Assistive Technology and Parent Support

Module 4

Parking Lot

Can a person who is blind have Dyslexia?

What about languages like Mandarin who have a visual writing system?

How could the Wilson curriculum be adapted for students in Special Education.

Whole language versus Science of Reading?

Dyslexia and deafness. Implications for students who are Sign users?

National UNIVERSITY

Agenda

- Assistive technology
- Supporting Parents

Literacy instruction and support planning tool for students with intellectual disabilities

Figure 1. Literacy Instruction and Support Planning Tool

Directions: Review Tips 1 and 2 (Section A). Use the Discussion Points to faciliate discussions. Complete Sections C through F. Then, review Tips 3 through 10 (Section B) and use the additional Discussion Points to focus conversation around planning appropriate Specially Designed Instruction and supports to increase the student's reading abilities and access to literature.

	Tips	Discussion Points
Section A: Focus on instructional planning	1. Keep big picture goals in mind as you plan.	☐ Consider broad goals for student over next few years. ☐ Discuss post-secondary goals. ☐ Review alignment of reading goals with broader goals. ☐ Consider instructional balance between learning to read and functional reading. ☐ Discuss ways to incorporate student's interests and priorities into reading instruction.
	2. Ensure you have a clear picture of the student's current level of functioning and set meaningful, measurable goals.	☐ Summarize student's current strengths in reading. ☐ Consider next areas of instructional focus. ☐ Develop measurable, meaningful goals for each targeted skill.

Section B: Focus on instructional delivery	3. Provide explicit, systematic reading instruction.	☐ Review the level of explicit and systematic instruction in reading program. ☐ Consider possible adaptations. ☐ Review need for possible curriculum supplements.
	4. Provide instruction with sufficient intensity to accomplish goals.	☐ Consider the alignment between instructional intensity and ability to obtain intended outcomes. ☐ Consider whether plan includes a sufficient amount of direct instruction from a highly qualified instructor. ☐ Discuss potential changes needed to obtain outcomes.
	5. Seek out professional development opportunities to deepen understanding of the complex process of learning to read.	☐ Review professional development needs to ensure delivery of high quality reading instruction. ☐ Discuss available PD opportunities. ☐ Outline steps necessary to ensure PD is obtained.
	6. Remember that language abilities are the underlying foundation for reading skills.	☐ Consider student's language abilities in the planning of reading instruction. ☐ Consult with SLP on reading instruction. ☐ Review alignment of SLP services and reading goals. ☐ Consult with teachers of ESL or bilingual programs if needed.
	7. Scaffold working memory with images, objects, letters, and words.	☐ Consider possible working memory deficits. ☐ Review need for instructional scaffolds to support deficits. ☐ Discuss strategies to make instruction more visual or concrete.
	8. Target specific parts of a scope-and-sequence to focus instruction.	☐ Evaluate the clarity of the reading program's scope-and-sequence. ☐ Plan how instruction will be designed around the scope-and-sequence. ☐ Determine how the student will progress through the scope-and-sequence.
	9. Use data to guide instruction and adaptation.	☐ Outline a data collection plan to allow the IEP team to evaluate the student's progress. ☐ Plan for sharing data with school staff, parents, and the student (when appropriate). ☐ Plan for graphing and analyzing data. ☐ Consider if measures being used are sensitive to small increments of student improvement.
	10. Involve service providers and family members.	☐ Discuss supplemental services (e.g., assistive technology specialists, behavior specialists) and alignment to support reading instruction. ☐ Plan for family involvement to increase access to literature and practice mastered skills at home.

Literacy Instruction and Support Planning Tool (p.2)

Section C: Instructional emphasis: Review Tip #1. Select a level that indicates the balance between functional reading and learning how to read for the student.

Section D: Student interests: List interests and personal goals related to reading instruction.

- ☐ 5 = Primarily functional, minimal how to
- ☐ 4 = Majority functional, moderate how to
- ☐ 3 = Balance between functional and how to
- ☐ 2 = Majority how to, moderate functional
- ☐ 1 = Primarily how to, minimal functional

Across all levels: Access to age-appropriate literature (narrative and informational) through read-alouds and independent text reading

'Functional reading' focus

'How to read' focus

1.

2.

3.

4.

5.

Section E: Instructional priorities, supports, and access opportunities: Review Tip #2. Rank the need to prioritize each of the following when developing reading goals and instructional plans for the student.

