

# Disability Knowledge Strengthens Mentors' Abilities for Supporting Undergraduate Mentees with Learning and Attention Disorders and Others Students

CONSUELO KREIDER, PHD, OTR/L

SHARON MEDINA, MOT, OTR/L

**UF** | College of Public Health  
& Health Professions  
UNIVERSITY of FLORIDA

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grat·i·tude:   
the quality of being thankful;  
readiness to show appreciation  
for and to return kindness.

Image: <https://www.acceleratedjoyworks.com/2017/04/the-power-of-gratitude/>

# Objectives

1. Describe the CS3LD mentorship model
2. Highlight lessons learned during the mentorship model implementation
3. Identify knowledge and supports provided to mentors
4. Describe unexpected benefits to mentors receiving LD/ADHD specific training

# Learning Disabilities and ADHD (LD/ADHD)

- Umbrella term – group of developmental disorders that affects the brain's ability to receive, process, store, and respond to information
  - Reading, math, writing disorders
  - Coordination disorder
  - Language, auditory processing disorders
  - Attention disorders (ADHD)
- Academic difficulties despite average or above average intelligence

# Executive Function Symptoms

**Learning disorders** Varvara et al 2014  
<https://doi.org/10.3389/fnhum.2014.00120>

- ▶ **Executive Attention**
- ▶ **Working memory** (maintaining relevant information)
- ▶ **Inhibition** (of irrelevant information)
- ▶ Auditory attention & verbal WM
  - ▶ **Temporal coding**
- ▶ Visual spatial attention and WM
- ▶ **Executive self-regulation:**
  - ▶ On-line awareness
  - ▶ on-line **mental flexibility**
  - ▶ (monitoring & problem solving in the moment)

**Attention disorders** Barkley 1997  
<http://dx.doi.org/10.1037/0033-2909.121.1.65>

- ▶ **Attention**
- ▶ **Working memory**
- ▶ **Inhibitory control**
- ▶ **Time perception**
- ▶ **Self-regulation** of:
  - ▶ Affect
  - ▶ Motivation
  - ▶ Arousal
- ▶ **Mental flexibility**

# Executive Function Symptoms...

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**Autism** Craig et al 2016  
<https://doi.org/10.2147/NDT.S104620>

Berkovits et al. 2017  
<https://doi.org/10.1007/s10803-016-2922-2>

Dijkhuis et al., 2016  
<https://doi.org/10.1177%2F1362361316655525>

- ▶ **Attention**
- ▶ **Working memory**
- ▶ **Mental flexibility**
- ▶ **Self-regulation** of:
  - ▶ Emotion
  - ▶ Monitoring

# Why Mentorship Needed?



- ✓ Time management
- ✓ Memory
- ✓ Concentration



- ✓ Literacy- advanced textbooks & workplace
- ✓ **Accuracy** with literacy
- ✓ Numeracy for workplace & daily life management



- ✓ Finding directions
- ✓ Organizational Skills



- ✓ Motor coordination - ↓ exercise options
- ✓ Stress management



- ✓ Listening and taking notes
- ✓ Communicating verbally



- ✓ Understanding neurodifferences
- ✓ Using neuro-different strengths

# What Might you Notice at School or in the Workplace? Personal Life?

## Memory

- Keeping track of information during meetings
- Forgetting/failing to follow up on verbal advice

## Organization skills

- Filing information
- Managing appointments & emails
- Keeping track of materials

## Time management

- Prioritizing work tasks
- Meeting deadlines
- Estimating how long things take to complete

## Literacy

- The basics- spelling & grammar
- Structuring reports/writing
- Reading lengthy material

## What can cause imbalance?

- New staff (e.g., manager)
- Change in location
- New procedure and protocols/deviations from procedures

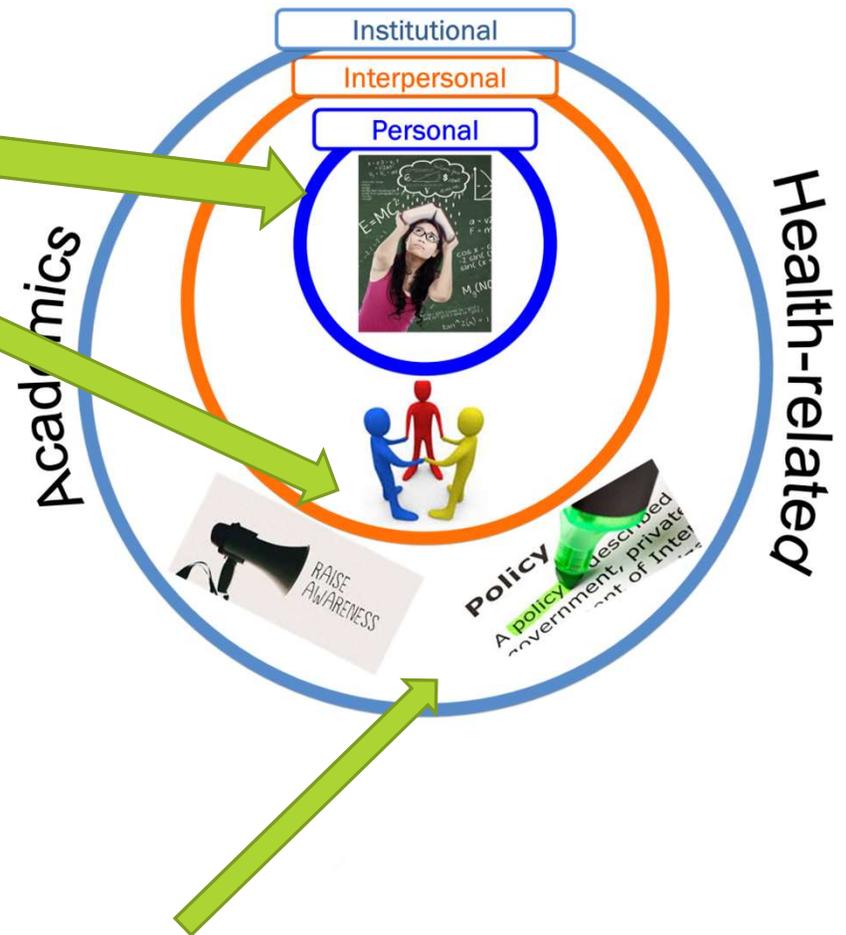
## Personal life

- Chaotic personal life
- Multiple jobs
- Clumsiness/injuries
- Struggles with driving
- Frequent absences

