

“The Way I Learn”: Self-Awareness in University Students with Learning Disabilities and/or ADHD

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Population

- ▶ Students with disabilities comprise 10.8% of total undergraduate enrollment and 7.6% of graduate and professional school enrollment (National Center for Education Statistics, 2008).
- ▶ Learning Disabilities and ADHD account for about 40 % of that population (National Center for Education Statistics, 2008; Sparks & Lovett, 2009).

Learning Disabilities (LD)

Compared to their non-disabled peers, students with LD:

- ▶ tend to have more difficulty with reading (especially rate and comprehension) and writing tasks;
- ▶ require more time to study and complete projects;
- ▶ struggle to develop strong study skills (e.g., note-taking, test preparation);

Learning Disabilities (LD)

- ▶ and have difficulty with language learning resulting in poor spelling and problems with expressive and receptive oral language skills;
 - ▶ difficulty applying abstract mathematical ideas
- (Rath & Royer, 2002; Skinner & Lindstrom, 2003; Sparks, Javorsky, & Phillips, 2005; Sparks & Lovett, 2009; Trainin & Swanson, 2005).

Attention-Deficit Hyperactivity Disorder (ADHD)

Symptoms include **inattention**, **hyperactivity**, and **impulsivity**; research at the late adolescent and adult level suggests that inattention continues and hyperactivity decreases as a person gets older, implying that inattention is likely the most significant problem for college students with ADHD (Weyandt & DuPaul, 2008).

Attention-Deficit Hyperactivity Disorder (ADHD)

- Inattention can lead to:
- ▶ mistakes in schoolwork;
 - ▶ missed details;
 - ▶ difficulty following directions;
 - ▶ losing important materials;
 - ▶ avoidance of activities requiring too much sustained and focused attention;
 - ▶ numerous distractions that keep students from completing academic tasks (Sparks, Javorsky, & Phillips, 2005).

Attention-Deficit Hyperactivity Disorder (ADHD)

Students with ADHD may additionally struggle with motivation, anxiety, information processing, self-testing, concentration, and time management more than non-disabled peers (Reaser, Prevatt, Pescher, & Proctor, 2007).

Previous Related Studies

- ▶ Trainin & Swanson (2005)
Students with LD who are more strategic about their learning were academically on par with non-LD peers.
- ▶ Allsopp et al. (2005); Holzer et al. (2009)
Mnemonic devices taught to students.
- ▶ Stage & Milne (1996); Shessel & Reiff (1999)
Ethnographic interviews of adults with LD.

The Study - Research Questions

1. How do academically successful college students with LD and ADHD describe of their disability and their personal strengths and needs?
2. How do students describe the strategies they've developed to address their learning needs?

The Study – Research Questions

- 3. What role does self-advocacy play in the academic success of these students?

- 4. What support systems and networks help students attain and maintain academic success ?

The Study – Participants

- ▶ Twelve individuals
- ▶ Ages 18 –59
- ▶ Five men, seven women
- ▶ Eleven Caucasian, One African-American
- ▶ Eight undergraduate and four graduate students
- ▶ Three oldest students (ages 34, 38, and 59) were all doctoral students.

The Study – Participants

- Criteria:
- ▶ documented disability – LD or ADHD;
 - ▶ maintain a 2.5 (undergrad) or 3.0 (grad) GPA;
 - ▶ completed at least 1 year of college;
 - ▶ enrolled in a traditional 4-year institution of higher learning

Method – Data Collection

Responsive Interviewing – Based on an interpretive constructionist philosophy, responsive interviewing seeks to gather “how people view an object or event and the meaning that they attribute to it”(Rubin & Rubin, 2005, p.27).

Method – Data Analysis

Analysis with NVIVO Software – NVIVO 8 allowed the researcher to visually display participants’ responses coded by concepts such as “self-understanding and self-awareness” and to analyze across the responses to develop what Geertz (1973) refers to as a “thick description” – a nuanced and comprehensive portrait of the phenomenon under study.

