



## Research Paper

Recommended citation: Oquendo-Colon, N. O., Li, X., Zaheer, M., & Finelli, C. J. (2025). The Role of Instructional Practices on the Academic Adjustment of Engineering College Students with Attention Deficit and Hyperactivity Disorder (ADHD). In Kangaslampi, R., Langie, G., Järvinen, H.-M., & Nagy, B. (Eds.), SEFI 53rd Annual Conference. European Society for Engineering Education (SEFI), Tampere, Finland. DOI: 10.5281/zenodo.17631602.

This Conference Paper is brought to you for open access by the 53rd Annual Conference of the European Society for Engineering Education (SEFI) at Tampere University in Tampere, Finland. This work is licensed under a Creative Commons Attribution-NonCommercial-Share Alike 4.0 International License.

# THE ROLE OF INSTRUCTIONAL PRACTICES ON THE ACADEMIC ADJUSTMENT OF ENGINEERING COLLEGE STUDENTS WITH ATTENTION DEFICIT AND HYPERACTIVITY DISORDER (ADHD)

N.O. Oquendo-Colón<sup>a,1</sup>, X. Li<sup>b</sup>, M. Zaheer<sup>c</sup>, C.J. Finelli<sup>d</sup>

<sup>a</sup> University of Michigan, Ann Arbor, MI, United States, 0000-0003-2369-6103

<sup>b</sup> University of Michigan, Ann Arbor, MI, United States, 0000-0002-2620-1690

<sup>c</sup> University of Michigan, Ann Arbor, MI, United States

<sup>d</sup> University of Michigan, Ann Arbor, MI, United States, 0000-0001-9148-1492

**Conference Key Areas:** *Improving higher engineering education through researching engineering education, Diversity, equity and inclusion in our universities and in our teaching*

**Keywords:** *active learning, ADHD, engineering college students, lecture*

## ABSTRACT

This paper presents a study on how instructional practices impact the academic adjustment of engineering college students with Attention-Deficit/Hyperactivity Disorder (ADHD). While ADHD brings unique cognitive strengths, traditional academic environments—especially in engineering—can pose challenges. Existing research highlights the difficulties faced by students with ADHD during the transition to college, but few studies explore how specific instruction affects their adjustment. This study addresses that gap by examining how lecture-based and active learning approaches support or hinder students' academic adjustment, including academic transition and study skills. Guided by our conceptual framework, we address the question: *How do specific instructional practices impact the academic adjustment of engineering students with ADHD?* Through thematic analysis of interviews with engineering students with ADHD, we found that both lecture-based and active learning instructional settings present challenges to students' academic adjustment and that students' study skills (one element of academic adjustment) are especially affected by type of instruction.

## 1 INTRODUCTION

Attention-Deficit/Hyperactivity Disorder (ADHD) can significantly shape how engineering college students navigate academic life, particularly influencing their academic adjustment—the process of adapting to new learning environments, managing study skills, and meeting institutional expectations (Credé & Kuncel, 2008;

---

<sup>1</sup> *Corresponding Author*  
N. Oquendo-Colón  
noquendo@umich.edu

Tinto, 1993; Pascarella & Terenzini, 2005; Taylor et al., 2020; Taylor & Zaghi, 2022). While students with ADHD often demonstrate strengths in creativity and innovative thinking—qualities relevant to engineering—they may struggle to align their learning approaches with traditional academic structures (Lagacé-Leblanc et al., 2025; Lefler et al., 2016; Taylor et al., 2020). When instructional practices fail to accommodate the unique needs and strengths of these students, their ability to adjust academically may be further impeded.

Research has highlighted the importance of instructional practices in students' academic success. For example, instructors can use supportive communication to build positive rapport (Perry & Franklin, 2006), employ active learning strategies to address difficulties with passive instruction (Lefler et al., 2016; Prince, 2004), set clear course objectives to increase transparency (Winkelmes, 2023), provide high-quality feedback to help students monitor their progress (Angelo & Cross, 1993; Lefler et al., 2016; Perry & Franklin, 2006; Stiggins, 2002), and highlight the relevance of course content to sustain motivation (Lefler et al., 2016; Sedgwick et al., 2019). However, there is a gap in existing research as few studies have delved into how students with ADHD are influenced by particular instructional practices. This study responds to that gap by investigating how lecture-based and active learning environments affect students' ability to adapt and succeed in their academic setting.