Increasing Independence as a Reader

Instructional priorities for reading instruction	Priority level	Opportunities to apply & generalize skills	Priority level
Phonemic awareness (Increasing student's ability to hear and manipulate sounds in spoken language.)	1 2 3 4 5	**Text applications** (Instruction and support is needed for generalization of reading skills to novel texts.)	1 2 3 4 5
Phonics (Increasing student's knowledge of sound-symbol correspondences.)	1 2 3 4 5	**Functional activities** (Instruction and support is needed for generalization of reading skills into functional activities [e.g., menus, newspapers, weather reports, directions].)	1 2 3 4 5
Comprehension (Increasing student's ability to understand independently read texts.)	1 2 3 4 5		
Vocabulary (Increasing student's knowledge of written words and ability to determine meanings of unknown written words.)	1 2 3 4 5	**Writing** (Instruction and support is needed to extend generalization of reading skills into writing, including options to select pictures, phrases, etc. for students who are not yet writing.)	1 2 3 4 5
Fluency (Increasing student's ability to read text with appropriate pacing, accuracy, and prosody.)	1 2 3 4 5		

Increasing Access to Literature

Key   **1** = Not a priority at this time. **2** = Low priority. **3** = Moderate priority. **4** = High priority. **5** = Very high priority.

Instructional priorities to increase access to literature	Priority level	Opportunities to access literature	Priority level
Task analysis for read alouds (Instructors need to systematically plan instruction to support the student's ability to benefit from texts that are read aloud.)	1 2 3 4 5	**Adapted books** (There is a need to increase the quantity and/or quality of adapted texts to support learning. Additionally, instruction may be needed to support student's use of adapted texts.)	1 2 3 4 5
Text awareness (Instruction is needed to increase student's awareness of text features during read alouds [e.g., student points to key words during read aloud.)	1 2 3 4 5	**Time for literacy** (There is a need to increase the amount of time, both during and outside of school, the student spends engaged with literature, including texts that are read aloud or read independently.)	1 2 3 4 5
Vocabulary (Instruction is needed to increase student's understanding of words during read alouds.)	1 2 3 4 5		
Listening comprehension (Instruction is needed to increase student's ability to apply grade-level aligned reading comprehension skills to texts that are read aloud [e.g., sequencing events, identifying main idea].)	1 2 3 4 5	**Readers** (There is a need for increasing the available quantity and/or quality of people who can read texts aloud or offer reading support, including peers, family members, and school staff.)	1 2 3 4 5
		Technology access (There is a need to increase the quantity and/or quality of technology supports that could enhance student's access to texts, including computers, tablets, smart phones. Additional instruction may be needed to support student's use of technology to access texts.)	1 2 3 4 5

Assistive Technology

Assistive Technology

Assistive technology device means any item, piece of equipment, or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve the functional capabilities of a child with a disability. The term does not include a medical device that is surgically implanted, or the replacement of such device.

California Education Code 56020.5.

Assistive Technology (AT) Benefits

- It can eliminate barriers to learning and help a student become more productive and successful.

- It can help a student to keep up with the curriculum, read grade-level text independently, and work around the challenges of dyslexia.

- It helps the student to focus on strengths not challenges.

- It can reduce the amount of time a student spends on schoolwork which may build their confidence.

California Dyslexia Guidelines p. 76

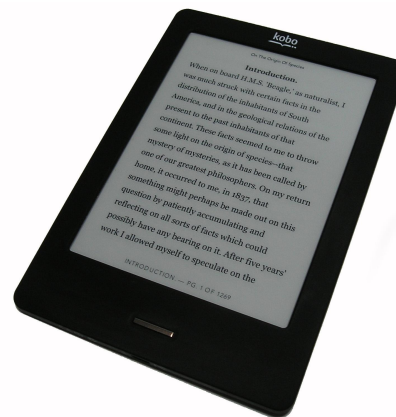# Types of Assistive Technology

Low-Tech:

- Pencil grip
- Reading ruler
- Slant board
- Adapted paper with raised lines, wide lines
- highlighters
- adaptive pencil
- dictionaries
- word banks
- graphic organizers

Types of Assistive Technology

High Tech:
- Computers
- Software
- E-books
- Chromebooks [7 Chrome Apps and Extensions for Writing](#) [7 Chrome Apps and Extensions for Reading](#)