Findings – Key Concept 1: Self-Understanding and Self-Awareness

- Participants exhibited:
- ▶ keen sense of own strengths and needs
 - ▶ the ability to articulate in-depth understanding of the way s/he learns best
 - ▶ awareness and anticipation of problems that might arise before they happen
 - ▶ subsequent ability to set goals and develop strategies

Findings – Key Concept 1: Self-Understanding and Self-Awareness

Reframing

Reframing involves recognizing one's own disability, understanding the nature of the disability, accepting the positive and negative aspects of the disability, and using this information to take action towards attaining both long and short term personal goals (Gerber et al., 1996).

Findings – Key Concept 1: Self-Understanding and Self-Awareness

Knowing my strengths
I have a good vocabulary, and I have good interpersonal skills, and...there's this – a part of me that says, "If somebody doesn't like it, that's tough." There's a part of me that is – I don't have any self-doubts that there's something wrong with me because I have a disability or anything like that. – *59-year-old male doctoral student, LD*

Findings – Key Concept 1: Self-Understanding and Self-Awareness

Knowing my needs and limitations
I can't remember formulas. I don't make sense of why [a problem] needs a certain formula or I easily mess up calculations. I can't do mental math of any sort, and so it was easier for me just to get worksheets that just had the same types of problems on them and just keep doing them over and over again until it's in my head. – *24-year-old female graduate student, dyscalculia*

Findings – Key Concept 1: Self-Understanding and Self-Awareness

Knowing how my disability manifests I guess just basically my learning disability is I have harder time processing auditory information. So I guess some examples where that affects me learning is...noisy environments because since I concentrate more on auditory things...I can't really cancel out those noises as well. - *21-year-old male undergraduate, auditory processing LD*

Findings – Key Concept 1: Self-Understanding and Self-Awareness

Knowing how I learn best I really have to sort of chew on the text, and really expand on it, and create the mental image really of what's going on. Sometimes it's really hard to create a mental image of what's going on because the text will even tell you, for engineering anyway, just remember this and don't think about why. But for me, it really helps me to remember what's going on if I know why. I have these connections, multiple connections of ideas sort of coming together. - *19-year-old male undergraduate, LD*

Findings – Key Concept 1: Self-Understanding and Self-Awareness

Using these areas of knowledge to set personal goals - Short-term goals We don't take tests. We write papers on what we read. Now because we write papers, it gives me room to make up for the stuff that I won't do when it's assigned because luckily I'm fairly good at writing papers, and I can go back then and figure out what I want to do, and then read accordingly. - *21-year-old female undergraduate, ADHD*

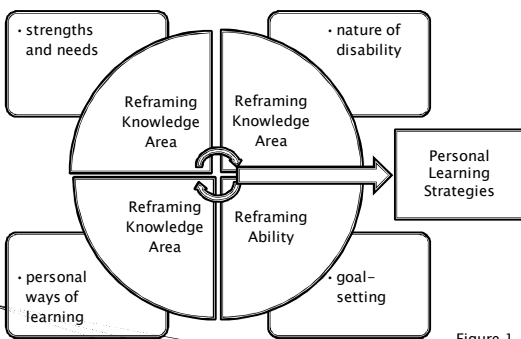
Findings – Key Concept 1: Self-Understanding and Self-Awareness

Using these areas of knowledge to set personal goals – Long-term goals

I have everything mapped out like what I should be doing freshman year for med school, what I should be doing sophomore year and junior year and senior year and when I should take the M-CAT and all that stuff... yeah, I have everything planned out so...

It makes me feel more comfortable 'cause I'm more organized. – 18-year-old female undergraduate, ADHD

Findings – Key Concept 1: Self-Understanding and Self-Awareness



Findings – Key Concept 2: Personalized Strategies

- ▶ Personalized to fit strengths, needs, ways of learning, and nature of disability
- ▶ Connected to goals students set for themselves
- ▶ Idiosyncratic
- ▶ Developed through process of trial and error
- ▶ Occasionally developed with the help of someone else, but primarily developed on own

**Findings – Key Concept 2:
Personalized Strategies**

Kinds of Strategies

- ▶ Organizational
- ▶ Problem-solving
- ▶ Reading
- ▶ Study
- ▶ Writing

**Findings – Key Concept 2:
Personalized Strategies**

Example 1. Organizational

“The List Maker”

Now I do the lists more because I like to cross things off and it's unbelievably satisfying to cross something off my list to the extent that I'll break them down to smaller things so that I can cross them off more 'cause that'll keep me going. - *21-year-old female undergraduate, ADHD*

