

HIGHER EDUCATION OF STUDENTS WITH DISABILITIES: A LITERATURE REVIEW

Abstract

The proportion of higher education students with disabilities is increasing at university level. In Macedonia, there are no statistics about the number of students with disabilities included in the academic institutions. The inadequate accessibility of higher education institutions, the lack of support, the negative social attitudes and social isolation, as well as the low financial capacity influence the success of students with disabilities and affect their inclusion in the higher education. This study aims to conduct an in-depth review of some of these challenges that are present in the higher education of students with disabilities. A detailed analysis of 11 publications was performed. We can conclude from those publications that faculty members demonstrate generally positive attitudes towards students with disabilities, with some research indicating less favourable attitudes towards those with “nonvisible” disabilities, such as learning disabilities. Also, there are conflicting results as to whether students with disabilities have an equivalent academic performance with those without disabilities.

Keywords: HIGHER EDUCATION; STUDENTS WITH DISABILITIES; STUDENTS WITHOUT DISABILITIES; ATTITUDES, ACADEMIC ACHIEVEMENT

Introduction

Education is very important for an individual's success in life. Obtaining a college degree is considered by many to be “crucial to the pursuit of high-quality vocational opportunities” (Reinschmiedt et al., 3). For students with disabilities, earning a college degree is especially important because they, in comparison with their peers without disabilities, have a lower work participation rates (Newman et al., 2011). So, it is imperative for each country to ensure that higher education (HE) is accessible to all, including equity groups such as students with disabilities.

From a historical point of view, the literature states that students with disabilities have been underrepresented in higher education (Macleod and Cebula, 2009). Despite this fact, it is evident that the number of students with disabilities entering university has continued to increase (Department of Education and Training, 2014). It is well documented that students with disabilities continue to be a growing demographic group at colleges and universities (Sanford et al, 2011). According to Hurst and Smerdon (2000), 63% of all high school graduates with disabilities enrolled in higher education.

The majority of students with disabilities in higher education institutions have learning disabilities (LD), Attention Deficit Hyperactivity Disorder (ADHD), and mental health disorders (Raue and Lewis, 2011).

Despite the rising number of enrollments, many of these students continue to encounter significant barriers that can have a profound impact on their college experience. At the higher education institutions, there are no resources to make academic institutions accessible to students with various disabilities (physical and sensory), funds for making physical adjustments in buildings, assistive technology, and other adapted learning equipment.

The inadequate accessibility of the higher education institutions, the lack of support, the negative social attitudes and social isolation, as well as the low financial capacity influence the success of students with disabilities and affect their inclusion in the higher education. Therefore, it is very important to accordingly allocate resources to make academic institutions accessible to people with disabilities (Ramot and Feldman, 2003); provide funds for making physical adjustments in buildings and adding computers, assistive technology, and other adapted learning equipment, as well as award scholarships to students (Inbar, 2003).

In order to develop a more in-depth analysis of the higher education of students with disabilities, the following research questions were formulated in this article: What are the attitudes of university members towards students with disabilities, do students with disabilities display equivalent academic performance with those without disabilities, are graduation rates significantly different between students with and without disabilities?

Methods

Search Procedure

We searched the three electronic databases (ERIC, Google Scholar, and SocINDEX) for relevant studies from March/April 2018. The following keyword descriptors were used in combination: “students with disabilities” or “students with special needs” and “higher education” or “university education”. The search was systematically conducted on journal articles in academic peer-reviewed journals and was not limited by year. The literature on higher education and students with disabilities is largely composed of descriptive studies. Specifically, the majority of the articles and reports focus on descriptions of various indices of faculty’s attitudes, knowledge, and practices, based on self-report surveys.

Results and Discussion

We have organized our findings along three aspects: faculty members’ attitudes towards students with disabilities, graduation rates of students with disabilities,

and academic outcomes of students with and without disabilities. For each aspect, an analysis of the studies that have measured the faculty's attitudes towards students with disabilities (Table 1), studies that show the differences between the graduation rates of students with and without disabilities (Table 2), and the studies containing the academic outcomes (Table 3) will be presented.

University members' attitudes towards students with disabilities

Attitudes towards disabilities as a topic is widely researched when it comes to published studies concerned with disability issues. However, this also happens to be the least researched variable in studies done with faculties and students with disabilities in higher education.

