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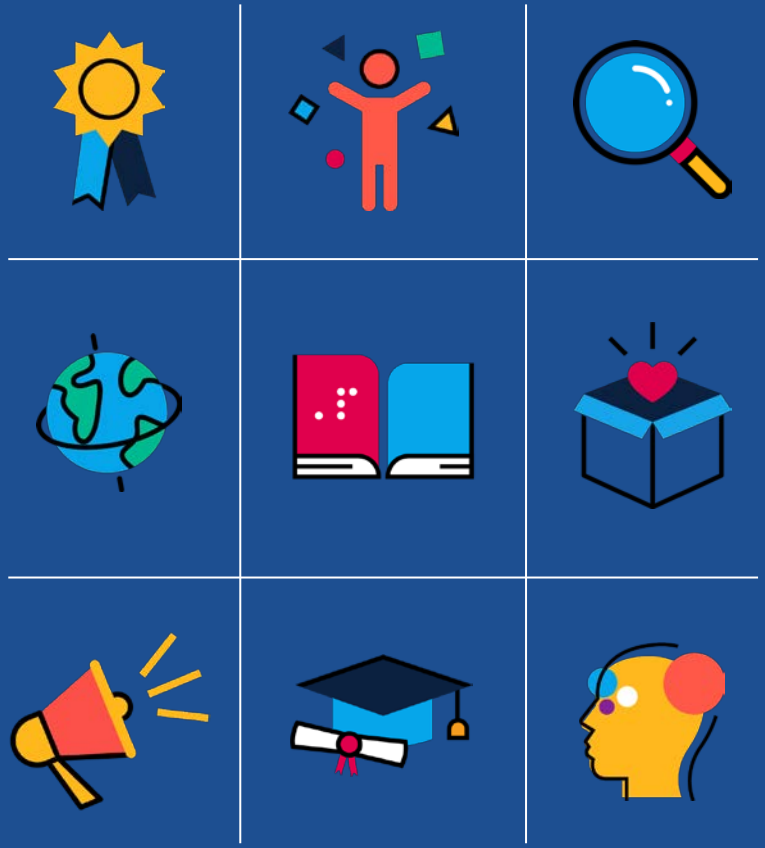
The Connection Between Learning Theory and Student Progress



HELIX: High Expectations for Students with Low Incidence Disabilities

November 14, 2022

Perkins SCHOOL FOR THE BLIND

Presenter

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What you'll learn….

- Understand how students read to learn and learn to read
- Identify when to ask for help to determine why a student may struggle to gain skills
- Recognize the connection between addressing blindness skills (ECC) and secondary diagnosis to improve outcomes

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Who is in the Room?

COLLEGE SUCCESS @ Perkins

COMPASS

Concerns:

- Lack of college completion
- Discovered significant gaps in skill development including executive functioning, technology and accurate sense of skills
- TVI without training in educational theory, decisions often not grounded with long term view
- Low information for parents impacts what they ask for in K-12 system leading to long term deficits impacting education and employment

National Strategy:

- Changing conversations: CoLab 2020
- Integrating mainstream educational research
- Tools Created: College Readiness Resource Center, College Readiness Checklist, Technology Competencies for College Readiness

Compass/Compass Plus

- Direct Service
- Coaching model
- National enrollment
- Students Grade 9-12, educators and family
- Post Secondary individuals looking for guidance

Consider a typical high school or college assignment….A Research Paper

- Find Rubric
- Research
- Write
- Edit
- Submit
- Check Grade
- Review feedback

Now…consider the context…

High School

vs

IDEA and ADA

	K-12	College/Higher Education
Disability Info identifies	District identifies student	Student self-
Service Provision requests accom.	IEP, provides service via school	Student initiates discussion,
Implementation request, followup	District ID's educators to implem. IEP goals	No IEP. Student responsible to
Right to services collaborate to determine services*	Services IDd in IEP/504 plan	DSC/student
Who advocates? advocates.	Student's team and parents	College student
Right to Pers. Svc.	Transportation, attendant, nurse prov.	No personal services provided.

