



BACKGROUND

- College students with learning disabilities (LD) and/or attention-deficit hyperactivity disorders (ADHD) face challenges when managing academics as well as social and occupational performance^{1,4}.
- Skills are observable, goal-directed actions that an individual uses while performing².
- Attributes are more innate, personal qualities that a person already possesses but can be changed or improved³.
- Students with LD/ADHD require self-regulation skills for effectively managing daily tasks, which may be impacted by LD/ADHD symptoms⁵.
- Purpose:** Identify skills and attributes described by undergraduates with LD/ADHD in meeting occupational performance demands across the multiple contexts experienced as a college student.

METHODS

- Qualitative analysis was used to identify salient skills employed by undergraduates with LD/ADHD who were enrolled in a larger study that tested campus-based supports for students with LD/ADHD.
- The analysis includes 25 undergraduate students with LD and/or ADHD.
- Participants met as a cohort where disability-related psychoeducational content was presented followed by focused discussion.
- Data were transcripts (N = 16) from undergraduate cohort meetings over two academic years.
- Structural coding was first used to identify salient skills and strategies.
- Focused coding was used to further label the salient skills and examine in what context each skill or attribute was used. Skills and attributes were coded in more than one context if necessary.
- Rigor was enhanced by the use of peer debriefing, using multiple coders, and achieving consensus among researchers.

DISCUSSION & CONCLUSION

- Study findings indicate 17 salient skills and attributes were employed by undergraduate students with LD and/or ADHD across six contexts.
- Self-awareness is the only skill/attribute employed across every context, illustrating its importance in the everyday life of our participants. Self-awareness may contribute to the implementation of other skills/attributes related to specific situations and contexts.
- The nature of the discussions that centered on participants' experiences specific to psychoeducational material presented indicates that the school/academic context encompasses all salient skills found. This highlights the broad skillset needed to meet the expectations associated with the many facets of the college student role^{5,7}.
- Findings indicate that salient skills/attributes can be generalized and understood across various contexts for college students with LD and/or ADHD⁶.
- Findings can be used to develop and/or refine occupational therapy interventions to aid college students with LD and/or ADHD in developing and applying these skills and attributes within different contexts to maximize their ability to manage daily tasks.