Many studies have shown the importance of the faculty's attitudes towards students with disabilities (SWD), their awareness of these students' needs, and their knowledge of the reasonable accommodations available (Sachs and Schreuer, 2011). These attitudes influence the success or failure of students with disabilities and affect their inclusion in higher education (Rao, 2004). The negative attitudes of the faculty staff may prevent students, especially students with invisible disabilities, from disclosing their disabilities and from requesting accommodations that they are entitled to (Johnson, 2006).

Table 1. Faculty members' attitudes

Authors	N / Institution	Attitudes
Greenberger (2016)	225 faculty members/ Institute of technology in Israel	Faculty members expressed <u>positive attitudes</u> towards SWD, yet shared some concerns, especially regarding students with learning disabilities.
Sniatecki, Perry and Snell (2015)	123 faculty members/ Public liberal arts university, New York	Results suggest that although the faculty has generally <u>positive attitudes</u> toward SWD, it is more likely to hold negative attitudes towards students with mental health disabilities and learning disabilities than towards students with physical disabilities.
Abu-Hamour (2013)	170 faculty members/ University in Jordan	The majority of the faculty members have <u>positive attitudes</u> towards the inclusion of SWD; also, they are not familiar with the disability legislation in Jordan; and the majority of the faculty members were not trained to teach SWD.

From the studies listed in Table 1, it can be concluded that faculty members demonstrate generally positive attitudes towards students with disabilities. But, some research indicate less favourable attitudes towards those with “nonvisible” disabilities, such as learning disabilities (Greenberger, 2016; Sniatecki, Perry, and Snell, 2015), an attention deficit hyperactivity disorder, and psychiatric disabilities. These “nonvisible” disabilities typically require adaptations in the area of instructions, course content delivery, and assessment.

Alliston (2011), Lombardi and Murray (2011), and Cook et al. (2009) argue that female faculty members show greater willingness to accommodate students with disabilities, learn more about disabilities, and support them as well. Other researchers’ findings indicated that faculty members who had contact with SWD showed more favourable attitudes towards their presence in the class (Bourke, Strehorn, and Silver, 2000). Namely, faculty members who have increased contact proved themselves more knowledgeable about relevant disability considerations. Moreover, it is interesting to mention that faculty members with lower academic rank are more willing to provide teaching accommodations than senior lecturers and professors (Lombardi and Murray, 2011).

Several studies show evidence that faculty members in higher education do not have a solid grasp of the institutional policies on accommodation for students with disabilities (Abu-Hamour, 2013; Katsiyannis, Zhang, Landmark, & Reber, 2009; Murray, Flannery, & Wren, 2008)

Academic outcomes of students with and without disabilities

Generally, there is a conflict in researchers’ findings as to whether students with disabilities display equivalent academic performance with those without disabilities (Jorgensen et al., 2005).

Table 2. Academic outcomes

Authors	N / Institution	Academic outcomes
Witte, Philips and Kakela (1998)	Students with LD ¹ = 55 SWOD ² =55/ Miami University	Students with LD graduated with grade point averages (GPAs) that are <u>significantly below</u> the comparison group of SWOD.
Sparks, Javorsky and Philips (2004)	Students with ADHD = 68/ University in the Midwest, USA	Students with ADHD at a medium-sized university were academically competitive with their peer group and graduated with <u>similar GPAs</u> compared to the typical graduating senior at the same university.
Jorgensen et al. (2005)	40,000 SWOD ² and SWD ³ / Universities in Canada	The results indicated <u>statistically insignificant difference in GPA</u>

Sachs and Schreuer (2011)	SWOD ² = 156 SWD ³ = 170/ Universities in Israel	The academic outcomes of students with and without disabilities <u>were similar</u> . Student experiences differed according to the disability type. Namely, the students with a physical disability were more satisfied than the students with a sensory or psychiatric disability.
Wasielowski (2016)	SWOD ² = 56 SWD ³ = 56/ Saint Anselm College	The findings in this study indicate that <u>there is a significant difference</u> in the academic performance between these two groups as measured by the GPA.