Some Statistics to Ponder

- An estimated 71% of students with a visual impairment enter college within eight years of completing high school. The post-secondary school completion rate for this group of students is 42.8% (Perkins School for the Blind 2015: 5)
- Only 14.9% of blind individuals end up graduating with a BA or higher
- According to Department of Education, only 54% of all students who start college receive a degree in six years (Mitchell 2019)
- Only 28% of students who start college with diagnosed disabilities complete their degree (Mitchell 2019)
- 75% of students who qualify for accommodations never take advantages of the services offered to them (Mitchell 2019)

- According to the FY 2017 Annual Report from the American Printing House for the Blind (APH), based upon data from January of 2016, there are approximately 63,657 U.S. children, youth, and adult students in educational settings who are legally blind (https://www.afb.org/research-and-initiatives/statistics/statistics-blind-children)
- In the US
  - 31% of visually impaired people have a high school diploma
  - 30% have an associate's degree or some college
  - 15% have a bachelor’s degree or higher.
  - Comparatively, 33% of Americans without disabilities have a bachelor’s degree or higher (Perkins School for the Blind 2015: 5)

- The list of essential skills (technology) that a blind student needs to acquire prior to high school graduation has jumped from 14 (2004) to 35 (Kelly, Kapperman 2018: 387)
- Average college reading silent rate is 350 wpm, where low vision students and braille readers tend to read 1.5-2 times slower (Brauner 2020)
- Fewer than 10% of legally blind people in the United States were Braille readers as of 1996 (American Federation for the Blind 1996)
- A study of 6,590 general education students found that academic discipline was positively related to retention in college, and that relationship was mediated by their first year GPA (ACTTessera,https://pages2.act.org/rs/035-EZR-959/images/Tessera_Theory_of_Action.pdf?aliId=62500134)

Where’s the connection?

It’s complicated…
but let’s start with how students learn…

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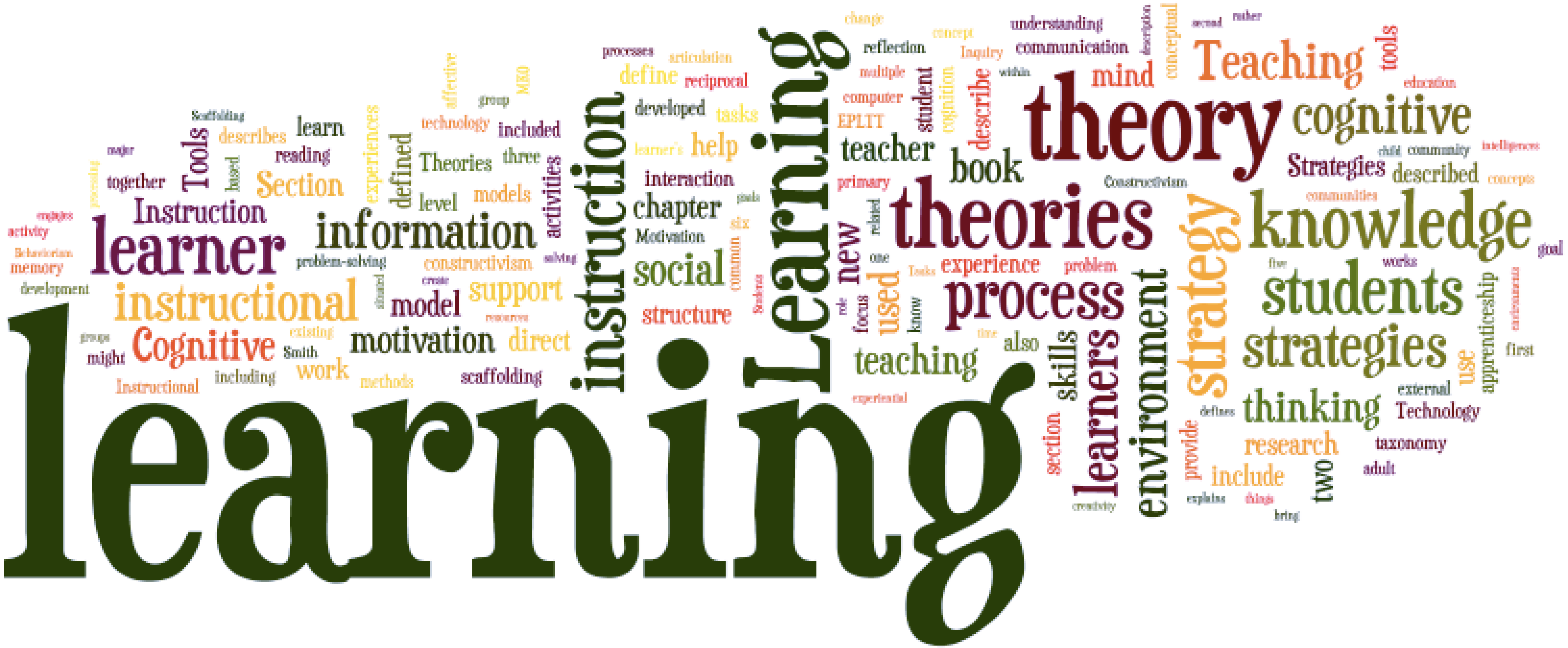
Barriers to Success: What we've observed…