# From our Research

CS3LD COMPREHENSIVE SUPPORT MODEL

[WWW.KREIDERLAB.PHHP.UFL.EDU](http://WWW.KREIDERLAB.PHHP.UFL.EDU)



<https://doi.org/10.3389/fpsyg.2018.01466>



# Beyond Academics: A Model for Simultaneously Advancing Campus-Based Supports for Learning Disabilities, STEM Students' Skills for Self-Regulation, and Mentors' Knowledge for Co-regulating and Guiding

Consuelo M. Kreider<sup>1\*</sup>, Sharon Medina<sup>1</sup>, Mei-Fang Lan<sup>2</sup>, Chang-Yu Wu<sup>3</sup>, Susan S. Percival<sup>4</sup>, Charles E. Byrd<sup>5</sup>, Anthony Dellisle<sup>6</sup>, Donna Schoenfelder<sup>1</sup> and William C. Mann<sup>1</sup>

## OPEN ACCESS

### Edited by:

Meryem Yilmaz Soylu,  
University of Nebraska-Lincoln,  
United States

### Reviewed by:

Angela Jocelyn Fawcett,  
Swansea University, United Kingdom

<sup>1</sup> Department of Occupational Therapy, University of Florida, Gainesville, FL, United States, <sup>2</sup> Counseling and Wellness Center, University of Florida, Gainesville, FL, United States, <sup>3</sup> Department of Environmental Engineering Sciences, University of Florida, Gainesville, FL, United States, <sup>4</sup> Food Science and Human Nutrition Department, University of Florida, Gainesville, FL, United States, <sup>5</sup> Department of Community Health and Family Medicine, University of Florida, Gainesville, FL, United States, <sup>6</sup> Center for Independent Living of North Central Florida, Gainesville, FL, United States

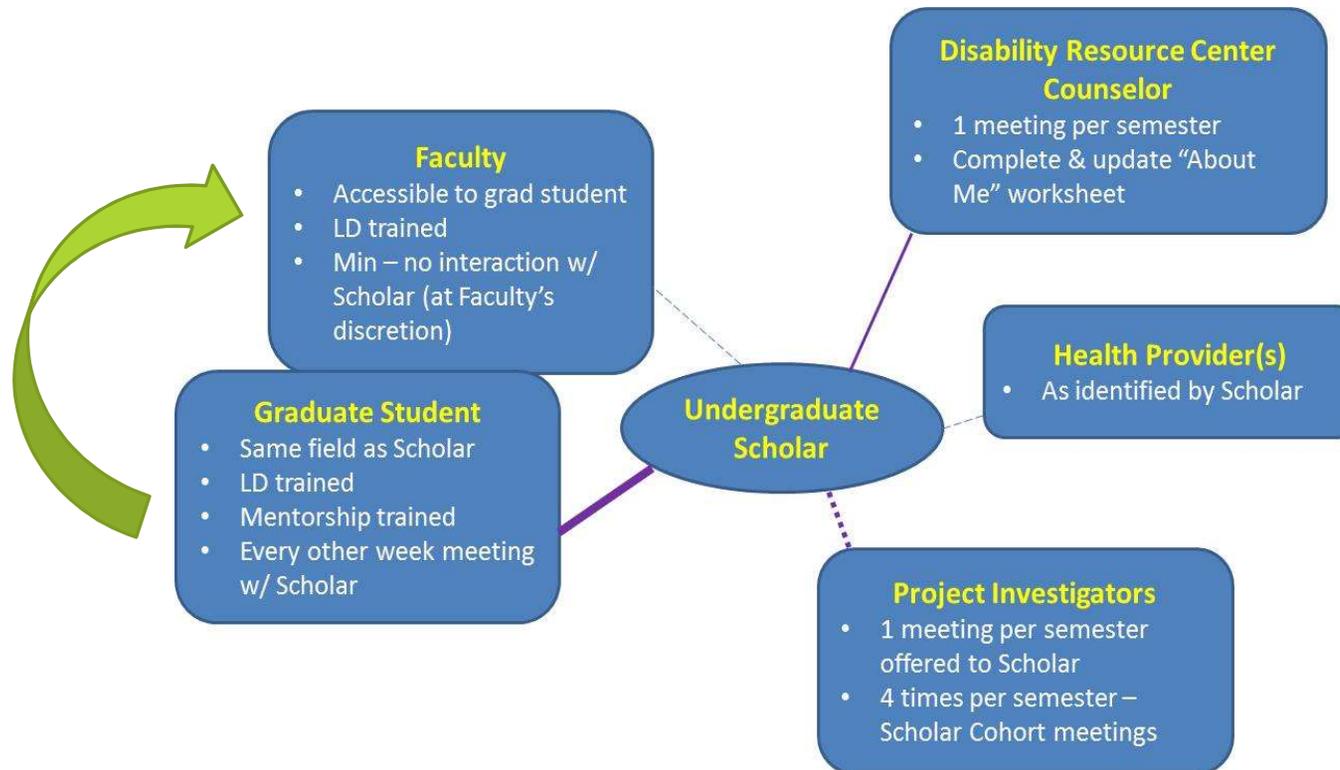
Learning disabilities are highly prevalent on college campuses, yet students with learning disabilities graduate at lower rates than those without disabilities.