## **2 METHODOLOGY**

### **2.1 Conceptual Framework**

The conceptual framework guiding this study is illustrated in Figure 1. In our broader research, we examine the relationships between individual student experiences (i.e., classroom experience, academic adjustment, and sense of belonging) and academic success (Li et al., 2025; Oquendo-Colón et al., 2023, 2024); while for this project, we focus specifically on the relationship between instructional practices and academic adjustment. Given the substantial evidence supporting the benefits of active learning over lecture-based instruction, we examine two types of instruction: (1) lecture-based, in which the instructor delivers content while students passively receive information, and (2) active learning, which engages students through discussions, group work, and problem-solving activities. Drawing from our previous work, we explore two key components of academic adjustment: (1) academic transition, defined as the process of adapting to new academic phases, including changes in roles, routines, and relationships (Schlossberg, 2005), and (2) study skills, referring to the techniques used to complete learning tasks (Gall et al., 1990), such as time management, organization, note-taking, and test preparation (Li et al., 2025; Oquendo-Colón et al., 2023, 2024).

### **2.2 Participants**

After receiving approval from our Institutional Review Board (IRB), we recruited engineering college students with ADHD at a research-intensive institution located in the Midwestern United States. We emailed a random sample of 1,800 of the 11,104 enrolled engineering students, inviting them to participate in our study if they had previously received a formal ADHD diagnosis. We collected participants' demographic information using an in-take survey. We asked students to indicate whether they had previous experience lecture-based instruction and/or active learning instruction and, if they had, to participate in either (1) a focus group addressing lecture-based instruction and/or one addressing active learning or (2) an

interview addressing both types of instruction. A total of 26 engineering students with ADHD participated in the study.

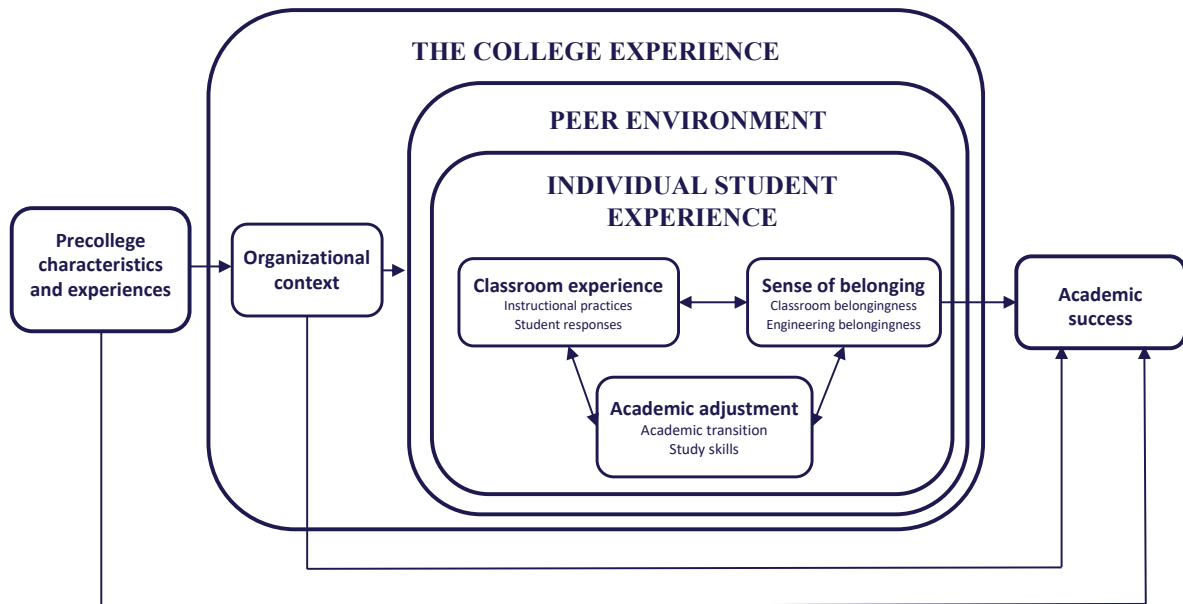


Fig. 1. Conceptual framework (Oquendo-Colón et al., 2023), based on Terenzini and Reason's College Impact Model (Terenzini and Reason, 2005)