¹Learning disabilities; ²Students without disabilities; ³ Students with disabilities

The studies presented in Table 2 suggest that there are unclear academic performance outcomes when it comes to students with disabilities. It can be concluded from them that there are conflicting results as to whether students with disabilities have an equivalent academic performance with those without disabilities. Reed, Kennett, and Emond (2015) concede that as a result of numerous barriers encountered by the students with a disability, they are more at risk of having a poor academic performance than their non-disabled peers.

The graduation rates of students with disabilities

More colleges and universities focus on enrolment management, but retention plays an increasingly important role. Students with disabilities are more likely to drop out of college prior to getting the degree. They may also be less likely to pursue a post-graduate education compared to their nondisabled peers.

Table 3. Retention and graduation rates

Authors	Country	Academic outcomes
Berkner et al. (1996)	National Center of Education Statistics, USA	SWD had <u>lower persistence and graduation rates</u> than the students without disabilities.
Witte, Philips and Kakela (1998)	Students with LD ¹ = 55 SWOD ² =55/ Miami University	Students with LD, on average, took one semester <u>longer to graduate</u> .
Jorgensen et al. (2005)	40,000 SWOD ² and SWD ³ / Universities in Canada	The rigor of the college plan of the studies and the choices of course loads differed to such an extent that SWD had lighter course loads and took longer to complete their studies
Wessel et al. (2009)	Carnegie doctoral-	The retention and graduation rates for all

	granting institution, Midwest, USA	students, regardless of the presence or absence of a disability, were <u>similar</u> .
Knight et al. (2016)	Midwestern Research University, USA	This study demonstrated that the presence of a disability <u>does not negatively influence the eventual graduation</u> , but that it does influence the amount of time to get a degree.

Generally, students with disabilities are at a greater risk of prematurely dropping out of universities in comparison to students without disabilities. Nearly half of all disabled students drop out, compared with one-third of students without disabilities (Horn et al., 1999). Therefore, it is necessary to design policies and strategies that encourage students to stay in the university and complete their degree courses successfully (Moriña, 2017). Many colleges and universities have disability service offices to help facilitate the access to higher education and the academic success of students with disabilities, thus reducing the number of students with disabilities that drop out of college.

Conclusion

According to Gairín and Suárez (2014), inclusivity is a hallmark of a quality university. The European Union is committed to achieving an inclusive education within the framework of higher education. For this purpose, the creation of support plans and services that improve the access and educational inclusion of non-traditional students was proposed in the European Strategy 2010–2020 (European Commission 2010). Many universities have established offices to support the educational needs of students with disabilities, and they also have incorporated the use of new technologies and/or have implemented inclusive educational practices. However, the existence of these actions is insufficient for ensuring the right of the students to quality education, without discrimination, and based on the principles of inclusive education.

Across the globe, students with disabilities have been increasing in prevalence in higher education settings. Thus, it has become more urgent for higher education institutions to have a broad awareness of disability and inclusive teaching practices based on the tenets of Universal Design (UD). There are various UD frameworks, such as the Universal Design for Assessment (UDA) (Thompson et al., 2002), the Universal Design for Instruction (UDI) (Scott et al., 2003), and the Universal Design for Learning (UDL) (Rose et al., 2006). These frameworks are meant to aid faculty in promoting maximum usability and accessibility in the planning, delivery and evaluation stages of the instruction. Many researchers suggest that faculty attitudes towards students with disabilities and the provision of accommodations can be improved by providing the faculty with disability-related training based on UD principles (Lombardi & Murray, 2011; Murray, Lombardi, & Wren, 2011; Park, Roberts, & Stodden, 2012).