# Key Elements

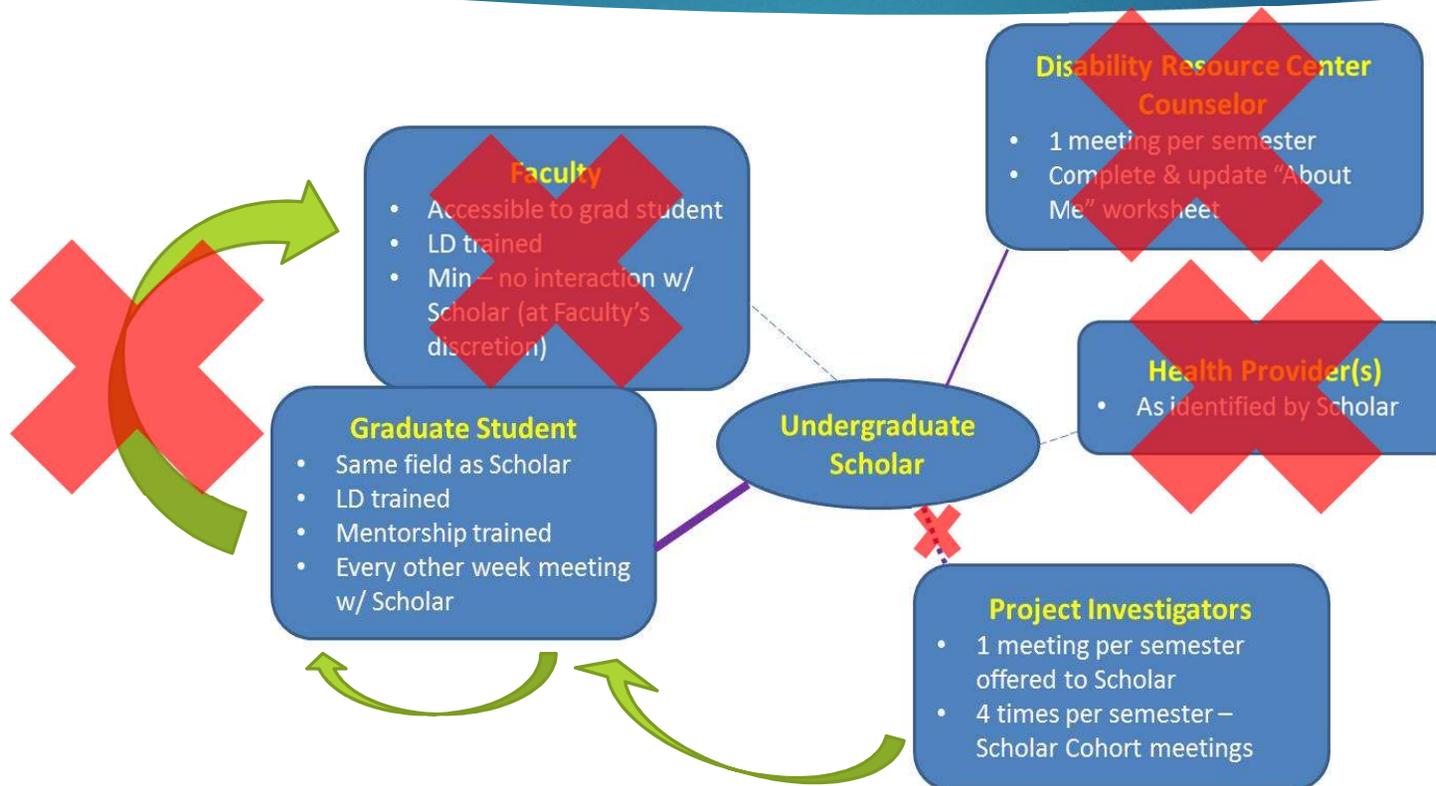
Mentorship model

Mentor knowledge needs

# CS<sup>3</sup>LD Mentorship Model



# What Really Happened



# Overview of Mentor Training Content



- Overview of CS3LD Project
- Students with LD/ADHD
- Definitions & Diagnosis of LD/ADHD
- Strengths & Challenges for LD/ADHD
- Definition & goals of mentorship
- Mentorship Strategies

# Mentor Orientation

Goal: Professional Enculturation & Educational Persistence

## BACKGROUND ON MENTORSHIP

### CS<sup>3</sup>LD MENTOR ORIENTATION

- Mentorship defined
- **CS<sup>3</sup>LD mentorship**
  - ✓ **Professional resource**
  - ✓ **Academic resource**
  - ✓ **Enculturation**
  - ✓ *NOT a tutor*

## CRITICAL SKILLS AND CHARACTERISTICS FOR MENTORSHIP

### CS<sup>3</sup>LD MENTOR ORIENTATION

- **Setting up meetings with mentee:**
  - Logistics
  - Strategies
- **Goal setting**
- **Building a relationship**
- **Healthy communication & handling difficult conversations**

# Mentor Disability-Specific Training

CRITICAL SKILLS AND  
CHARACTERISTICS FOR  
MENTORSHIP

CS<sup>3</sup>LD MENTOR ORIENTATION

➤ **Setting up meetings with mentee:**

✓ Logistics

✓ **Strategies**

➤ **Confidentiality**

✓ Protecting mentees health information

➤ **Disability laws and rights**

✓ IDEA >> ADA

➤ **Academic accommodations**

➤ **Signs of distress**

✓ What to do if there is a crisis

➤ **Learned helplessness, Impostor syndrome, & Self-advocacy**

# Mentor Disability-Specific Training cont.

## STUDENTS WITH LEARNING DISABILITIES (SLD)

### CS<sup>3</sup>LD MENTOR ORIENTATION

- LD/ADHD defined
- LD/ADHD diagnosis - process
- Strengths of LD/ADHD
- Challenges of LD/ADHD