**Findings – Key Concept 2:
Personalized Strategies**

Example 2: Reading

“The Color Coder”

I have different colors for different stuff...And like the reason I do this is 'cause I read fast and it's hard for me to comprehend...red is for kind of like interesting like personal tidbits...Green is for interesting sources, like stuff that I want to either look up or bring to the class...Orange is like just kind of for emphasis...purple and black, I kind of use just to like - something that's important in terms of like the timeline or something that I found particularly interesting or like entertaining...I've found that the different colors help me find stuff a lot.- *19-year-old female undergraduate, LD*

**Findings – Key Concept 2:
Personalized Strategies**

Example 3: Problem -Solving
"The Math Artist"

When I used to sit in math class, I used to draw a lot because I didn't - whatever I was listening to wasn't gonna stick anyways and I was always well aware of that, always. I'm very bad with just number recall and stuff like that, so I would just sit there and draw pictures, and a lot of times whatever the problem was, I would draw a picture of it and I started to realize there was a connection. - *24-year-old female graduate student, dyscalculia*

**Findings – Key Concept 3: Self-
Advocacy**

- ▶ Feelings of needing to "fend for oneself"
- ▶ Only using disability services when absolutely necessary
- ▶ Using services to learn independent skills
- ▶ Talking to professors
- ▶ Connections between having parents who were strong advocates and being able to advocate for self
- ▶ Importance of having disability recognized/identified and getting accommodations

**Findings – Key Concept 3: Self-
Advocacy**

Examples of self-advocacy in students' own words

I mean, one of the most obvious one is ...if they never submitted any kind of documents for extended time or anything, try to get somebody really good. Somebody you know who can write a decent report and explain your learning disability really well.- *21-year-old male undergraduate, LD*

Findings – Key Concept 3: Self-Advocacy

When I was in biostatistics, I was trying to basically fend for myself. Sometimes I wonder if I had gotten more help then or been able to get more help doing the theoretical part of statistics. It might have turned out differently.
– 38-year-old male doctoral student, LD

Findings – Key Concept 3: Self-Advocacy

I missed a final exam and I had to reschedule it and I didn't feel like going through the DRS, because they're kind of busy. I emailed my professor; I told them what was going on. I scanned a note and sent it to them, and we got me somewhere to take my test. When I miss stuff, I e-mail them. Really, any time you're having problems, you should tell the professor right away. And don't be afraid to ask them silly questions.
– 18-year-old female undergraduate, ADHD

Findings – Key Concept 3: Self-Advocacy

[D]on't be afraid to tell people, especially don't be afraid to tell a professor. I mean, some professors are gonna have an attitude about it, but they're sufficiently scared of the law that they're usually going to go along...– 59-year old male doctoral student, LD

Findings – Key Concept 4: Support Networks

- ▶ Many successful students had supportive family members and/or friends.
- ▶ Importance of establishing “networks”
- ▶ Disability services were only helpful when appropriately tailored to meet students’ needs.

Findings – Key Concept 4: Support Networks

Parents and diagnosis
Mostly, I think the biggest was [my mother] recognizing I have a learning disability and that getting it tested and realizing the accommodations are really gonna be an important factor. So I think she has the same learning disability, but even when she went to school, they didn't really know it was a learning disability then...So I guess she recognizes that I have the same thing that she does and she's pretty active in getting me tested in everything - *21-year-old male undergraduate, LD*

Findings – Key Concept 4: Support Networks

Parents and transition
My mom actually has always been sort of active in my - with my disability, so I know that - I'm not sure what the details were actually on the transition from high school to college but I know that the university offered these services. My mom had told me 'cause these services were available and so I found out about the Disabilities Resources and Services, and I went there- *19-year-old male undergraduate, LD*