## 2.3 Data Collection

We conducted nine 90-minute focus groups (four addressing lecture-based instruction, with 13 total participants, and five addressing active learning, with 18 total participants) and six 60-minute individual interviews (addressing both types of instruction). The focus groups were held either in person or via Zoom, while the individual interviews were conducted exclusively through Zoom. For both the focus groups and interviews, we provided a handout at the start of each session to define key terms and present our framing of the *individual student experience* to ensure participants' understanding of relevant research elements (Oquendo-Colón et al., 2024). Using a semi-structured protocol, we then explored three main aspects of the individual student experience (classroom experience, sense of belonging, and academic adjustment). Lastly, we invited participants to share any additional thoughts. In this study, we focus on the relationship between instructional practices (one element of the classroom experience) and both academic transition and study skills (the two elements of academic adjustment).

## 2.4 Data Analysis

We transcribed all focus group and interview data verbatim, anonymized the data, and used MAXQDA24 (Gizzi and Rädiker, 2021) to analyze them. In the first round of coding, we used a deductive approach (Saldaña, 2016) to develop a codebook based on pre-defined codes from our conceptual framework. Specifically, four researchers independently coded the transcripts, collaboratively refined the codebook, and reviewed the codes to ensure inter-coder reliability. In the second round of coding, we adopted an inductive approach to identify and categorize emerging themes. This second part of the analysis involved three researchers.

## 3 RESULTS

Here, we summarize the key findings of our research.

### 3.1 Academic transition

The transition from high school to college presents distinct challenges for engineering students with ADHD, particularly in adapting to new academic expectations, study demands, and instructional formats. Participants in this study reflected on how both lecture-based and active learning environments shaped their academic transition, influencing their learning strategies, motivation, and ability to manage course expectations.

Lecture-based instruction was a central feature of students' early undergraduate experience, often providing the structure and predictability that facilitated their initial adjustment. Camila noted that this format helped her remain in engineering:

*"...mostly my freshman and sophomore years, all of the courses were lecture-based, ... and I think I do a lot better with the lectures and strict deadlines."* However, the transition to college revealed gaps in students' academic preparation. Clara shared, *"...and then college, it's different. I actually do have to study, and since I've never studied, I don't know how to."*

Some students also reflected on shifting dynamics with instructors, moving from high school environments that emphasized personal accountability to college settings that required greater self-direction. For others, lecture-based courses were cognitively demanding and less compatible with previously effective learning strategies.

Alejandro discussed the exhaustion associated with exam preparation during his undergraduate years, although he reported developing more effective strategies in graduate school. Similarly, Leo explained that the passive learning approaches that had worked in high school—such as *"learning by osmosis"*—were no longer effective in college, requiring greater intentionality. Rose, diagnosed with ADHD during college, found the unspoken academic expectations especially challenging. Despite these challenges, students like Victoria and Gabriel adapted over time, refining their study approaches and relying on peer collaboration to succeed.

In terms of courses featuring active learning, students reflected on how the instructional practices influenced their academic transition. For some, transitioning from hands-on, project-based high school environments to more exam-heavy college courses was difficult. Isabel shared, *"In high school curriculum was all interactive and hands-on projects... I never took finals or exams in high school, which didn't help when I got to college... I was learning so much better in high school because of that environment."*

To manage the adjustment, Valentina reduced her course load to reassess her approach and develop more effective strategies. Others, like Samuel and James, noted that college required greater self-direction. James described a strategy he developed to synthesize and organize material: *"One thing I started doing last year was I would go back through all my notes and write the big ideas in order... and try and connect the practice problem... to those specific ideas."* While some students adapted successfully, others found active learning environments stressful, particularly in competitive courses. Amelia adopted early-start strategies to keep pace with peers but expressed concern about the pressure such cultures created. David emphasized that college required more abstract thinking and independent engagement with complex material—often without explicit guidance—marking a significant shift from the structured learning of high school.

## 3.2 Study skills

In terms of study skills, we identified four key categories, which we describe here.