#### STRENGTHS OF SLD

- Student with a Learning Disability (SLD), typically has average to above average intelligence

#### CHALLENGES FOR SLD

- Although most students with SLD are intelligent, they often have specific learning needs
  - How their
  - How SLD i
- Families
  - SLD often r
  - Peer men
  - Instructors of SLD (LD)
    - Disrupti
    - Attentio
- SLD are off support se
- SLD have c

#### COMPARED TO STUDENTS WITHOUT LD, SLD MAY HAVE REAL CHALLENGES WITH...

- Potential for academic success *NOT* a challenge
- Receiving / Synthesizing / Applying / Comprehending information & instructions
- Communication and social interaction
- Managing and completing exams/assignments in time allotted (i.e. trouble meeting deadlines)
- Higher absenteeism

# Mentors' Questions

"So what do we absolutely do to get more help about the disability? [learn more about specifics]"

"Is it okay to talk personal experience with them?..."

"Do we have to be as far as privacy disclosure things; are there things that we should be aware of...how we address things or how we ask things?"

"So for example my scholar wants to visit our lab so what am I supposed to? (in terms of privacy)"

## Questions cont.

"I have a question on the institutional support... especially for students with LD"

"...when I started making my scholar write things down... I had some trouble getting him to follow through. I wasn't sure how much to be on top of him about that. Do any of you have experience...?"

"...haven't really included much explicit discussion of LD. I don't know if that's a dis-service or not."

# Handouts for our Mentors

## ► Educate on best practice: Universal design for learning (UDL)

### **Definition of Universal Design (UD):**

“Universal Design is the design of products & environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design.”

### **Definition of Universal Design for Learning and Instruction:**

“The concept of UDL is the intersection where all the best instruction initiatives—integrated units, multi-sensory teaching, multiple intelligences, differentiated instruction, use of computers in schools, performance-based assessment, and others—come together. The key to helping all students achieve is identifying and removing barriers from teaching methods and materials.”

### **Benefits of UD:**

- UD offers innovative ways to reach diverse learners.
- UD involves multimodal teaching and assessment method.
- UD offers flexible and customized teaching methods.

## ► Ice breaking: Structured joint activity



Comprehensive Support for STEM & SBE Students with Learning Disabilities

### Scholar Project Information

As part of our work with NSF we would like the scholars to create a “Public Service Announcement” (PSA) or LD/ADHD Awareness/Educational project.

Email finished project or communicate with Donna Schoenfelder to arrange delivery of your finished product(s): [dschoenfelder@ufl.edu](mailto:dschoenfelder@ufl.edu)

#### Think about:

- What message(s) do you want to promote? Who should the message be targeted at?
- What do you want your audience to learn from your project?
- How do you imagine your project being disseminated?
- How big should the project be? Would you prefer to work on two smaller projects (one per semester), or one larger project to be submitted in the Spring semester? Communicate your decision to Donna Schoenfelder

#### You can:

- Use GoAnimate or other presentation format (i.e. iMovie)
- Create a Power Point presentation
- Make a brochure
- Make a video
- Write a short reaction paper

## ► Help them do their jobs better: Tips for teaching

### Examples of Universal Design in the Classroom:

#### Lectures

- Before the lecture, write key terms, concepts, and ideas on the board.
- Prepare a handout that outlines key terms, concepts, and ideas. It is especially important to include technical language or disciplinary jargon that may be new for students.
- Give students two or three questions that they should be able to answer by the end of each lecture.
- Use visual aids (overheads, diagrams, charts, or graphs) to underscore key points and main ideas.
- Face the class and speak distinctly at a relaxed pace to facilitate note taking and processing.
- Use an advance organizer at the beginning of class. Refer back to advance organizer at the end of the lecture to summarize what was accomplished.

#### Classroom

- Put course content on-line allowing students to pick up information that might have been missed in lecture.
- Use peer mentoring, group discussions, and cooperative learning situations rather than strictly lecture.
- Using guided notes (see note 1) enables students to listen for essential concepts without just copying notes off of Whiteboard, Screen, etc.
- Update course materials based on current events and student demands.
- Provide comprehensive syllabus (see note 2) with clearly identified course requirements, accommodation statement and due dates.

CLUES	LEARNING TIPS
<b>Visual</b> <ul style="list-style-type: none"> <li>• Needs to see it to know it.</li> <li>• May have strong artistic ability.</li> <li>• Difficulty with spoken directions.</li> <li>• Misinterpretation of words.</li> <li>• Overreaction to sounds.</li> </ul>	<ul style="list-style-type: none"> <li>• Use of graphics to reinforce learning—films, slides, illustrations, diagrams, doodles.</li> <li>• Color coding to organize notes and possessions.</li> <li>• Written directions.</li> <li>• Use of flow charts and diagrams for notetaking.</li> <li>• Visualizing spelling of words or facts to be memorized.</li> </ul>
<b>Auditory</b> <ul style="list-style-type: none"> <li>• Prefers to get information by listening—needs to hear it to know it.</li> <li>• Difficulty following written directions.</li> <li>• Problems with writing.</li> <li>• Inability to read body language and facial expressions.</li> </ul>	<ul style="list-style-type: none"> <li>• Use of tapes for reading and for class lecture notes.</li> <li>• Learning by interviewing or by participating in discussions.</li> <li>• Having test questions or discussions read aloud or put on tape.</li> </ul>
<b>Kinesthetic</b> <ul style="list-style-type: none"> <li>• Prefers hands-on learning.</li> <li>• Can assemble parts without reading directions.</li> <li>• Difficulty sitting still.</li> <li>• Learns better when physical activity is involved.</li> <li>• May be very well coordinated and have athletic ability.</li> </ul>	<ul style="list-style-type: none"> <li>• Experiential learning (making models, doing lab work, and role playing).</li> <li>• Frequent breaks in study periods.</li> <li>• Tracing letters and words to learn spelling and remember facts.</li> <li>• Use of computer to reinforce learning through sense of touch.</li> </ul>

