

ARP PGcert DATA #2

This section of research focuses on how academic layout and language can affect Neuro diverse and unspecified learning challenged students.

ADHD and Academic Performance in College Students: A Systematic Review

This study gathered data from 15 studies done between 2018-2024, it's core findings found that across the board, students with significant or diagnosed ADHD have lower academic performance, and that this was strongest for students with inattention symptoms.

Pagespetit et al. (2025) concluded that *“an ADHD diagnosis or significant ADHD symptoms are associated with lower academic performance in college students, particularly those with inattention symptoms.”*

ADHD and Academic Success in University Students: The Important Role of Impaired Attention: *“Students with greater inattention symptomatology at the start of their academic program showed consistently poorer long-term academic success (i.e., lower GPAs, higher dropout rates), regardless of gender.”*

The main takeaways from this quantitative study for my research is:

Prioritise clarity and structure: Because inattention strongly predicts poorer performance, briefs should minimise extraneous cognitive load: short LOs, signposted structure, bulleted instructions, and explicit assessment alignment. (Direct implication from the inattention finding.)

The Relation Between Academic Word Use and Reading Comprehension for Students From Diverse Backgrounds (Wood, Schatschneider & VelDink, 2021)

Whilst this data was taken from younger students and not university HE age students, I find it relevant to my research because I have a great deal of English language learners on my course, and I want to mitigate confusion in all areas.

This study had a pool of 1,128 Grade 5 students and focused on how academic word use impacted students from diverse backgrounds. They defined academic word use as:

“Uses Coxhead’s Academic Word List (570 word families) — these are words frequently found in school texts beyond basic everyday vocabulary”

An important quotes within the study about how wealth disparity affected the study:

“... the relation was moderated by economic advantage, with the strength of the relation being lower for students who were eligible for free/reduced lunch”

“Socioeconomic status compounds the effect. Students from lower SES (free/reduced lunch) show weaker gains per additional academic word, meaning language-rich exposure outside

school, or scaffolding, really matters. Briefs / LOs should provide scaffolding, definitions, exemplars etc. to help level that playing field”

“FRL status moderated the relationship: for students eligible for free/reduced lunch, the strength of improvement per extra academic word was lower. E.g., for FRL students adding one academic word associated with ~4.5-point increase in reading comprehension vs ~8.89 points for non-FRL students.”

Whilst I don’t want to dive too deeply into this topic in my ARP unit as it’s frankly closer in scope to a PHD- I do want to include it in my data collecting as something to keep in mind.

“English Learners and students with LLD are not uniquely “pitched down” by this relation. Interestingly, the predictive relation (academic word use → comprehension) was similar for ELs and LLD students as for their peers. This suggests that clarity in academic language helps *all* students - not just those with language or learning difficulties.”

Key takeaways from this body of research:

Provide *scaffolding* (vocabulary lists, glossaries, exemplars) so students can see what academic word use looks like.

Use simplified initial versions of tasks or LO wording

Consider “SES and linguistic background” in your design. If students are likely to be from non-native English-speaking homes or economically disadvantaged backgrounds, the brief needs to explicitly supply access to academic vocabulary.

https://pubs.asha.org/doi/full/10.1044/2020_LSHSS-19-00099

UDL:

UDL is built around three main neurological/educational learning systems:

- Multiple Means of Engagement: why students are learning (motivation, relevance, safety).
- Multiple Means of Representation: what is being learned (how content is presented).
- Multiple Means of Action & Expression: how students demonstrate what they’ve learned.

Its creation is designed to focus on reapproaching education to reduce barriers for students rather than bolting on some quick fixes for ND (neurodiverse) students. It’s approach blends the way education is delivered to the students, providing multiple avenues for engagement and knowledge retention- for example, blending workshops with spoken lecture, having multiple teachers and guests per unit to bring new and fresh approaches to the subject, ect.

This has had large data and implementation with larger samples- for example, one case-study introduced UDL in a class of 400+ students in Dublin City: *Embedding Universal Design for Learning in the Large Class Context: Reflections on Practice*

Which concluded that:

“The UDL framework provides a platform to align these two pedagogical imperatives to ensure access. Even if teachers set out to use UDL with certain learners in mind, their considerations in relation to lesson design for those students will likely benefit all (Association for Higher Education Access and Disability, 2017); this will lead them to move away from the notion of accommodations for some to one of accessibility for all (Eitzen et al., 2016), and this has as much to do with social justice as it does inclusion (Hanesworth et al., 2019)” Ann Marie Farrell

Which found that the UDL approach had a positive impact on the entire student body and not just the ND students-

Anecdotally, I've also found this to be true within my own teaching- every extra measure I've taken to support my students with learning difficulties has had a positive effect on the entire body- clearer language, reaffirming the required task, reassuring what is relevant and what isn't, keeping a clear, legible date for hand-in requirements ect.

My course is highly practical so we are forced into a blended approach by it's nature- lectures with practical workshops- guests from industry- focus on learning practical technical sculpting skills ect.

Bibliography:

DCU. (2023) DORAS [*Embedding Universal Design for Learning in the Large Class Context: Reflections on Practice, Ann Marie Farrell*] – July 2023. Available at: <https://doras.dcu.ie/28678/3/DORAS%20-%20July%202023.pdf> (Accessed: 12 October 2025).

American Speech-Language-Hearing Association (ASHA). (2020) '*The Relation Between Academic Word Use and Reading Comprehension for Students From Diverse Backgrounds (Wood, Schatschneider & VelDink, 2021)*', *Language, Speech, and Hearing Services in Schools*, [online] Available at: https://pubs.asha.org/doi/full/10.1044/2020_LSHSS-19-00099 (Accessed: 12 October 2025).

SAGE Journals. (2024) [*ADHD and Academic Performance in College Students: A Systematic Review*], *Journal of Attention Disorders*, [online] Available at: <https://journals.sagepub.com/doi/10.1177/10870547241306554> (Accessed: 12 October 2025).