### 3.2.1 Note-taking

Note-taking emerged as a critical strategy for both engagement and comprehension, particularly in **lecture-based** courses. Several participants emphasized the value of handwritten notes over digital tools, citing improved focus and retention. Participants also discussed note-taking formats, such as using traditional pen and paper and involving digital devices. Camila, for example, noted that writing by hand facilitated active engagement during lectures and supported later information processing. While handwritten notes were preferred by many, some students used digital tools to support their learning. Valentina shared her experience using an iPad, highlighting its convenience and portability, even though it initially affected her retention: *"I solely used the iPad, I didn't retain anything, that it's light, and I don't have to carry around a ton of notebooks so what I found that I think, works better."* Others, such as Isabel, emphasized the importance of integrating note-taking with broader study strategies, including reviewing lecture notes alongside course materials and using them to develop questions for office hours.

Note-taking was also an essential study skill in **active learning environments**, though participants reported mixed experiences with its effectiveness. Some, like Valentina, acknowledged past challenges with digital note-taking and made deliberate changes to their strategies in response. Others maintained a more conventional approach, using note-taking selectively based on the nature of the content. Ava explained: *"I think, for me a lot of it is like note taking. There's some stuff where it's like memorization that you kind of just have to go through or typically you have like a cheat sheet or whatever for exams you just put it on there."* Additionally, Isabel described how clarity from instructors regarding exam content helped her focus her note-taking efforts more effectively. This points to the role of instructor guidance not only in shaping learning expectations but also in supporting students' strategic engagement with course material.

### 3.2.2 Time management and organization

Time management and organization emerged as significant challenges for many participants, particularly in **lecture-based** courses. Several students described employing structured systems to manage their academic responsibilities and stay on track. Lucia, for example, used Google Calendar to plan study sessions, allocate time for coursework, and include breaks to maintain focus and productivity. Similarly, Alejandro adopted a highly regimented scheduling approach, organizing his study time around credit hours and adjusting for major deadlines. He also emphasized that fixed deadlines were particularly helpful in managing his ADHD: *"I don't like flexibility on deadlines, uh I don't know if this is healthy or not if it's just my coping mechanism. I think that having a deadline helps a lot because it's something that it doesn't move it's something that you attach to."*

While structured strategies like calendars and fixed deadlines were often effective, many students still struggled with time management, particularly in **active learning** settings. Some, like John, reported difficulty conceptualizing time, leading to last-minute studying, while James found lenient deadlines hindered his ability to stay on track: *"Professors who are ...more or less lenient on deadlines ...that's what I'd say I really really struggled with."* Evelyn and Levi also noted that smaller, clearly defined

tasks were easier to manage than large, open-ended ones. For others, active learning environments helped improve time management by offering consistency and engagement through weekly assignments and collaborative problem-solving. Maria appreciated regular deliverables, while Levi found these settings aligned with his strengths: *"[Active learning aligned with my study skills] pretty good, I'd say especially when I was ahead and I could help talk through problems with people and help them learn the material."* Alejandro described how an active learning course taught him to be more flexible despite variable workloads: *"I think that it helped me have a more flexible uh schedule and time management... it was an important class for me."* Similarly, Lucia noted that solving problems in class reduced the need to study outside of class.

### **3.2.3 Test preparation**

In **lecture-based** courses, students employed a variety of test preparation strategies, ranging from passive review of notes to more structured exam simulations. Several participants, including Sofia and Camila, reported relying on reviewing handwritten notes and summarizing key concepts, often without extensive preparation. Other students emphasized the value of practice exams and problem-solving exercises in promoting deeper understanding and retention. John noted, *"Courses that force you to do practice problems or homework and stuff do help you stay engaged with the content and help with studying."* When available, well-structured resources such as past exams, lecture recordings, and problem banks significantly supported students' preparation. However, the absence of such materials created frustration and uncertainty for some students. Eva expressed difficulty preparing for exams when there was a mismatch between class content and test expectations: *"...we'd get an exam where we had to apply the theoretical stuff to a problem we've never seen before, and never had a homework problem over on the exam, and that was so horrible, it was really really awful."*