► Foster empathy: Classroom concerns for students with LD/ADHD

**Top 20 Student Classroom Concerns:**

- I find the syllabus totally confusing.
- I cannot keep up when taking notes.
- It is difficult to read cursive on the blackboard.
- I cannot complete exam in the allotted time.
- I need an explanation to help me understand visual diagrams.
- My entire grade is dependent on a midterm and a final.
- I do not receive feedback on exams or papers.
- I have no idea as to how the teacher sets up the exam.
- I do not know how to study for the exam.
- I am not clear as to what the “make up” exam policy is.
- If I miss a class due to illness I miss all the notes for that day.
- I panic during exams.
- I cannot catch information given out as students pack up to leave at the end of class.
- Test questions are sometimes unclear.
- It is hard for me to read certain fonts on the exam.
- My teacher is not available outside of class.
- I am a poor test taker.
- I am easily distracted by classroom noises during exams.
- It's difficult for me to approach an instructor.
- I panic when an instructor calls on me spontaneously.

► Tools for supporting guided discovery:

Scripts for bringing up potentially helpful supports



Comprehensive Support for STEM & SBE Students with Learning Disabilities

**Activities to help your Scholar discern his or her story and strengths**

When working with your Scholar to create his or her LD/ADHD Awareness/Self-Advocacy project, we would like you to work with your Scholar in helping him or her discern his/her personal story and strengths.

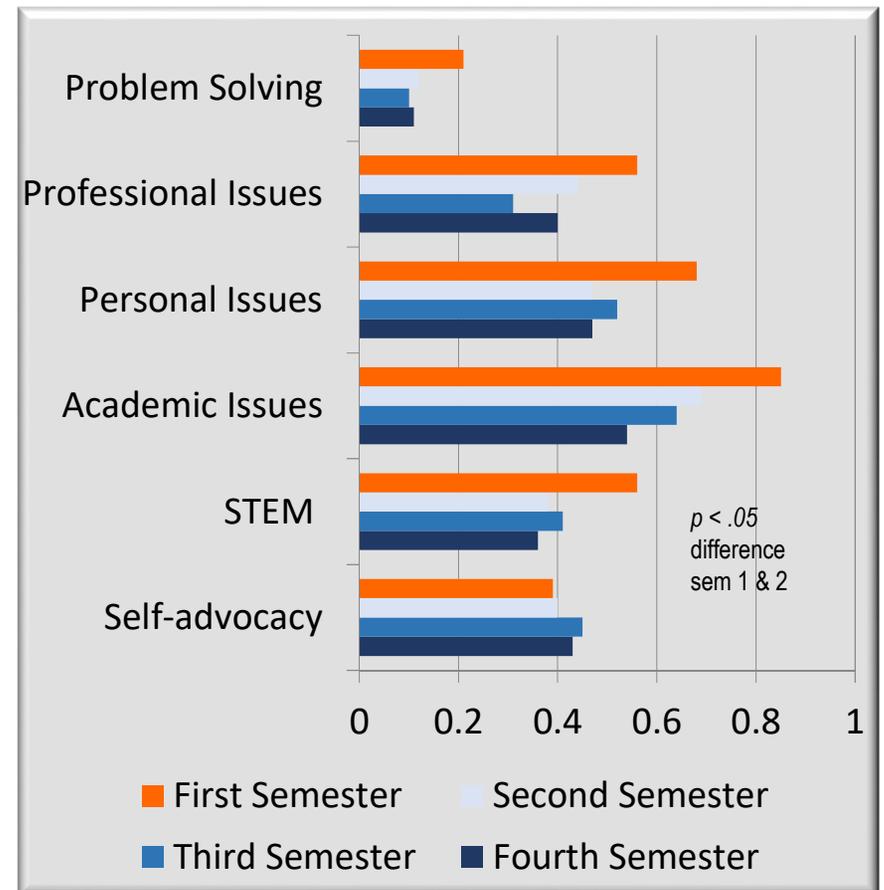
Below are some suggested activities.

1. Visit <http://www.selfnarrate.com/blog/> to learn more about how to tell one's personal story and hear the story of others in the Gainesville area. Explore this site together.
2. Consider attending the upcoming story development conference together. Saturday Nov. 5<sup>th</sup> 8:00 AM to 12:00 PM. United Church of Gainesville, NW 5<sup>th</sup> Ave.
3. Discuss potential other events you could attend together such as a local meeting in your field of study, an event sponsored by your professional organization, etc.

"Hey I saw this [insert link or picture] and thought of you. Let me know what you think."

Hi \_\_\_\_, I remember that you texted me about wanting to incorporate more fruits and vegetables into your diet this semester. I know that finals are coming up and I just found out about this great resource. Janis Mena is a nutritionist the Infirmary Building on Fletcher Drive. It is completely free to set up an appointment and meet her. In case you are interested, here is her information <http://shcc.ufl.edu/services/specialty-care/nutrition-services/>. Please let me know if you find this helpful.