References

- Abu-Hamour, B. (2013). Faculty Attitudes toward Students with Disabilities in a Public University in Jordan. *International Education Studies*, 6(12), pp. 74-81.
- Alliston, J. R. (2011). Postsecondary education of students with disabilities: Review of faculty and of students with disabilities perceptions for training. PhD. Retrieved from ProQuest Dissertations & Theses Global.
- Berkner, L., Cuccaro-Alamin, S., McCormick, A., and Bobbit, L. G. (1996). *Descriptive summary of the 1989-90 beginning postsecondary students: 5 years later with an essay on postsecondary persistence and attainment* (NCES 1996-1555). Washington, DC: U.S Department of Education, National Center of Education Statistics.
- Bourke, A. B., Strehorn, K. C., and Silver, P. (2000). Faculty members' provision of instructional accommodations to students with LD. *Journal of Learning Disabilities*, 33(1), pp. 26-32.
- Cook, L., Rumrill, P. D., and Tankersley, M. (2009). Priorities and understanding of faculty members regarding college students with disabilities. *International Journal of Teaching and Learning in Higher Education*, 21, pp. 84-96.
- Department of Education and Training. 2014. Appendix 5: Equity Performance Data for 2013. Available at: <http://docs.education.gov.au/documents/2013-appendix-5-equity-performance-data> [Accessed 20 Apr. 2018].
- European Commission. 2010. European Disability Strategy 2010-2020: A Renewed Commitment to a Barrier-Free Europe. Available at: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:0636:FIN:en:PDF> [Accessed 20 Apr. 2018].
- Gairín, J., and Suárez, C. I. (2014). Clarificar e Identificar a Los Grupos Vulnerables. [Clarifying and Identifying Vulnerable Groups]. In *Colectivos Vulnerables En La Universidad. Reflexiones Y Propuestas Para La Intervención* [Vulnerable Collectives in the University. Reflections and Proposals for Intervention], edited by J. Gairín, 35-61. Madrid: Wolters Kluwer España, S.A.
- Greenberger, L. (2016). Faculty Attitudes toward Students with Disabilities at an Israeli Leading Technolog. Institute. *Learning Disabilities: A Multidisciplinary Journal*, 21(1), pp. 1-13.
- Hurst, D., and Smerdon, B. (Eds.). (2000). *Postsecondary students with disabilities: Enrollment, services, and persistence*. Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement.
- Horn, L., Berkold, J. and Bobbit, L. (1999). *Students with Disabilities in Postsecondary Education: A Profile of Preparation, Participation and Outcomes*. Report of the National Center for Education Statistics, U.S. Department of Education. Washington, DC.

- Inbar, L. (2003). *Rehabilitation of people with disabilities and widows 2000-2001*. National insurance institute of Israel – Research and Planning Administration.
- Johnson, A. L. (2006). Students with disabilities in postsecondary education: Barriers to Success and implication to professionals. *Vistas Online*. Available at: <http://counselingoutfitters.com/vistas2006> [Accessed 21 Apr. 2018].
- Jorgenson, S., Fichten, C., Havel, A., Lamb, D., James, C., and Barile, M. (2005). Academic performance of college students with and without disabilities: An archival study. *Canadian Journal of Counseling and Psychotherapy/Revue Canadienne de Counseling et de Psychotherapie*, 39(2), pp. 101-117.
- Katsiyannis, A., Zhang, D., Landmark, L., and Reber, A. (2009). Postsecondary education for individuals with disabilities: Legal and practice considerations. *Journal of Disability Policy Studies*, 20(1), pp. 35-45.
- Knight, W., Wessel, D.R., and Markle, L. (2016). Persistence to Graduation for Students With Disabilities: Implications for Performance-Based Outcomes. *Journal of College Student Retention: Research, Theory and Practice*, 19(4), pp. 362-380
- Lombardi, A. R., and Murray, C. (2011). Measuring university faculty attitudes toward disability: Willingness to accommodate and adopt Universal Design principles. *Journal of Vocational Rehabilitation*, 34(1), pp. 43-56.
- Lombardi, A., C. Murray, and J. Kowitt. 2016. "Social Support and Academic Success for College Students with Disabilities: Do Relationship Types Matter?" *Journal of Vocational Rehabilitation*, 44, pp. 1-13.
- Macleod, G., and Cebula, K. R. (2009). Experiences of disabled students in initial teacher education. *Cambridge Journal of Education*, 39, pp. 457-472.
- Moriña, A. (2017). Inclusive education in higher education: challenges and opportunities, *European Journal of Special Needs Education*, 32(1), pp. 3-17.
- Murray, C., Flannery, B. K., and Wren, C. (2008). University staff members' attitudes and knowledge about learning disabilities and disability support services. *Journal of Postsecondary Education and Disability*, 21(1), pp. 73-90.
- Murray, C., Lombardi, A. R., and Wren, C. (2011). The effects of disability-focused training on the attitudes and perceptions of university staff. *Remedial and Special Education*, 32(4), pp. 290-300.
- Newman, L., Wagner, M., Knokey, A.-M., Marder, C., Nagle, K., Shaver, D., Wei, X., with Cameto, R., Contreras, E., Ferguson, K., Greene, S., & Swarting, M. (2011). *The Post-High School Outcomes of Young Adults with Disabilities up to 8 Years After High School. A Report From the National Longitudinal Transition Study-2 (NLTS2) (NCSE 2011-3005)*. Menlo Park, CA: SRI International.
- Park, H. J., Roberts, K. D., and Stodden, R. (2012). Practice brief: Faculty perspectives on professional development to improve efficacy when teaching students with disabilities. *Journal of Postsecondary Education and Disability*, 25(4), pp. 377-383.