- Little understanding of the complexity of teaching students with visual impairments
- Lack of foundational access technology/computer skills or concepts
- Recent changes in vision
- Not using optimal reading mediums or meeting learning style (eye fatigue, visual learner transitioning to speech) impacting literacy and concept development
- Rigidity ("this is the way I've always done it")
- Need more time to habitualize use of technology and learned skills
- Few opportunity to develop skills in independent self exploration and learning of new tech/curiosity

Barriers to Success: What we've observed

- Always playing catch up academically, socially, developmentally and in skill development due to modifications
- Pressure to graduate on time
- Untrained para support
- Reading Levels
- Lack of TVI, Transition Counselor and parent training to recognize college readiness and and college demands
- Lack of preparedness/naivete about the end of the safety net of high school
- Conflating "wanting" it, with being prepared and inclined for it
- Academic Advising biased toward ease, not rigor.
- Needs 4-5 academic classes per year to keep rigor
- Adventitious vision loss: no guidance/standards to bring up to speed in blindness and academic skills
- Co-morbid learning difficulties unaddressed (ADHD, executive functioning issues, auditory processing disorders)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How to identify when to ask for help as a TVI?

…to determine why a student may struggle to gain skills

It may not have to do with their visual impairment.


Now what?

Three Simple Steps…

Input

Storage

Output

At which point could things fall apart?

There’s a number of ways to consider…

- Blooms Taxonomy
- All Kinds of Minds
- Reading Skill Development
- Executive Functioning
- And…being aware of a student’s readiness to change or integrate new approaches…

Blooms Taxonomy

Creating: Generating Ideas, products, or ways of viewing things.
Verbs: Designing, constructing, planning, producing, inventing

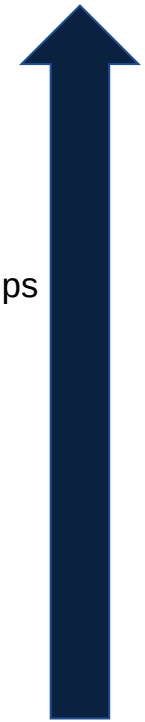
Evaluating: Justifying a decision or course of action
Verbs:Checking, hypothesizing, critiquing, experimenting, judging

Analysing: Breaking information into parts to explore understanding and relationships
Verbs: Comparing, organizing, deconstructing, interrogating, finding

Applying: Using information in another familiar situation
Verbs: Implementing, carrying out, using, executing

Understanding: Explaining things or ideas
Verbs: Interpreting, summarizing, paraphrasing, classifying, explaining

Remembering: Recalling information
Verbs: Recognizing, listing, describing, retrieving, naming, finding



Learning to read...reading to learn...

Why is Bloom's Taxonomy important?

Different approach to explaining the act of learning…

From All Kinds of Minds

- Attention
- Higher Order Cognition (Complex Thinking)
- Language
- Memory
- Neuromotor Functions (Controlling movement)
- Social Cognition (Making and Keeping Friends)
- Visual-Spatial Thinking
- Temporal-Sequential Thinking (Keeping Track of Time/Order)

How could All Kinds of Minds' approach impact how you consider your student's learning?

How does this all relate to learning?

Concept development, language development, vocabulary development…I could go on!