Findings – Key Concept 4: Support Networks

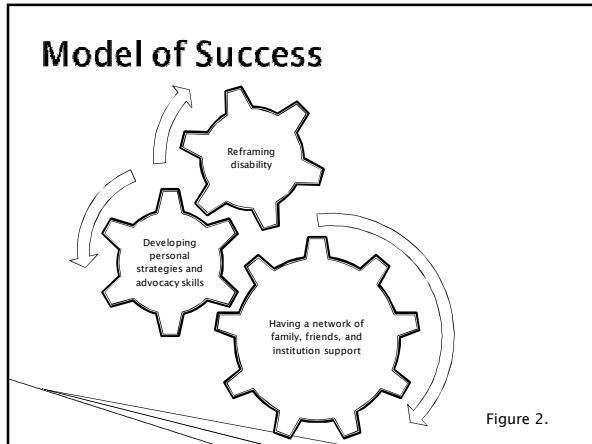
Friends and encouragement/emotional support
Well, D_ came to get me. I left the campus,
and I wasn't coming back. I was hanging out in
Riverside with my friend S_, and she came and
got me, and she's like, "No, you're gonna come
back, and you're gonna face it and figure out a
way." – 34-year-old female doctoral student,
ADHD

Findings – Key Concept 4: Support Networks

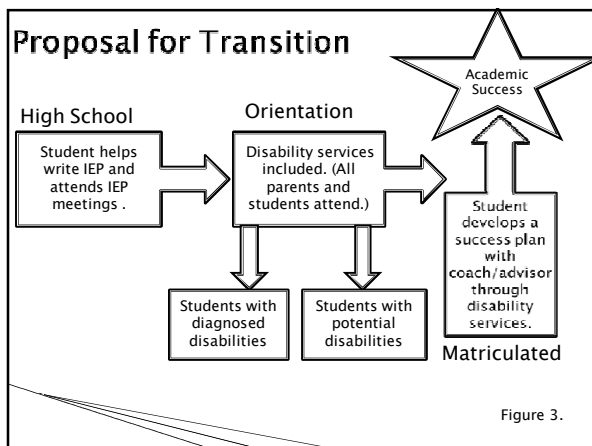
Supportive services build independence
They made lists for me. They went over stuff with me,
figured out like where I wasn't spending enough time
or stuff that I needed to do. Just put it in writing
really...honestly, I think it's kind of something you
should be able to do on your own. Even though they
are really organizing you, it doesn't really help if you
can't do it yourself...The less you rely on other people
to do those things for you, I think the better. Just
because you have all the accommodations in the world
doesn't mean you should use them as much as
possible. – 18-year-old female undergraduate, ADHD

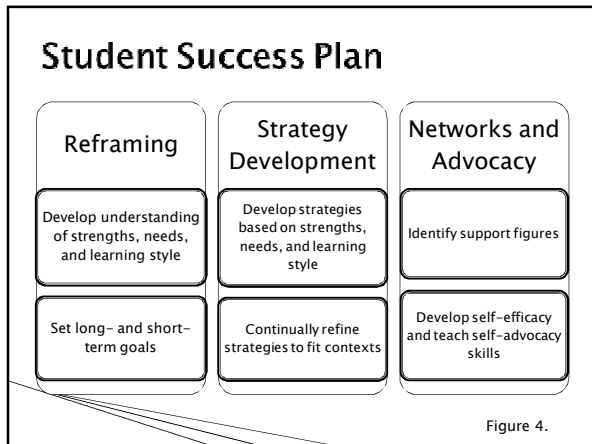
Findings – Key Concept 4: Support Networks

Services not tailored to students' needs are
not helpful
And I met with a woman a couple of times, and it
caused me more stress than anything, because it
was really frustrating. She's trying to help me
organize, and I guess usually people go in there and
they have no clue on how to organize, but I do know
how to organize. And she pulled out a calendar, and
she blocked off times when I was gonna do this or do
that, like a weekly schedule. And she was like, "These
are things you have to do on a regular basis," but it was
just almost pedantic because I know that stuff. You
don't know how many self-help books I've read – 34-year
old female doctoral student, ADHD




- ### Implications
- ▶ Students should be given support to develop a deeper understanding of their own disability, personal strengths, needs, and ways of learning most effectively.
 - ▶ This understanding can be used to help students develop effective strategies personally tailored to their needs.
 - ▶ Students need independent learning and self-advocacy skills.
 - ▶ In the transition process, it would help to identify family members or other supportive figures.





Avoid Mr. Magoo Syndrome

I remember the cartoon, *Mr. Magoo*. Everybody else could tell he could barely see, but he didn't know it. It was funny, but in real life, no that's not funny. - *38-year-old male doctoral student, LD*



Questions?