# Reductions in discussions about academic issues & STEM-related concerns



# Support for Problem Solving

## Academics

- Academic support
- Accountability
- Campus Resources
- Accommodations
- Course Load
- Graduation

*“She had issues with...translating words to numbers in math problems ... after a few weeks she noticed some improvement in her abilities to solve such problems.” -M103*

## Difficulties related to Executive Functioning

- Big Picture Thinking
- Break Things Down
- LD Specific Coping
- Organization
- Stress Management
- Time Management

*“We tend to have a lotta discussions about just overall perspective and trying to come back around to what that bigger picture is” -M95*

## Adult Life Skills

- Communication with Others
- Employment
- Finances
- Life Skills

*“I would help her come up with different ways to say, “slow at processing”... without sound like she was trying to make excuses.” -M68*

# Support for Self-advocacy

## **Students' Disability Context**

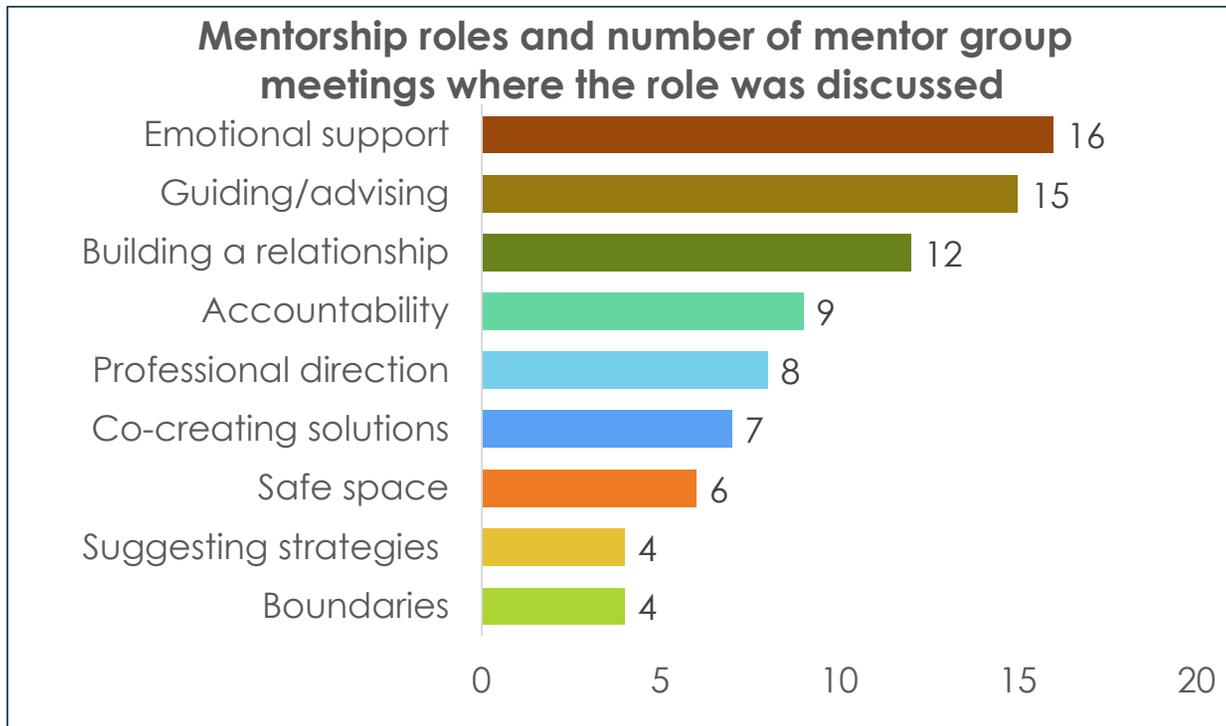
- Self-advocacy was discussed in terms of mentees's advocating for their own accommodations and overcoming stigma

*"I didn't honestly take myself seriously as a student, but my mentor was the one who encouraged me to push and she made me feel that valid— she made me feel valid enough that I know I can now compete with the rest of the students here, even the ones who don't have an LD...It's motivated me to do my own research, so now I can advocate for it, and I can say, 'No, you're wrong.'" –U13*