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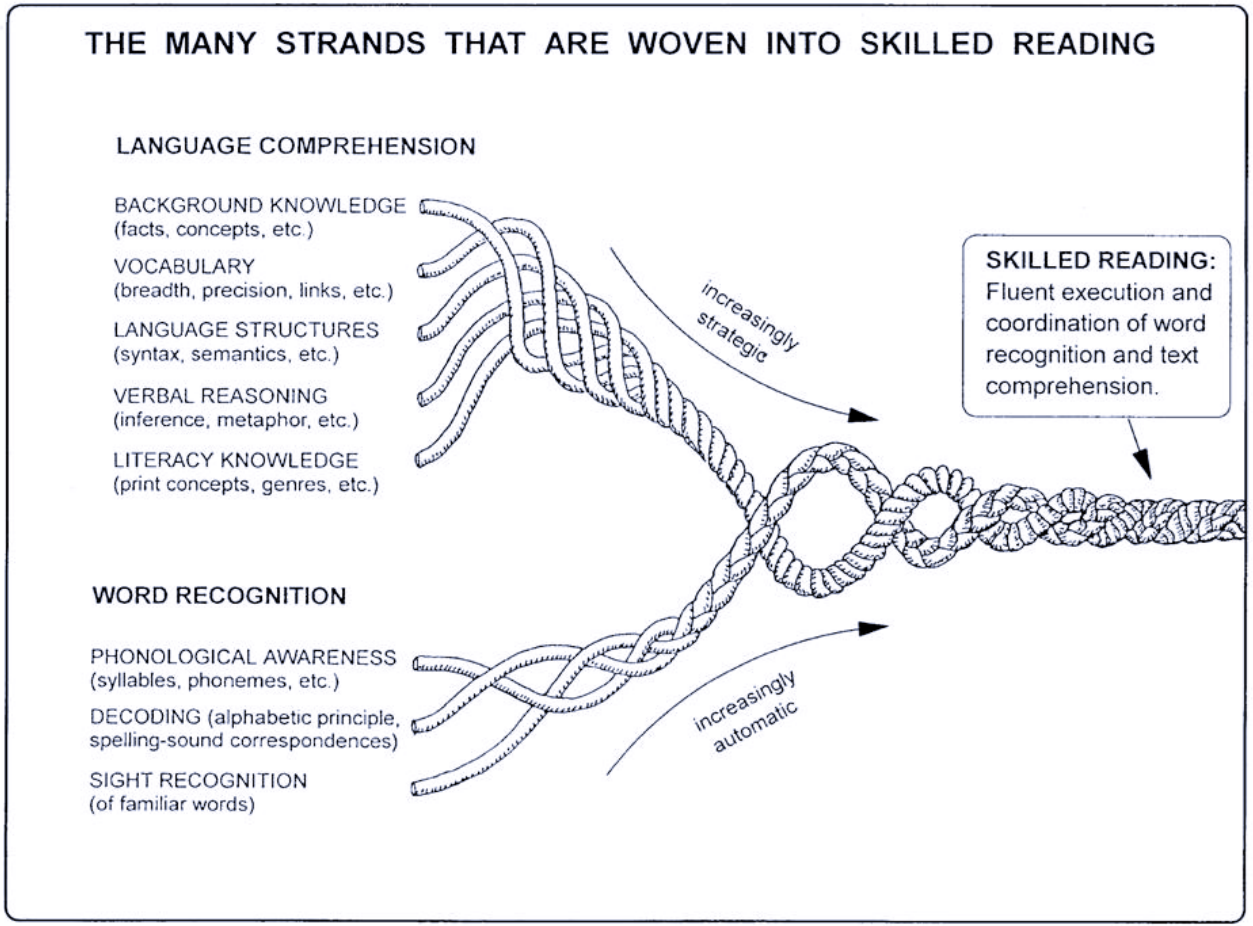
Learning to read and reading to learn…

And for our students, doing this with a visual impairment, it may take a village…


THE MANY STRANDS THAT ARE WOVEN INTO SKILLED READING
LANGUAGE COMPREHENSION
BACKGROUND KNOWLEDGE
(facts, concepts, etc.)
VOCABULARY
(breadth, precision, links, etc.)
LANGUAGE STRUCTURES
(syntax, semantics, etc.)
VERBAL REASONING
(inference, metaphor, etc.)
LITERACY KNOWLEDGE
(print concepts, genres, etc.)
increasingly strategic
SKILLED READING:
Fluent execution and coordination of word recognition and text comprehension.
WORD RECOGNITION
PHONOLOGICAL AWARENESS
(syllables, phonemes, etc.)
DECODING (alphabetic principle, spelling-sound correspondences)
SIGHT RECOGNITION
(of familiar words)
increasingly automatic