Assistive Technology for Reading

- Text to Speech Speech (TTS)-lets kids see text and hear it read aloud at the same time. [Voice Dream Reader for mobile devices](), [Natural Reader]()
- Audiobooks and digital TTS books allows kids to hear books read aloud. [Learning Ally]() [Epic]() [Bookshare]()
- Graphic Organizers

[Assistive Technology for Reading]()
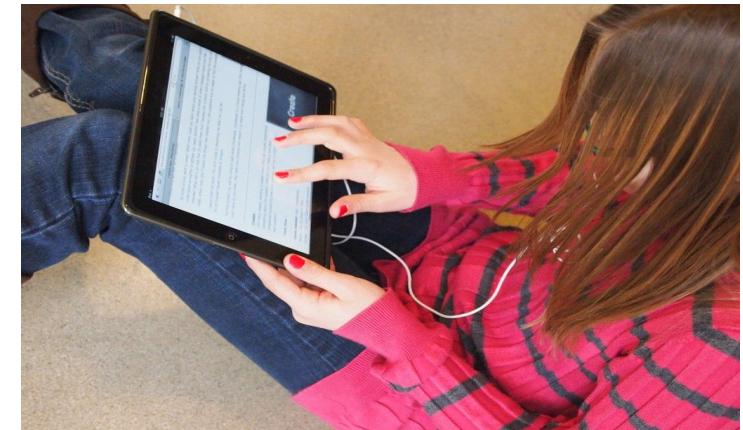
Assistive Technology for Reading

- Optical character recognition (OCR) reads aloud text from images and pictures. [How OCR Tools can help students.](#)
- Annotation tools let kids take notes and write comments while reading [Word Tune](#)
- Accessibility controls on computers allow students to control how text is displayed.

[Assistive Technology for Reading](#)
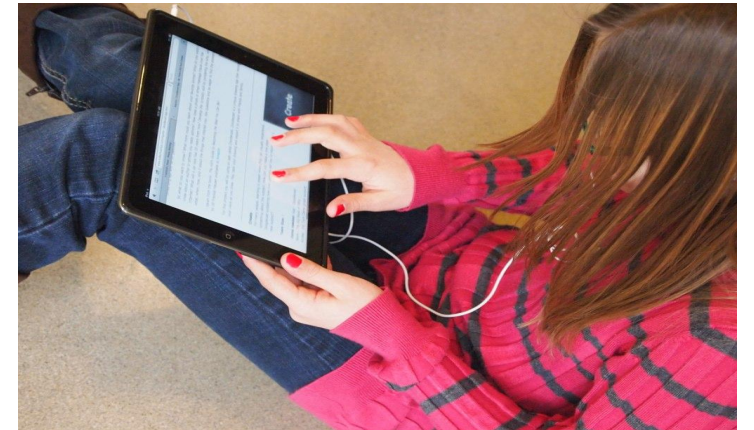
[Epic for Educators](#)