- Raue, K., and Lewis, L. (2011). *Students with disabilities at degree-granting postsecondary institutions*. (NCES2011-018). U.S. Department of Education, National Center for Education Statistics. Washington, DC: U.S. Government Printing Office.
- Ramot, A., and Feldman, D. (2003). *Providing accessibility of the Hebrew University for people with disabilities, Har Hatzofim campus, Jerusalem*. Shekel – community services for the disabled, the Israeli center for accessibility (Hebrew).
- Rao, S. (2004). Faculty attitudes and students with disabilities in higher education – a literature review. *College Student Journal*, 38(2), pp. 191-198.
- Reed, M. J., Kennett, D. J., and Emond, M. (2015). The influence of reasons for attending university on university experience: A comparison between students with and without disabilities. *Active Learning in Higher Education*, 16, pp. 225-236.
- Rein-schmiedt, G. H., Sprong, M. E., Dallas, B., Buono, F. D., and Upton, T. D. (2013). Post-secondary students with disabilities receiving accommodations: A survey of satisfaction & subjective well-being. *Journal of Rehabilitation*, 79(3), pp. 3-10.
- Rose, D., Harbour, W., Johnston, S., Daley, S., and Abarbanell, L. (2006). Universal Design for Learning in postsecondary education: Reflections on principles and their application. *Journal of Postsecondary Education and Disability*, 19 (2), pp. 135-151.
- Sachs, D., and N. Schreuer. 2011. "Inclusion of Students with Disabilities in Higher Education: Performance and Participation in Student's Experiences." *Disability Studies Quarterly*, 31 (2). Available at: <http://dsq-sds.org/article/view/1593> [Accessed 22 Apr. 2018].
- Sanford, C., Newman, L., Wagner, M., Cameto, R., Knokey, A., and Shaver, D. (2011, September). *The Post-High School Outcomes of Young Adults with Disabilities up to 6 years After High School: Key Findings from the National Longitudinal Transition Study2 (NLTS2)*. (NCSE 2011-3004). Menlo Park, CA: SRI International.
- Scott, S. T., McGuire, J. M., and Shaw, S. F. (2003). Universal design of instruction: A new paradigm for adult instruction in postsecondary education. *Remedial and Special Education*, 24(6), pp. 369-379.
- Sniatecki, J. L., Perry, H. B., and Snell, L. H. (2015). Faculty attitudes and knowledge regarding college students with disabilities. *Journal of Postsecondary Education and Disability*, 28(3), pp. 259-275.
- Sparks, R., Javorsky, S., and Philips, L. (2004). College students classified with attention deficit hyperactivity disorder (ADHD) and the foreign language requirement. *Journal of Learning Disabilities*, 37, pp.169-178.
- Thompson, S., Johnstone, C. J., and Thurlow, M. L. (2002). *Universal design applied to large scale assessments* (Synthesis Report 44). Minneapolis, MN: University of Minnesota, National Center on Educational Outcomes.

- Wasielewski, L. M. (2016). Academic Performance of Students with Disabilities in Higher Education: Insights from a Study of One Catholic College. *Journal of Catholic Education*, 20(1), pp. 136-151.
- Wessel, R. D., Jones, J. A., Markle, L., & Westfall, C. (2009). Retention and graduation of students with disabilities: Facilitating student success. *Journal of Postsecondary Education and Disability*, 21, pp. 116-125.
- Witte, R. H., Philips, L., and Kakela, M. (1998). Job satisfaction of college graduates with learning disabilities. *Journal of Learning Disabilities*, 31, 259-265.