In **active learning** environments, test preparation strategies varied widely across participants. Several students emphasized the usefulness of practice exams and embedded problem-solving activities in reducing anxiety and clarifying expectations. Ava described how course structure supported her study habits: *"I like looking for example problems, looking for stuff to review and I think that it just, the way that he structured the class. It just makes it easier to do that and easier to understand what's expected of you and what might show up on the exams."* Isabel also found that active learning formats better aligned with her study strategies, particularly when practice problems were closely tied to exams. At the same time, some students still encountered difficulties. Olivia noted struggles with procrastination and information retention, while Owen described challenges in navigating test preparation under pressure, especially when faced with dense material. Despite the availability of clear and concise lecture notes, he found it difficult to discern which details were essential, contributing to test anxiety: *"Our professor is super organized, his lecture notes are actually very clear, concise... but for me it's like I could go read all of the notes, Oh, I need to remember this one small, tiny detail that I probably don't need to, I just like spiral really easily and get anxious."*

### **3.2.4 Instructional practices alignment with study skills**

Students' experiences with **lecture-based** courses varied in terms of how well the format aligned with their study skills. Some students reported that lecture-based instruction had minimal impact on their study approach. For example, Lucia shared

that she relied on her own strategies to compensate for moments of inattention during lectures: *"I wouldn't say that the format had an influence on my study skills....overall I'm able to complete all my work and do pretty well."* Similarly, Victoria indicated that her study methods remained largely independent of course format, with most of her learning occurring outside of class. Conversely, other students found that lecture-based formats required them to adapt their study strategies. Ana noted that the lack of regular assignments forced her to develop stronger self-regulation, though it remained a challenge. Sofia expressed that while lecture-based courses often required additional time for studying outside of class, their effectiveness depended on the availability of well-designed instructional resources, helped guide her study process: *"I think one of the keys for me in that course is that they had the problem sets out there earlier for the homework and I would always use that as my judgment of have I learned the material... that is really like my study guide for learning the material..."*

Many students found that **active learning** formats better supported their study skills, particularly when class activities involved peer interaction and problem-solving. Mariana and Ella both described how these environments promoted engagement and knowledge retention, with Ella stating: *"For me, I'd say at it, it allowed me to, uh, take in skills from other students because I could interact with them."* Students like Isabel and Camila also preferred active learning formats, finding them more compatible with how they studied. Several participants mentioned that active learning helped them develop new strategies. Luna reflected on how her approach shifted in a course where students taught lessons, prompting her to seek clarification and collaborate more effectively: *"I felt like I, instead of trying to just figure it out by myself, I should ask the student who taught that lecture to me like questions to see if we can get to some sort of understanding faster... and so that's something that definitely changed my studying habits for that class specifically."* However, not all students found a strong connection between active learning and their study skills. Paul noted that while active learning increased in-class engagement, it did not fundamentally change his approach to studying.

#### **4 DISCUSSION AND CONCLUSIONS**

This study examined how lecture-based and active learning instructional practices influence the academic adjustment (i.e., academic transition and study skills) of engineering students with ADHD, filling a gap in existing literature. The findings illustrate that while both environments present unique opportunities, they also pose specific challenges during the critical transition from high school to college, during their undergraduate years, and from undergraduate to graduate. Lecture-based instruction provided students with structure and predictability, which many found especially helpful during their early undergraduate years. However, these courses also demanded a higher level of self-regulation than students were accustomed to in high school, requiring them to develop new study strategies and manage learning more independently. In contrast, active learning environments promoted engagement and collaborative problem-solving, yet some students struggled with less structured formats, competitive classroom cultures, and fluctuating workloads. These experiences reinforce prior findings on the complex academic demands students with ADHD face and the importance of developing adaptive strategies to meet them (DuPaul et al., 2017).