Accessibility tools on Computers
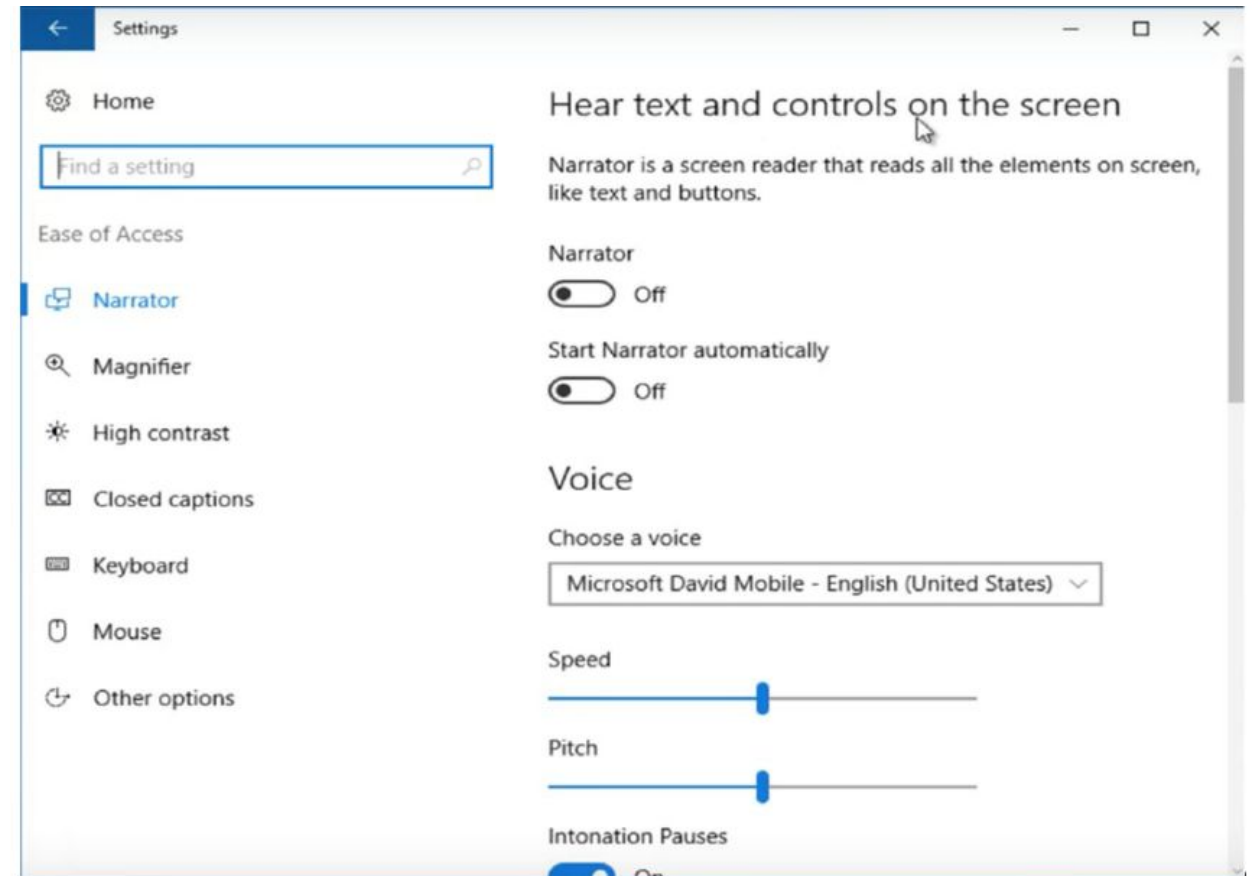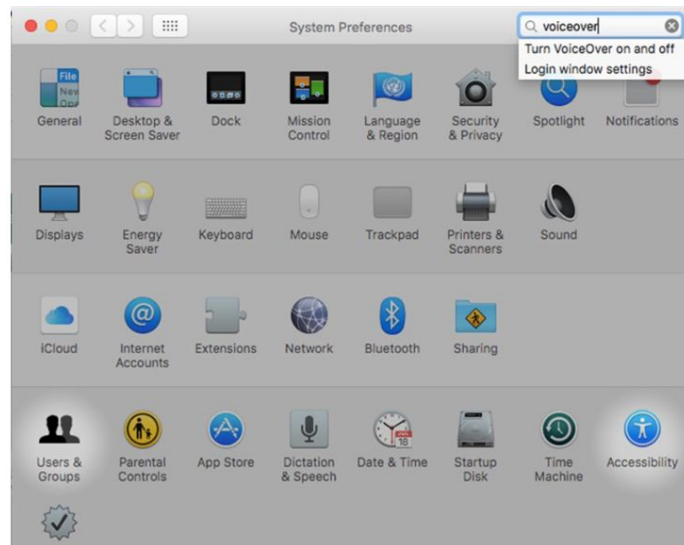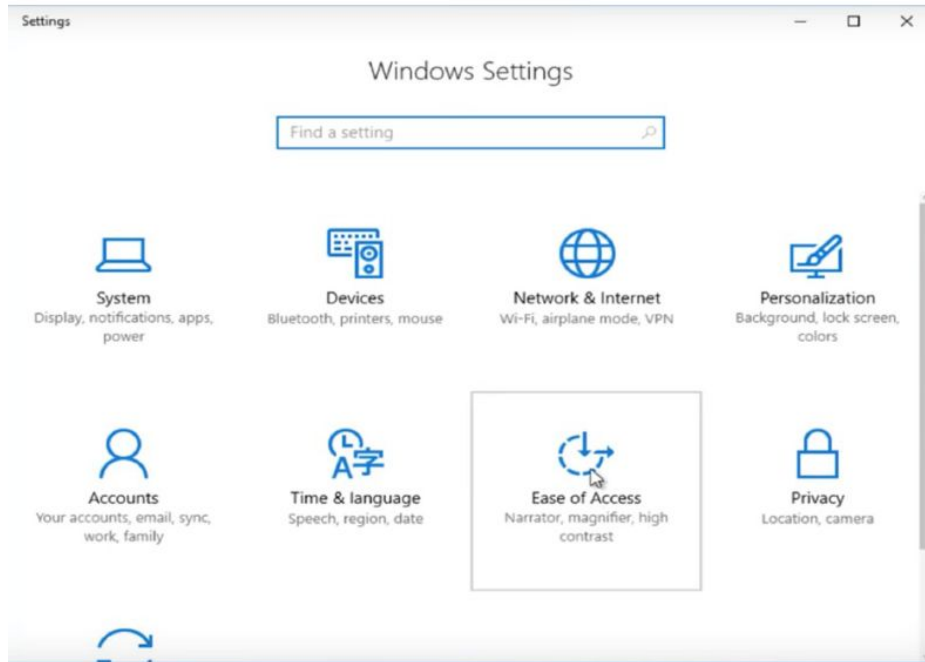
Dawson, K., Antonenko, P., Lane, H., & Zhu, J. (2019). Assistive Technologies to Support Students With Dyslexia. Teaching Exceptional Children, 51(3), 226–239. https://doi.org/10.1177/0040059918794027

