazas-Arellanes, F. E., Knox, C., & Rivas, C. (2013). Collaborative online projects for English language learners in science. *Cultural Studies of Science Education, 8*(4), 953–971.

27 IRIS Center. (n.d.). *Page 12: Modifications.* Retrieved from https://iris.peabody.vanderbilt.edu/module/agc/cresource/q2/p12/#content

28 CAST. (2018). *The UDL guidelines*. Retrieved from http://udlguidelines.cast.org

29 Center on Positive Behavioral Intervention and Supports. (2019). *Supporting families with PBIS at home.* Washington, DC: U.S. Department of Education. Retrieved from https://assets-global.website-files.com/5d3725188825e071f1670246/5e83b41b7df0210d47588d12_Supporting%20Families%20with%20PBIS%20at%20Home%20FINAL.pdf

TOPICAL ISSUE BRIEF | Evidence-Based and Promising Practices to Support Continuity of Learning for Students With Disabilities

Practices and Resources to Support Teachers

Page 22

[30] Archer, A. L., & Hughes, C. A. (2020). Effective and efficient teaching. In K. R. Harris & S. Graham, *What works for special needs learners series*. New York, NY: Guilford Press.

[31] Ramdass, D., & Zimmerman, B. J. (2011). Developing self-regulation skills: The important role of homework. *Journal of Advanced Academics, 22*(2), 194–218.

[32] Molnar, A., Miron, G., Elgeberi, N., Barbour, M. K., Huerta, L., Shafer, S. R., & Rice, J. K. (2019). *Virtual schools in the U.S.* 2019. Boulder, CO: National Education Policy Center. Retrieved from http://nepc.colorado.edu/publication/virtual-schools-annual-2019

[33] National Association for the Education of Young Children. (2009). *Developmentally appropriate practice in early childhood programs serving children from birth to age 8*. Washington, DC: Author. Retrieved from https://www.naeyc.org/sites/default/files/globally-shared/downloads/PDFs/resources/position-statements/PSDAP.pdf

[34] Mashburn, A. J., Pianta, R. C., Hamre, B. K., Downer, J. T., Barbarin, O. A., Bryant, D., & Burchinal, M. (2008). Measures of classroom quality in pre-kindergarten and children's development of academic, language, and social skills. *Child Development*, 79(3), 732–749.

[35] National Association for the Education of Young Children. (2009). *Developmentally appropriate practice in early childhood programs serving children from birth to age 8*. Washington, DC: Author. Retrieved from https://www.naeyc.org/sites/default/files/globally-shared/downloads/PDFs/resources/position-statements/PSDAP.pdf

[36] Shonkoff, J. P., & Phillips, D. A. (2000). *From neurons to neighborhoods: The science of early childhood development.* Washington, DC: National Academy Press.

[37] U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, What Works Clearinghouse. (2020, April 1). *Early childhood education for children with disabilities evidence review protocol*. Retrieved from https://ies.ed.gov/ncee/wwc/Document/30

[38] Moody, A. K. (2010). Using electronic books in the classroom to enhance emergent literacy skills in young children. *Journal of Literacy and Technology, 11*(4), 22–52.

[39] Barr, R., McClure, E., & Parlakian, R. (2018). *What the research says about the impact of media on children aged 0-3 years old*. Washington, DC: ZERO TO THREE. Retrieved from https://www.zerotothree.org/resources/2536-screen-sense-what-the-research-says-about-the-impact-of-media-on-children-aged-0-3-years-old

[40] U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, What Works Clearinghouse. (2020, April 1). *Improving reading comprehension in kindergarten through 3rd grade*. Retrieved from https://files.eric.ed.gov/fulltext/ED512029.pdf

[41] Chai, Z., Vail, C. O., & Ayres, K. M. (2015). Using an iPad application to promote early literacy development in young children with disabilities. *Journal of Special Education, 48*(4), 268–278.

