

Transforming Education: Harnessing Generative AI to Empower Students with Disabilities

by
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The Learning Ideas Conference: Innovations in
Learning and Technology for the Workplace
and Higher Education

May 29, 2025, 2:00 p.m.



Could you identify types of disabilities encountered in higher education in the chat box?

10 Disabilities

1. Learning Disabilities: Conditions such as dyslexia, dyscalculia, and ADHD that impact reading, writing, and processing information.

2. Physical Disabilities: Impairments that may affect mobility, such as spinal cord injuries, amputations, or conditions like muscular dystrophy.

3. Sensory Disabilities: Blindness or low vision and Deafness or hard of hearing

4. Mental Health Disorders: Conditions such as anxiety disorders, depression, bipolar disorder, and schizophrenia that can affect emotional and psychological well-being.

5. Autism Spectrum Disorders: A range of conditions characterized by challenges with social skills, repetitive behaviors, and communication.

6. Chronic Illnesses: Conditions such as diabetes, epilepsy, or multiple sclerosis that can affect daily functioning and academic performance.

7. Intellectual Disabilities: Limitations in intellectual functioning and adaptive behavior, including Down syndrome or other cognitive impairments.

8. Traumatic Brain Injuries (TBI): Injuries that can affect cognitive function, memory, and physical abilities.

9. Speech and Language Disorders: Conditions that affect communication, including speech impediments and language processing disorders.

10. Temporary Disabilities: Injuries or conditions that are not permanent but may still require accommodations, such as fractures or recovery from surgery.

10 Disabilities in Higher Education

1. Attention Deficit Hyperactivity Disorder (ADHD)

2. Specific Learning Disabilities (SLD)

3. Anxiety Disorders

4. Depression and Mood Disorders

5. Dyslexia

6. Autism Spectrum Disorders (ASD)

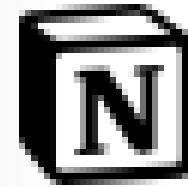
7. Physical Disabilities and Mobility Impairments

8. Sensory Impairments

9. Executive Functioning Disorders

10. Chronic Health Conditions

Generative AI Resources



Generative AI Applications Support Higher Education Through Multiple Strategies



Accessibility
Enhancements

Learning Outcome
Improvements

Disability Support

Technological
Interventions

Questions & Contact Information



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10 Common Disabilities in Higher Education with Academic References

1. Attention Deficit Hyperactivity Disorder (ADHD)

ADHD is one of the most prevalent conditions among college students, affecting approximately 8-15% of the student population seeking disability services. While not classified as a learning disability under federal law, ADHD significantly impacts academic performance and executive functioning.

Key References:

- DuPaul, G. J., Weyandt, L. L., O'Dell, S. M., & Varea, M. (2009). College students with ADHD: Current status and future directions. *Journal of Attention Disorders*, 13(3), 234-250.
- Weyandt, L. L., & DuPaul, G. J. (2006). ADHD in college students. *Journal of Attention Disorders*, 10(1), 9-19.

2. Specific Learning Disabilities (SLD)

Learning disabilities represent the largest category of disabilities in higher education, comprising 25-40% of students receiving disability services. This includes difficulties with reading, writing, mathematics, or information processing.

Key References:

- Cortiella, C., & Horowitz, S. H. (2014). *The state of learning disabilities: Facts, trends and emerging issues*. National Center for Learning Disabilities.
- Gregg, N. (2009). *Adolescents and adults with learning disabilities and ADHD: Assessment and accommodation*. Guilford Press.

3. Anxiety Disorders

Anxiety disorders have shown dramatic increases among college students, with prevalence rates ranging from 15-25% of students seeking mental health services. These often co-occur with other disabilities.

Key References:

- Eisenberg, D., Hunt, J., & Speer, N. (2013). Mental health in American colleges and universities: variation across student subgroups and across campuses. *The Journal of nervous and mental disease*, 201(1), 60-67.
<https://doi.org/10.1097/NMD.0b013e31827ab077>
- Kessler, R. C., Berglund, P., Demler, O., Jin, R., & Walters, E. E. (2005). Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication. *Archives of General Psychiatry*, 62(6), 593-602.
<https://doi.org/10.1001/archpsyc.62.6.593>

4. Depression and Mood Disorders

Depression affects approximately 10-20% of college students, with higher rates among students with disabilities. Major depressive disorder significantly impacts academic performance and retention.

Key References:

- Ibrahim, A. K., Kelly, S. J., Adams, C. E., & Glazebrook, C. (2013). A systematic review of studies of depression prevalence in university students. *Journal of Psychiatric Research*, 47(3), 391-400. <http://dx.doi.org/10.1016/j.jpsychires.2012.11.015>
- Lipson, S. K., Lattie, E. G., & Eisenberg, D. (2019). Increased rates of mental health service utilization by US college students. *Psychiatric Services*, 70(1), 60-63. <https://pubmed.ncbi.nlm.nih.gov/23274298>

5. Dyslexia

Dyslexia is the most common type of specific learning disability, affecting approximately 80% of individuals with learning disabilities and 5-10% of the general population.