Assistive Technology for Writing

- Keyboards and touchscreens can also help kids who struggle with handwriting
- Word prediction suggests correct spellings of words after only a few letters are typed.
- Spell-check and grammar check are available on most word processors.

Assistive Technology for Writing
Software programs for writing

Assistive Technology for Writing

- Graphic organizers are visual tools that can help to break down ideas and projects into smaller parts.
- Dictionaries and thesauri can help kids who struggle with written expression to define a word or find the right one.
- Speech to Text allows student to speak into a device that writes for them.Speech to Text tools

Assistive Technology for Writing
Software programs for writing

Applications for Writing and Spelling

- Handwriting tools can help kids who struggle to write by hand.
- Dictation (speech-to-text) allows kids to write by using their voice.

[Free online assistive technology tools to help with reading, writing and math](#)

Tips for Making Assistive Technology Successful

- Attend any trainings in your district about Assistive Technology
- Learn about AT devices and use them yourself to gain a better understanding of them.
- Talk to your students about their challenges in reading and writing and share possible AT solutions. If students are too young, speak to their parents.
- Let students have a role in selecting the tools to use, let them tell you what they liked and didn't like about the AT.
- Identify an adequate amount of time (likely several weeks) for students to learn the AT, and practice using it.

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Tips for Making Assistive Technology Successful

- Meet with student at end of scheduled time to decide if the AT is worth keeping, make modifications, or discontinue it.
- Observe your students and ask them how they like it, and take data on use with or without the AT.
- Make the AT accessible to other students in your class when possible.
- Allow students to be AT experts and help others
- Include parents and guardians in the process to ensure selected AT is available at home and school.
- Explore accessibility tools that are available on CAASP and have students practice using them.

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Purpose and Importance of Assessment Accessibility

Equal opportunity for students to demonstrate learning
- during instruction
- on classroom assessments
- on Smarter Balanced assessments
  - summative
  - interim

NOT JUST FOR TESTING!

UNIVERSAL TOOLS		DESIGNATED SUPPORTS		ACCOMMODATIONS	
EMBEDDED		**EMBEDDED**		**EMBEDDED**	
Breaks Calculator Digital notepad English Dictionary English glossary Expandable passages Global notes Highlighter	Keyboard Navigation Line reader Mark for review Math tools Spell check Strikethrough Thesaurus Writing tools Zoom	Color contrast Illustration Glossaries Masking Mouse pointer Streamline Text-to-speech in Spanish	Translated test directions Translations (glossary) Translations (dual language) Turn off any Universal Tools	American sign language Braille Braille transcript	Closed captioning Speech-to-text Text-to-speech
NON-EMBEDDED		**NON-EMBEDDED**		**NON-EMBEDDED**	
Breaks English Dictionary	Scratch paper Thesaurus	Ampification Bilingual Dictionary Color contrast Color overlays Illustration Glossaries Magnification Medical supports Noise buffers	Read aloud Read aloud in Spanish Scribe Separate setting Simplified test directions Translated test directions Translations (glossary)	100s numbers table Abacus Alternate response options Braille calculator	Multiplication table Print on demand Read aloud Scribe Speech-to-text Word prediction

Designated Supports

- Newest, inclusive category of supports.