Across both instructional formats, **note-taking, time management, and test preparation** emerged as central components of students' academic adjustment. In lecture-based settings, handwritten note-taking supported focus and later review, aligning with prior research on the cognitive benefits of active encoding. Some students preferred digital tools for their convenience, though experiences with retention varied. In active learning environments, students adapted their note-taking to more interactive settings, selectively focusing on core concepts and peer collaboration. **Time management** proved challenging in both environments, but for different reasons. Lecture-based courses often offered fixed deadlines and structured assessments, which many students—particularly those with ADHD—found helpful for maintaining focus and staying organized (Kreider et al., 2019). Active learning formats, while potentially more engaging, sometimes lacked consistency in workload and pacing, requiring students to manage their time more flexibly. Some students thrived in this environment, while others found it overwhelming. **Test preparation** strategies also diverged. Students in lecture-based courses often relied on notes and summaries, with success hinging on the availability of clear supplementary materials. When such resources were lacking, students expressed confusion and anxiety about assessment expectations. In contrast, active learning environments that incorporated regular problem-solving and practice exams helped students consolidate knowledge and reduce test anxiety—consistent with prior research on retrieval-based learning and formative feedback (Roediger & Karpicke, 2006; Nelson et al., 2014). However, some students still found it difficult to manage the volume of content or determine what to prioritize.

Taken together, these findings highlight that instructional practice alone does not determine success. Rather, students' academic adjustment is shaped by how well course design aligns with their learning needs, study habits, and executive functioning capacities. This underscores the importance of offering **clear structures, consistent feedback, and opportunities for active engagement**—regardless of instructional practice. For students with ADHD, the presence of external supports like fixed deadlines, accessible materials, and in-class collaboration can make a significant difference in navigating academic demands. Future instructional practices in engineering education should consider these insights to foster more inclusive classrooms. Our study has clear implications for instructors, as they can play a critical role in students' academic adjustment. Specifically, our findings suggest that instructors should support students' study skills by providing structured yet flexible note-taking resources, enhance time management through clear and consistent communication of expectations and deadlines, and improve test preparation by aligning in-class activities with assessment formats and offering targeted review materials—all while considering the unique needs of students with ADHD and fostering inclusive learning environments in both lecture-based and active learning settings. Doing so can better support not only students with ADHD but a broader range of learners navigating the complex landscape of higher education.

## 5 ACKNOWLEDGEMENTS

We would like to acknowledge all the participants in our study and the U.S. National Science Foundation for their support of this research (Grant # 2043430).

## REFERENCES

- Angelo, T., & Cross, P. (1993). *Classroom assessment techniques: A handbook for college teachers (2nd edition)*. San Francisco, CA: Jossey-Bass.
- Credé, M. and Kuncel, N. R. (2008). Study habits, skills, and attitudes: The third pillar supporting collegiate academic performance. *Perspectives on Psychological Science*, 3(6), 425-453. <https://doi.org/10.1111/j.1745-6924.2008.00089.x>
- DuPaul, G. J., Dahlstrom-Hakki, I., Gormley, M. J., Fu, Q., Pinho, T. D., & Banerjee, M. (2017). College students with ADHD and ID: Effects of support services on academic performance. *Learning Disabilities Research & Practice*, 32(4), 246-256. <https://doi.org/10.1111/ldrp.12143>
- Gall, M. D. (1990). *Tools for Learning: A Guide to Teaching Study Skills*. Association for Supervision and Curriculum Development, Alexandria, VA.
- Gizzi, M. C., & Rädiker, S. (Eds.). (2021). *The practice of qualitative data analysis: Research examples using MAXQDA*. BoD–Books on Demand.
- Gormley, M. J., DuPaul, G. J., Weyandt, L. L., & Anastopoulos, A. D. (2016). First-year GPA and academic service use among college students with and without ADHD. *Journal of Attention Disorders*, 23(14), 1766-1779. <https://doi.org/10.1177/1087054715623046>
- Green, A. L. and Rabiner, D. L. (2012). What do we really know about ADHD in college students?. *Neurotherapeutics*, 9(3), 559-568. <https://doi.org/10.1007/s13311-012-0127-8>
- Kreider, C., Medina, S., & Slamka, M. (2019). Strategies for coping with time-related and productivity challenges of young people with learning disabilities and attention-deficit/hyperactivity disorder. *Children*, 6(2), 28. <https://doi.org/10.3390/children6020028>
- Lefler, E. K., Sacchetti, G. M., & Carlo, D. D. (2016). ADHD in college: A qualitative analysis. *ADHD Attention Deficit and Hyperactivity Disorders*, 8(2), 79-93. <https://doi.org/10.1007/s12402-016-0190-9>
- Li, X., Oquendo-Colón, N. O., Zaheer, M., & Finelli, C. J. (2025, February). WIP: Perceptions of Instructional Practices among Engineering College Students with Attention-Deficit/Hyperactivity Disorder. In *2025 Collaborative Network for Engineering & Computing Diversity (CoNECD)*.
- Lin, H., Si-tong, Y., & Yu, J. (2024). The mediating effects of mobile phone use on ADHD and educational outcomes: A two-step Mendelian randomization study. *Frontiers in Psychiatry*, 15. <https://doi.org/10.3389/fpsy.2024.1424082>
- Murkett, K., Smart, W., & Nugent, K. (2014). Attention-deficit/hyperactivity disorder in postsecondary students. *Neuropsychiatric Disease and Treatment*, 1781. <https://doi.org/10.2147/ndt.s64136>
- Nelson, J. M., Lindstrom, W., & Foels, P. (2014). Test anxiety and college students with attention deficit hyperactivity disorder. *Journal of Psychoeducational Assessment*, 32(6), 548-557. <https://doi.org/10.1177/0734282914521978>