# Mentor-identified Roles

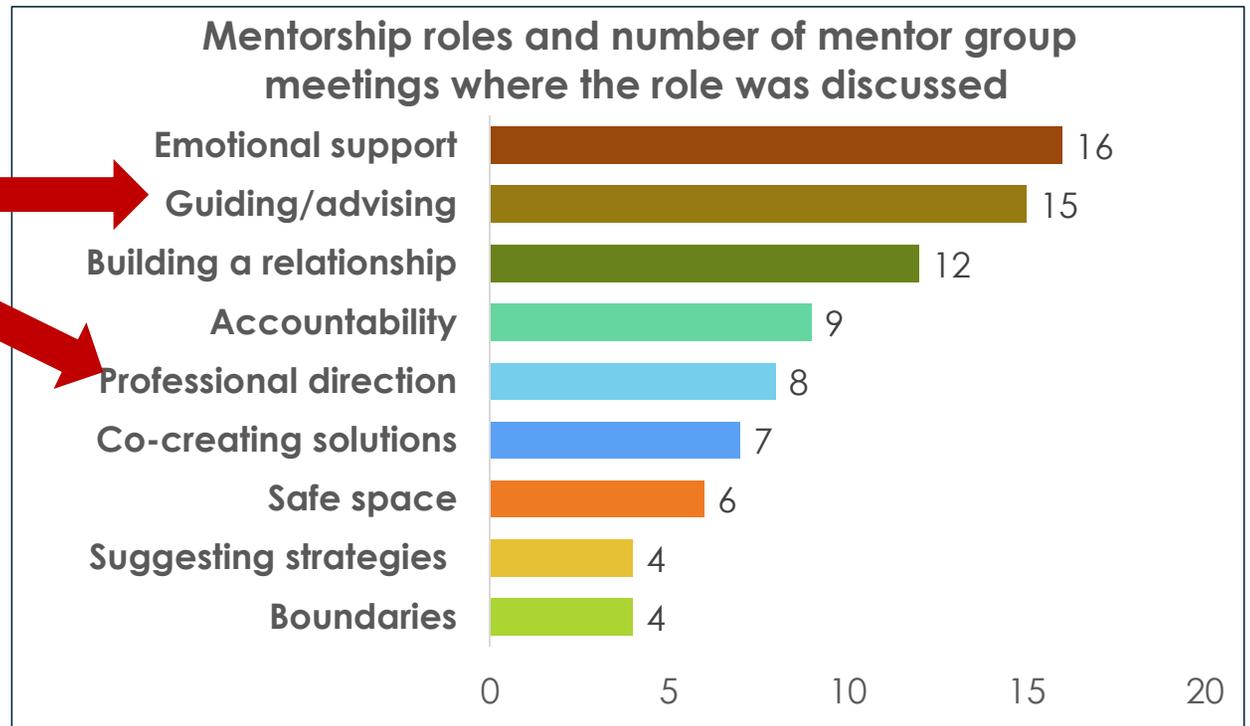


# Mentor Roles: Preliminary Analysis



“My students [mentees] were really looking for someone to guide them in all aspects of life including academics, social settings, and navigating and interpreting day to day activities.”

# Mentor Roles: Professional Enculturation

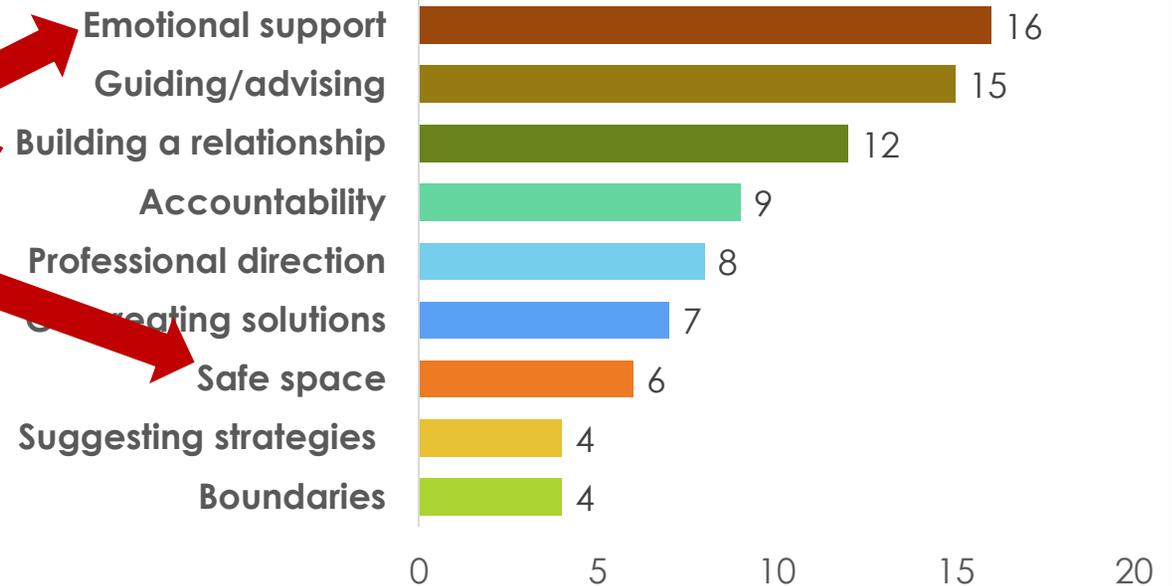


# Mentor Roles: **Social Support**

## \*CS3LD Mentor: Roles



Mentorship roles and number of mentor group meetings where the role was discussed