RESULTS

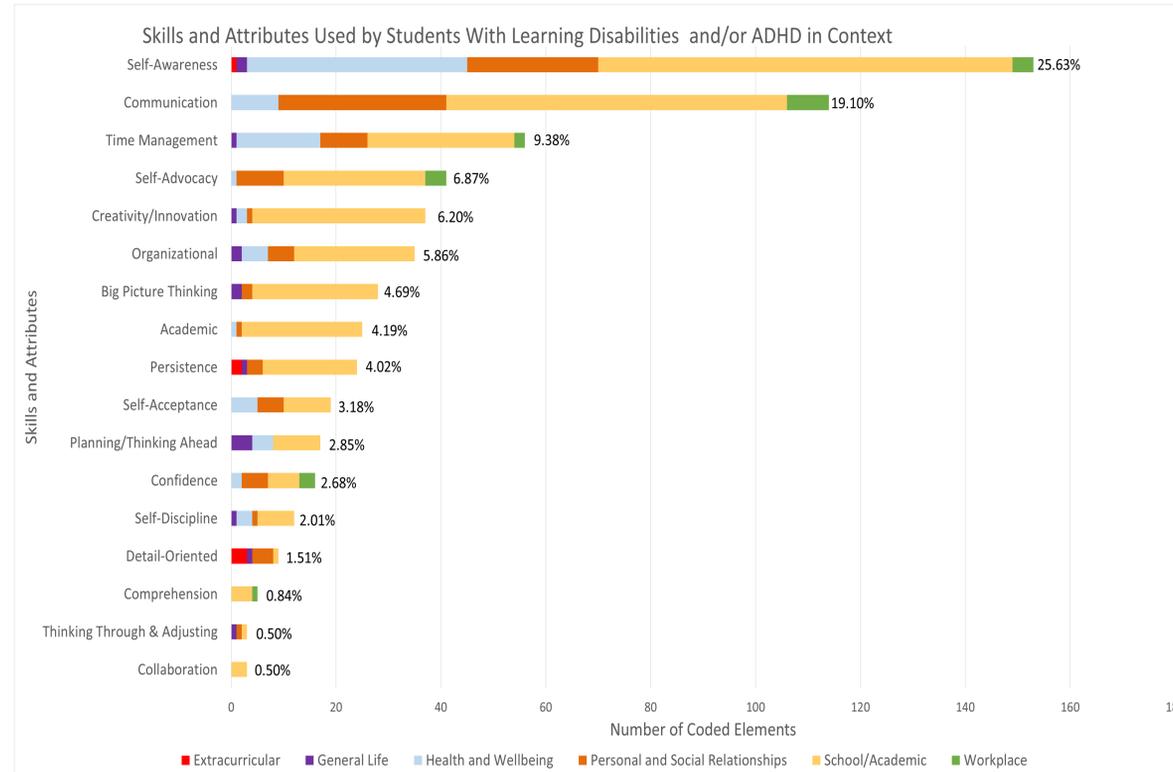


Figure 1. Skills/attributes used by students with LD/ADHD in context



Figure 2. Contexts in which skills/attributes are implemented for students with LD and/or ADHD

Table 1. Definitions of skills/attributes by students with LD and/or ADHD

Skills/Attributes	Definition Ability to...
Academic	Excel in coursework and specific university subjects (i.e. math, reading, writing, etc.)
Big Picture Thinking	See the larger goal, make connections to reach a larger goal, and apply information to see larger ideas
Collaboration	Work with other people in order to achieve a goal
Communication	Exchange thoughts and ideas with others and explain their learning disability and/or ADHD clearly and concisely
Comprehension	Understand and simplify concepts
Confidence	Be self-assured, assertive, and unafraid to stand out
Creativity/Innovation	ability to solve problems or view difficulties in a unique way and adapt procedures in order to succeed
Thinking Through & Adjusting	Reflect and think through past experiences of self or others in order to adjust potential courses of action(s) in order to create better outcomes when similar situation arises
Detail-Oriented	Focus on tasks in the moment or see and understand smaller elements of a larger goal or plan
Organizational	Coordinate and structure tasks
Persistence	Persevere despite obstacles and pursue a goal
Planning /Thinking Ahead	Prepare for future tasks or situations and anticipate future circumstances
Self-Acceptance	Accept all aspects of oneself, including differences due to a learning disability and/or ADHD
Self-Advocacy	Convey and stand up for one's interests and needs
Self-Awareness	Know oneself, including strengths, weaknesses, skills, effective strategies, and manifestations of one's learning disability and/or ADHD
Self-Discipline	Motivate oneself to complete certain tasks and inhibit impulsive or distracting behaviors
Time Management	Regulate and manage time and schedules

Self-Awareness
"So in return I seek out what makes me happy, which is like just to socialize because I'm an extrovert so I have to. I love talking. I like bringing up—feeling happy." –U29

Thinking Through & Adjusting (for Better Outcome Next Time)
"...I learn off of my friends sometimes...if it's not effective for them and I try it out...I learned from this and I'm going to try something else." –U36

Collaboration
"And when me and U46 had to take Stats together the first time as far as like bouncing ideas off each other, group work really helps us." –U30

Communication
"I like to ask questions and go to office hours...Sometimes talking about different aspects of it or just talking about it in a different way than it was presented in class helps me make my own connections or relate to things that I hadn't before." –U09

Figure 3. Representative quotes

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REFERENCES

- Cortiella, C. & Horowitz, S. H. (2014). The State of Learning Disabilities: Facts, Trends, and Emerging Issues (3rd ed.). New York: National Center for Learning Disabilities.
- Kielhofner, G. (2008). *Model of Human Occupation: Theory and Application* (4th ed.).
- Merga, M.K., Mason, S., & Morris, J.E. (2019). "The constant rejections hurt": Skills and personal attributes needed to successfully complete a thesis by publication. *The Association of Learned & Professional Society Publishers*, 32(3), 271-281. doi:10.1002/leap.1245
- Sharfi, K. & Rosenblum, S. (2016). Executive Functions, Time Organization and Quality of Life among Adults with Learning Disabilities. *PLoS ONE*, 11(12): e0166939. doi:10.1371/journal.pone.0166939
- Kreider, C. M., Medina, S., Lan, M. F., Wu, C. Y., Percival, S. S., Byrd, C. E., ... & Mann, W. C. (2018). 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. *Frontiers in psychology*, 9. Sparks, R.L. & Lovett, B.J. (2009). College Students With Disability Diagnoses: Who Are They and How Do They Perform? *Journal of Learning Disabilities*, 42(6), 494–510. doi:10.1177/0022219409338746
- Skinner, M. E. (2004). College Students with Learning Disabilities Speak Out: What It Takes to Be Successful in Postsecondary Education., *Journal of Postsecondary Education and Disability*, 17(2), 91-104.