Reading Fluency…From *Reading Connections*

Cheryl Kamei-Hannan, Leila A. Ricci

“Readers who are fluent are able to read text orally with accuracy, speed and natural expression. By reading text in an efficient and fluid manner, children can focus on the comprehension of meaning. Laborious and choppy reading by contrast, often makes it difficult for a reader to remember what as been read because so much energy has been devoted to the act of word for word reading. Explicit instruction in reading fluency is necessary for helping beginning readers make the transition into becoming fluent, expressive readers.” pp. 11

“Improving fluency can lead to improvement in students’ comprehension…” p. 171

Skilled vs. Struggling Readers

Skilled

- "…those who process text very rapidly and without conscious effort…" American Fed. of Teachers

Struggling

- Challenges with phonemic awareness, decoding unfamiliar words
- Weak prior knowledge
- Effects compound over time resulting in weak vocabulary, ability to engage in more complex ideas and assignments

Skilled vs. Struggling Readers

Skilled

- By 2nd grade, 90 words per minute with 90% accuracy

Struggling

- By 3rd grade, braille readers were in the lower 25th percentile in most reading skills
- Low vision readers reported 2 grades below peers in speed, accuracy and comprehension

Considerations…for readers with visual impairments *Reading Connections*

- Incomplete, delayed understanding of concepts
- Reduced access to environment
- Delay in understanding of print conventions
- Need to learn multiple tools to access for low vision readers
- Presence of additional learning disabilities or ELL needs
- Age of vision loss, residual vision, visual perception, field loss, etc.
- Acquire the same skills in the same order but may take more intensive support and instruction
- Hard to achieve fluency as a skilled reader….

Implications for a TVI….

When to ask for expert reading support?

When to integrate auditory reading and tech skills to build vocabulary/fund of knowledge?

How to integrate general education reading instruction?

What do you do if a student's reading fluency is too slow to keep up with their peers/remain in challenging courses? What are the consequences?

Are you getting enough time to support continued work on reading fluency?

Discussion…

What questions does this raise for you?

What skills do you bring to this work?

What skills do you need to find support for?

Do you have enough time to adequately support the development of reading fluency with your students?

Executive Functioning….

Is all about organizing yourself for goal directed behavior...and when you think about it, you need to have EF skills to be successful!

Definitions of Executive Functions

Guare and Dawson: Smart but Scattered

1. Emotional Control
2. Flexibility
3. Goal-directed persistence
4. Metacognition
5. Organization
6. Planning/Prioritization
7. Response Inhibition
8. Stress Tolerance
9. Sustained Attention
10. Task Initiation
11. Time Management
12. Working Memory

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Engagement

Trust, communication and locus of control

How to you support learning?

Recognize a student's
- Readiness to change behaviors
- Developmental level

Recognize other factors:
- Secondary diagnoses
  (LD, autism, medical, mental health)
- Trauma

Transtheoretical Theory of Change

Per Mary Kennedy, Coaching College Students with EF Problems based on research by James Prochaska and Carlo DiClemente

- Precontemplation
- Contemplation
- Preparation
- Action
- Maintenance

Change

Precontemplation

- This is the earliest stage, where the person is unaware of the problem.
- He or she resists, rebels, resigns, or rationalizes, and does not acknowledge that a problem exists.
- Example:
  - The student denies having memory and organization problems that resulted in missing assignments and poor test grades.

Change

Contemplation

- The person acknowledges that there is a problem, but does not necessarily see the cause of or the solution to the problem, although he or she investigates potential solutions.
- The person may ruminate, weighting pluses and minuses over and over again.
- Example:
  - The student realizes that his or her poor organization and memory problems have resulted in missing assignments and poor test grades.

Change

Preparation

- The person is ready for change.
- He or she may have tried but failed in the past to change and needs to make plans for and commitment to change.
- Example:
  - The student creates a study plan and selects study strategies. The plan may be elaborate or simple.

Change

Action

- The person puts the plan into actions, which involves changing one's behavior.
- Note that putting plans into action does not always equate with reaching a goal.
- Example:
  - The student implements the study plan and study strategies. This can include modifying the action plan to fit the situation.

Change

Maintenance

- The person maintains the desired behavior using the plan
- Relapse and recycling through the stages again is possible.
- Example:
  - The students continues to implement the plan. He or she may discontinue its use if the routine was not well established or if something interrupts the routine and the student recycles to a prior stage to get started again.