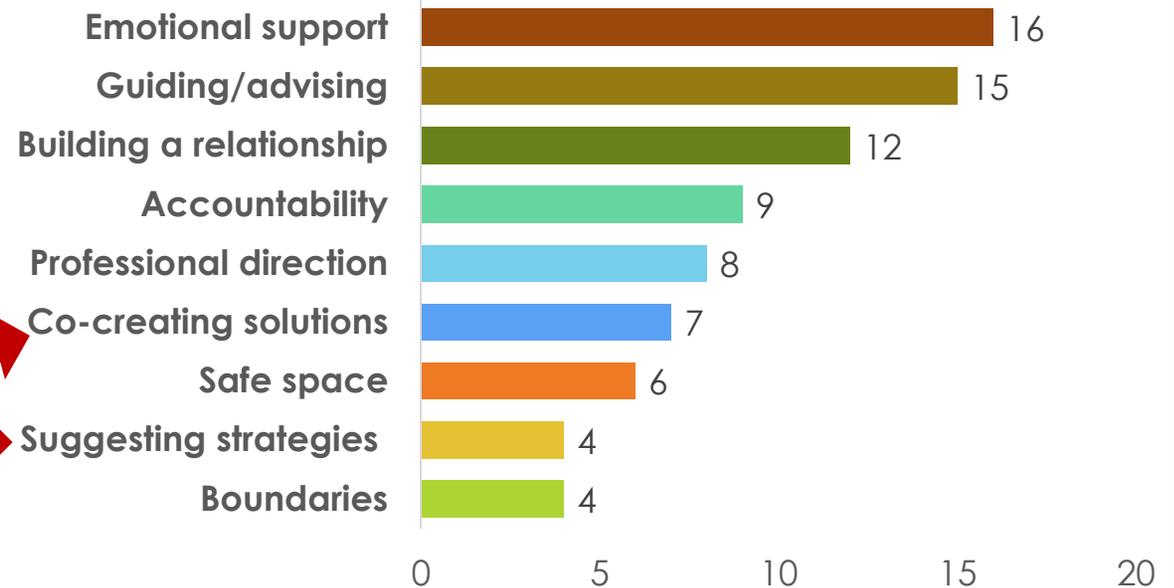


# Mentor Roles: **Empowerment Mentor**

## \*CS3LD Mentor: Roles

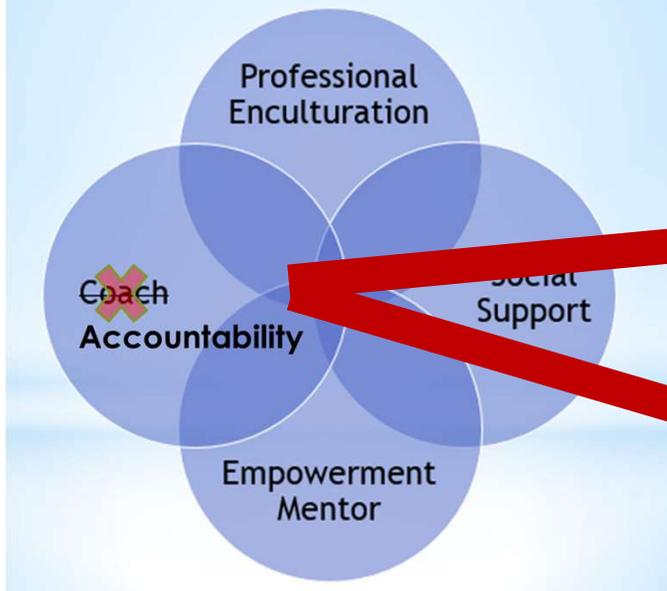


Mentorship roles and number of mentor group meetings where the role was discussed

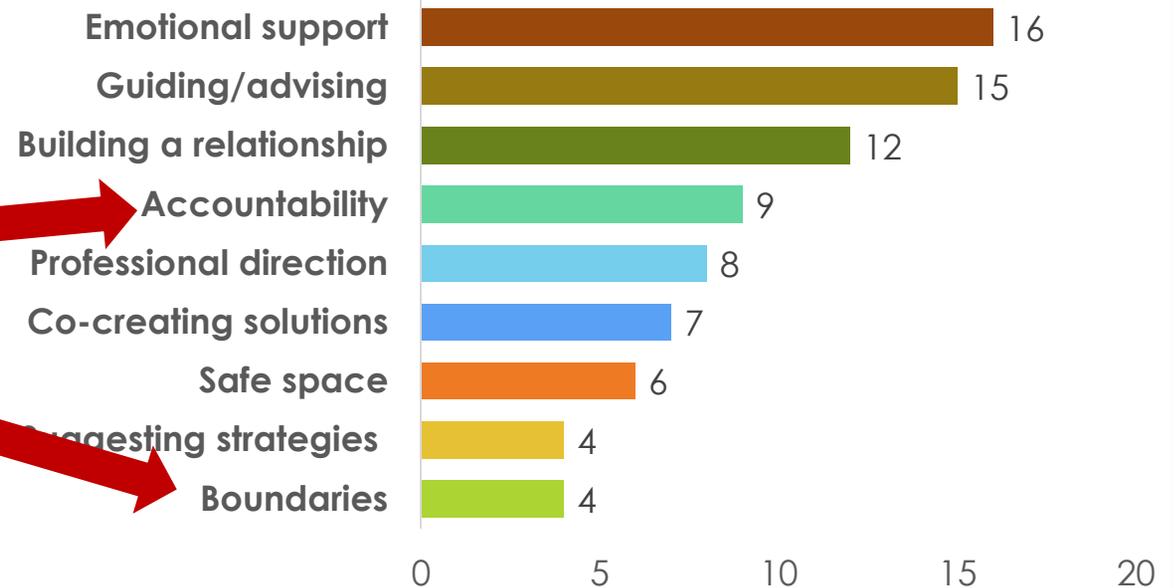


# Mentor roles: **Accountability**

## \*CS3LD Mentor: Roles



Mentorship roles and number of mentor group meetings where the role was discussed



# Applications and Implications

# Benefits Extend **Beyond the Mentee**

## **Better understanding of self-learning strengths & challenges**

*“I’ve become much more aware of how I learn and my own learning limitations, and being open about those so that I can open up a dialog with whoever I’m working with: In doing so, it has helped me avoid frustrating situations in all of my working relationships, not just those with LD.” [M109].*

## **Better in the classroom**

*“Not only am I much more aware and sensitive to the number of students with LDs, but I have become proficient at recognizing symptoms, allowing me [to] change teaching styles if necessary.” [M94].*

## **Better in the supervision of others**

*I hold myself to a higher standard now when it comes to dealing with students and my [research assistants] more generally. Even something as simple as asking my [research assistants] if the way that I’m training them is working, and how they learn best.” [M109].*

# What mentors didn't expect: **Important to Include in Disability-related Mentorship Training**

- ▶ Learned helplessness
  - ▶ Strategies to assist mentees
- ▶ Being the driving force of the mentorship
  - ▶ Being tolerant of LD/ADHD executive dysfunction symptomatology
- ▶ Strategies for coping with mentees' symptom manifestations
  - ▶ Being flexible
  - ▶ Understanding history of failures, insecurities/Imposter syndrome, inefficiency with communication
  - ▶ Different cognitive styles

## Takeaways: **Critical Components**

1. Intentional support for mentors in **better understanding the disability-related challenges** and **needs of their mentees** can be effectively and efficiently delivered via group meetings with disability content experts.
2. LD/ADHD-specific knowledge was leveraged by mentors **to benefit other non-mentee students** they worked with and helped their classroom instruction.
3. Mentors have to be **prepared for frustrations**
  - ▶ Scheduling
  - ▶ Symptom manifestations
  - ▶ Different cognitive style

# Questions

- ▶ Thank you!
- ▶ Contact information:
  - ▶ Consuelo Kreider: [ckreider@ufl.edu](mailto:ckreider@ufl.edu)
  - ▶ Sharon Medina: [sharonmedina@ufl.edu](mailto:sharonmedina@ufl.edu)

[www.kreiderlab.phhp.ufl.edu](http://www.kreiderlab.phhp.ufl.edu)