[42] National Institute for Literacy. (2008). *Developing early literacy: Report of the National Early Literacy Panel*. Jessup, MD: Author. Retrieved from https://lincs.ed.gov/publications/pdf/NELPReport09.pdf

TOPICAL ISSUE BRIEF | Evidence-Based and Promising Practices to Support Continuity of Learning for Students With Disabilities

Practices and Resources to Support Teachers

Page 23

[43] Barnett, W. S., Brown, K., & Shore, R. (2004). *The universal vs. targeted debate: Should the United States have preschool for all?* New York, NY: The National Institute for Early Education Research (NIEER). Retrieved from http://nieer.org/policy-issue/policy-brief-the-universal-vs-targeted-debate-should-the-united-states-have-preschool-for-all

[44] Fromboluti, C. S., & Rinck, N. (1999). *Early childhood: Where learning begins: Mathematics*. Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement, National Institute on Early Childhood Development and Education. Retrieved from https://www2.ed.gov/pubs/EarlyMath/title.html

[45] Baroody, A. (2010, July). Fostering early numeracy in preschool and kindergarten. In *Encyclopedia of Early Childhood Development.* Retrieved from http://www.child-encyclopedia.com/sites/default/files/textes-experts/en/784/fostering-early-numeracy-in-preschool-and-kindergarten.pdf

[46] ZERO TO THREE. (2020). *Help your child develop early math skills*. Retrieved from https://www.zerotothree.org/resources/299-help-your-child-develop-early-math-skills

[47] Frye, D., Baroody, A. J., Burchinal, M., Carver, S. M., Jordan, N. C., & McDowell, J. (2013). *Teaching math to young children: A practice guide* (NCEE 2014-4005). Washington, DC: National Center for Education Evaluation and Regional Assistance (NCEE), Institute of Education Sciences, U.S. Department of Education. Retrieved from https://ies.ed.gov/ncee/wwc/Docs/PracticeGuide/early_math_pg_111313.pdf

[48] National Association for the Education of Young Children (NAEYC) and National Council for Teachers of Mathematics (NCTM). (2010). *Early childhood mathematics: Promoting good beginnings.* Retrieved from https://www.naeyc.org/sites/default/files/globally-shared/downloads/PDFs/resources/position-statements/psmath.pdf

[49] Fromboluti, C. S., & Rinck, N. (1999). Early childhood: Where learning begins. U.S. Department of Education, Office of Educational Research and Improvement, National Institute on Early Childhood Development and Education. Retrieved from https://www2.ed.gov/pubs/EarlyMath/title.html

[50] National Association for the Education of Young Children. (2009). *Developmentally appropriate practice in early childhood programs serving children from birth to age 8*. Retrieved from http://www.naeyc.org/positionstatements/dap

[51] Dominguez, X., Vitiello, V. E., Maier, M. F., & Greenfield, D. B. (2010). A longitudinal examination of young children's learning behavior: Child-level and classroom-level predictors of change throughout the preschool year. *School Psychology Review, 39*(1), 29–47.

[52] Durlak, J. A., Weissberg, R. P., Dymnicki, A. B., Taylor, R. D., & Schellinger, K. B. (2011). The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions. *Child Development*, *82*(1), 405–432.

[53] U.S. Department of Education, Institute of Education Sciences, Regional Educational Laboratory Program. (2020, April 1). *Social and Emotional Learning Research Alliance*. Retrieved from https://ies.ed.gov/ncee/edlabs/regions/northeast/SocialEmotional

[54] Rosanbalm, K. D., & Murray, D. W. (2017). *Promoting self-regulation in early childhood: A practice brief* (OPRE Brief #2017-79). Washington, DC: Office of Planning, Research, and Evaluation, Administration for Children and Families, US. Department of Health and Human Services.

TOPICAL ISSUE BRIEF | Evidence-Based and Promising Practices to Support Continuity of Learning for Students With Disabilities

Practices and Resources to Support Teachers

Page 24

[55] National Scientific Council on the Developing Child. (2004). *Young children develop in an environment of relationships. Working paper no. 1*. Retrieved from http://www.developingchild.net

[56] What Works Clearinghouse. (2020, April 1). *WWC evidence review protocol for early childhood education interventions for children with disabilities, version 2.0.* Washington, DC: Author. Retrieved from https://ies.ed.gov/ncee/wwc/Docs/ReferenceResources/eced_protocol_v2.pdf

[57] ZERO TO THREE. (2020, April 1). *Are time-outs helpful or harmful to young children?* Retrieved from https://www.zerotothree.org/resources/324-are-time-outs-helpful-or-harmful-to-young-children

TOPICAL ISSUE BRIEF | Evidence-Based and Promising Practices to Support Continuity of Learning for Students With Disabilities

Practices and Resources to Support Teachers

Page 25

11430_04/20

TOPICAL ISSUE BRIEF | Evidence-Based and Promising Practices to Support Continuity of Learning for Students With Disabilities

Practices and Resources to Support Teachers

Page 26