Oquendo-Colón, N. O., Li, X., & Finelli, C. J. (2024, June). WIP: The Role of Classroom Teaching Practices on the Academic Success of Engineering College Students with ADHD. In *2024 ASEE Annual Conference & Exposition*.

Oquendo-Colón, N., Carroll, L., & Finelli, C. J. (2023, June). Academic success of STEM college students with Attention Deficit Hyperactivity Disorder and the role of classroom teaching practices: Project update. In *Proceedings of the 2023 ASEE Annual Conference & Exposition*. American Society of Engineering Education.

Perry, S. N., & Franklin, K. K. (2006). I'm not the gingerbread man! Exploring the experiences of college students diagnosed with ADHD. *Journal of Postsecondary Education and Disability*, 19(1), 194-109.

Prince, M. (2004). Does active learning work? A review of the research. *Journal of Engineering Education*, 93, 223-231. <http://dx.doi.org/10.1002/j.2168-9830.2004.tb00809.x>

Roediger, H. L. and Karpicke, J. D. (2006). Test-enhanced learning. *Psychological Science*, 17(3), 249-255. <https://doi.org/10.1111/j.1467-9280.2006.01693.x>

Saldaña, J. (2021). The coding manual for qualitative researchers.

Schlossberg, N. K. (2005). *Counseling adults in transition*. Springer Publishing Company.

Sedgwick, J. A., Merwood, A., & Asherson, P. (2019). The positive aspects of attention deficit hyperactivity disorder: A qualitative investigation of successful adults with ADHD. *ADHD Attention Deficit and Hyperactivity Disorders*, 11, 241-253.

Stevens, A. E., Lefler, E. K., Serrano, J. W., & Hartung, C. M. (2023). Transitioning to college with ADHD: A qualitative examination of parental support and the renegotiation of the parent-child relationship. *Current Psychology*, 43(4), 3134-3149. <https://doi.org/10.1007/s12144-023-04525-0>

Stiggins, R. J. (2002). Assessment crisis: The absence of assessment for learning. *Phi Delta Kappan*, 83(10), 758-765.

Taylor, C. L. and Zaghi, A. E. (2022). The interplay of ADHD characteristics and executive functioning with the GPA and divergent thinking of engineering students: A conceptual replication and extension. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.937153>

Taylor, C. L., Zaghi, A. E., Kaufman, J. C., Reis, S. M., & Renzulli, J. S. (2020). Divergent thinking and academic performance of students with attention deficit hyperactivity disorder characteristics in engineering. *Journal of Engineering Education*, 109(2), 213-229. <https://doi.org/10.1002/jee.20310>

Terenzini, P. T., & Reason, R. D. (2005, November). Parsing the first year of college: A conceptual framework for studying college impacts. In *annual meeting of the Association for the Study of Higher Education*, Philadelphia, PA.

Tinto, V. (1993). *Leaving College: Rethinking the Causes and Cures of Student Attrition* (2nd ed.). Chicago: University of Chicago Press.

Winkelmes, M. A. (2023). Assessment in Class Meetings: Transparency Reduces Systemic Inequities. In *Reframing Assessment to Center Equity* (pp. 131-144). Routledge.