Coaching Model

Mary Kennedy: Coaching College Students with EF Problems

- Enables students to become experts in how they think, learn, stay organized and socialize in situations and during activities that are bound to change (Kennedy 2017: 63)
- Motivational Interviewing Model
  - Express Empathy
  - Develop discrepancy
  - Roll with Resistance
  - Support self-efficacy
  - Uses: Open Questions, Affirmations, Reflections and Summaries

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And now...a word about technology

- Braille
- Multiple Device Skills
- Parallel Processing
- Academics
- STARTING EARLY

Why is this important?

Increased learning leads to…

Increased vocabulary development

Increased concept development

Opportunity to manage more challenging coursework

Opportunities to create work that is consistent with peers

Increased academic rigor

Increased sense of self efficacy

Increased independence

Increased academic skills that will translate into more post secondary options for college, training and work

When to call in the team…

- When a student is not making regular progress through the student's goals
- When a student struggles with accessing or expressing language
- When a student struggles with quantitative concepts even with accommodations and practice
- When a student is not close to reading on grade level by late elementary school, at a pace that allows them to keep up with their classmates
- When you are unable to integrate multiple points of print access (braille plus laptop skills-auditory, large print plus laptop skills-auditory) by middle school (including QWERTY keyboarding); earlier is better
- ACCESS PLUS FLUENCY/EFFICIENCY IS KEY!

Discussion…

What questions does this raise for you?
How can you integrate these ideas into your work?

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Resources

- **College Readiness Resource Center:** https://www.perkins.org/college-success/resource-center/
- **College Readiness Checklist:** https://www.perkins.org/resource/college-success-readiness-checklist/
- **Technology Competencies Checklist:** https://www.perkins.org/resource/technology-competencies-for-college-ready-students-with-visual-impairments/
- **High School Readiness Checklist:** https://sites.google.com/usdb.org/usb-expanded-core-curriculum/home?authuser=0
- **Beyond Booksmart:** https://www.beyondbooksmart.com/
- **Harvard Graduate School of Education: Center for the Developing Child:** Center on the Developing Child at Harvard University (2014). *Enhancing and Practicing Executive Function Skills with Children from Infancy to Adolescence.* Retrieved from www.developingchild.harvard.edu. https://developingchild.harvard.edu/resources/activities-guide-enhancing-and-practicing-executive-function-skills-with-children-from-infancy-to-adolescence/

Resources

Technology Competencies Webinar Series: (includes presentation about concept development and reading with Marianne Wolf, and Access and Equity with Ting Siu) https://www.perkins.org/resource/tech-literacy-and-educational-equity-exploring-whats-next-and-necessary-for-college-aspiring-learners-with-blindness-and-low-vision/

Best Practices AER Webinar Series 2020 (includes Executive Functioning): https://www.perkins.org/resource/best-practices-and-expert-advice-how-educators-can-support-college-bound-students-who-are-visually-impaired/

Summer Learning Series 2022: https://www.perkins.org/resource/students-with-vision-loss-college-and-transition-where-we-are-and-where-we-are-going/

Resources

Books

Dawson, P., & Guare, R. (2017). *The Work-Smart Academic Planner, Revised Edition* (Rev. ed.). New York, NY: Guilford Press.

Note: This is a great tool to learn how to break tasks down; all of the charts and lists are included in digital formats once purchased, so these can be downloaded as PDFs, or you can use them as inspiration.

Guare, R., & Dawson, P. (2012). *Coaching Students with Executive Skills Deficits*. New York, NY: Guilford Press.

Guare, R., Guare, C., & Dawson, P. (2019). *Smart but Scattered-and Stalled*. New York, NY: Guilford Press.

Note: All the Smart but Scattered books are awesome and cover a wide age range.

Guare, R. & Dawson, P. (2018) *Executive Skills in Children and Adolescents: A Practical Guide to Assessment and Intervention.* New York, NY; Guilford Press.

Kennedy, M. (2017). *Coaching College Students with Executive Function Problems*. New York, NY: Guilford Press.

Meltzer, L. (2010). *What Works for Special Needs Learners: Promoting Executive Function in the Classroom*. New York, NY: Guilford Press..

Delman, M. (2018). *Your Kid's Gonna Be Okay*. Needham, MA; Beyond Booksmart.com

Note: Go to their website to order.

Questions?

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