Key References:

- Shaywitz, S. E., & Shaywitz, B. A. (2005). Dyslexia (specific reading disability). *Biological Psychiatry*, 57(11), 1301-1309.
- Lyon, G. R., Shaywitz, S. E., & Shaywitz, B. A. (2003). A definition of dyslexia. *Annals of Dyslexia*, 53(1), 1-14.

6. Autism Spectrum Disorders (ASD)

The number of students with ASD entering higher education has increased significantly, with prevalence estimates ranging from 0.7-1.9% of college students.

Key References:

- Shattuck, P. T., Narendorf, S. C., Cooper, B., Sterzing, P. R., Wagner, M., & Taylor, J. L. (2012). Postsecondary education and employment among youth with an autism spectrum disorder. *Pediatrics*, 129(6), 1042-1049. <https://pmc.ncbi.nlm.nih.gov/articles/PMC3362908/pdf/peds.2011-2864.pdf>
- Wei, X., Wagner, M., Hudson, L., Yu, J. W., & Javitz, H. (2016). The effect of transition planning participation and goal-setting on college enrollment among youth with autism spectrum disorders. *Remedial and Special Education*, 37(1), 3-14. <https://doi.org/10.1177/0741932515581495>

7. Physical Disabilities and Mobility Impairments

Physical disabilities affect approximately 5-8% of college students with disabilities, including conditions affecting mobility, dexterity, or stamina.

Key References:

- Snyder, T. D., de Brey, C., & Dillow, S. A. (2019). *Digest of education statistics 2018*. National Center for Education Statistics. <https://nces.ed.gov/pubs2020/2020009.pdf>
- Marshak, L., Van Wieren, T., Ferrell, D. R., Swiss, L., & Dugan, C. (2010). Exploring barriers to college student use of disability services and accommodations. *Journal of Postsecondary Education and Disability*, 22(3), 151-165. <https://files.eric.ed.gov/fulltext/EJ906688.pdf>

8. Sensory Impairments

Sensory impairments include hearing impairments (affecting 3-5% of students with disabilities) and visual impairments (affecting 2-4% of students with disabilities).

Key References:

- Convertino, C., Marschark, M., Sapere, P., Sarchet, T., & Zupan, B. (2009). Predicting academic success among deaf college students. *Journal of Deaf Studies and Deaf Education*, 14(3), 324-343. <https://doi.org/10.1093/deafed/enp005>
- Kelly, S. M., & Wolffe, K. E. (2012). Internet use by transition-age youths with visual impairments in the United States: Assessing the impact of postsecondary predictors. *Journal of Visual Impairment & Blindness*, 106(10), 597-608. <https://doi.org/10.1177/0145482X1210601004>

9. Executive Functioning Disorders

While often associated with ADHD and learning disabilities, executive functioning disorders can occur independently and affect 10-15% of students seeking disability accommodations.

Key References:

- Meltzer, L. (Ed.). (2018). *Executive function in education: From theory to practice*. Guilford Publications.
- Wolf, L. E. (2001). College students with ADHD and other hidden disabilities: Outcomes and interventions. *Annals of the New York Academy of Sciences*, 931(1), 385-395.

10. Chronic Health Conditions

Chronic health conditions (including diabetes, epilepsy, chronic fatigue syndrome, and autoimmune disorders) affect approximately 8-12% of college students seeking disability services.

Key References:

- Jung, K. E. (2003). Chronic illness and academic accommodation: Meeting disabled students' "unique needs" and preserving the institutional order of the university. *Journal of Sociology and Social Welfare*, 30(1), 91-112. <https://doi.org/10.15453/0191-5096.2875>
- Kranke, D., Jackson, S. E., Taylor, D. A., Anderson-Fye, E., & Floersch, J. (2013). College student disclosure of non-apparent disabilities to receive classroom accommodations. *Journal of Postsecondary Education and Disability*, 26(1), 35-51. <https://files.eric.ed.gov/fulltext/EJ1026808.pdf>

Additional Key Resources and Journals

Primary Academic Journals:

- *Journal of Postsecondary Education and Disability* (JPED)
- *Journal of Learning Disabilities*
- *Disability and Society*
- *Journal of Disability Studies in Education*

Major Research Centers:

- National Center for Education Statistics (NCES)
- National Center for Learning Disabilities
- AHEAD (Association on Higher Education and Disability)

Statistical Notes

According to the most recent comprehensive data:

- Approximately 19-21% of undergraduate students report having a disability
- The most common category is specific learning disabilities (31% of students with disabilities)
- ADHD affects nearly 16% of college students according to recent surveys
- Mental health conditions (anxiety, depression) are increasingly prevalent

Data Sources:

- U.S. Department of Education, National Center for Education Statistics
- American College Health Association National College Health Assessment
- AHEAD surveys and reports