- Systematic processes across the school and school district to identify and address identified student needs.

- Includes language supports for English learners

- Available to **ALL** students

- Decision made by teachers, students, parents

Activity

Subject	Assistive technology tools	How would you use these assistive technology tools with students? (Use bullet points)	On a scale of 1-5, how familiar are you with these tools?
Group 1 Reading	Epic Systems Bookshare Learning Ally		1. Never heard of it 2. Heard of it 3. Know how to use it 4. Could teach others
Subject	Assistive technology tools	How would you use these assistive technology tools with students? (Use bullet points)	On a scale of 1-5, how familiar are you with these tools?
Group 2 Writing	Co-Writer Google Voice Typing Read and Write		1. Never heard of it 2. Heard of it 3. Know how to use it 4. Could teach others
Subject	Assistive technology tools	How would you use these assistive technology tools with students? (Use bullet points)	On a scale of 1-5, how familiar are you with these tools?
Group 3 Spelling	Grammarly American Word speller and phonetic dictionary Ginger Software		1. Never heard of it 2. Heard of it 3. Know how to use it 4. Could teach others
Subject	Assistive	How would you use these assistive technology	On a scale of 1-5, how

|	technology tools	tools with students? (Use bullet points)	familiar are you with these tools?
Group 4 Vocabulary	Alphabet Organizer Special Words Kidspiration		1. Never heard of it 2. Heard of it 3. Know how to use it 4. Could teach others

Supporting Parents

Tips for Parents

- Look for early indicators
- Look at family history
- Do your research
- Seek out assessment and diagnosis
- Recognize good remediation
- Focus on the present
- Know your child's accommodations
- Talk to your child about his strengths and weaknesses
- Use technology appropriately
- Allow space to have your child pursue other passions

10 tips for parents of students with dyslexia

Strategies for Parents to Support Students at Home

- Read aloud to your child
- Help them engage in reading by asking them questions like Who are the main characters? What is the story about?
- Encourage thinking skills and curiosity
- Get them to work independently
- Set up a quiet work space at home
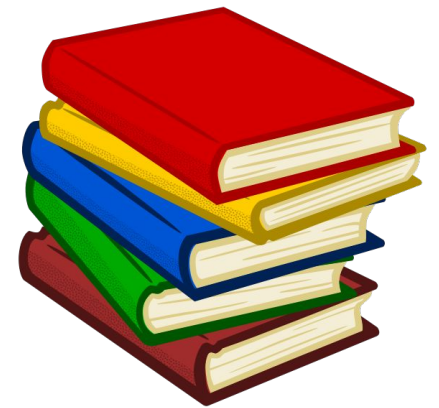
Strategies for Parents to Support Students at Home

- Have your child teach you what they are learning
- Break assignments into manageable chunks
- Give appropriate praise
- Ensure your child is getting enough sleep
- Set up a calendar so they know when things are due
- Set ground rules such as work first before TV.
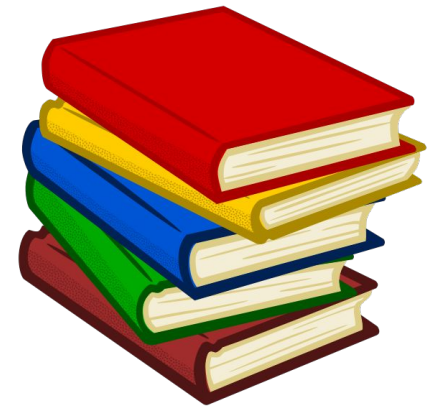
Resources for Parents

[A Family Guide for Building Language Comprehension](#)

[International Dyslexia Association Fact Sheets](#)

[Parents-Yale Dyslexia](#)

[Resources for Parents-Stanford University](#)

[Top 10 Resources Dyslexia Reading Rockets](#)

[Complete Guide to Dyslexia- Childmind.org](#)

[Understood.org What is Dyslexia](#)

Check for Understanding/Exit ticket

- What did you learn?
- What stood out to you?
- What did you learn during this session and how can you use this information to support candidates at National?

[Google Form Module 4](#)

Thank you