Enhancing Quality of Learning Experiences for Students with Disabilities in Higher Education Institutions in Alignment with Sustainable Development Goals

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Abstract

Enhancing learning experiences for students with disabilities in higher education is essential for achieving the Sustainable Development Goals (SDGs) related to inclusive and equitable education. This study aims to ascertain the principal elements that enhance the quality of experiential learning for Students with Disabilities (SWD) at higher education institutions (HEIs) in accordance with SDGs. This study utilizes a qualitative descriptive research technique, focusing on the examination of critical aspects that might enhance the learning experience for students with disabilities at HEIs in alignment with the SDGs. The findings indicated that although several HEIs have enacted policies to enhance accessibility for SWD, considerable obstacles persist in the domains of assistive technology integration, curricular adaptability, and faculty development. The current study focuses on positive examples of how institutions have linked their projects to the SDGs. One way they have done this is by using flexible technology, teaching methods that include everyone, and strong support networks for institutions, to enhance the quality of learning experiences for SWD in university life and to fully utilize their potential in global national development initiatives.

Keywords: *Learning Experience; Higher Education; Student Performance; Students with Disabilities; Sustainable Development Goals.*

Introduction

No community is complete without individuals with disabilities. Consequently, understanding disability is fundamental to any society aspiring to progress and uphold the basic human rights of all its citizens. Numerous instances (Heymani et al., 2020) indicate that social factors have created disability. Furthermore, individuals with disabilities typically encounter prejudice, inequality, and obstacles to equitable opportunities, including access to education (UNESCO 2019). The Convention on the Rights of Persons with Disabilities is a recent addition to the field of human rights (United Nations, 2006). The United Nations, 2006, approved the treaty in 2007, emphasizing that individuals with disabilities possess equal rights as all citizens. Disability was not explicitly defined by the convention; however, our previous article indicated that disabled individuals possess physical, sensory, mental, or multiple impairments, whereby environmental barriers inhibit their full and effective participation in society on an equal basis with others. Additionally, the right to persuasion is asserted in Article 24 of this Convention (United Nations, 2006). The approval by 98 different nations and the signature by 147 governments show that the wording and provisions of this agreement are widely accepted around the world. Universities are currently hosting a growing number of SWD (Zongozzi, 2020). Although there has been a significant shift in the global perspective of this demographic, it still lacks adequate representation (Monforte et al., 2021).

Conversely, students with disabilities encounter a greater than average number of barriers in their higher educational experiences. A designated administrative unit typically provides support services to students with impairments. However, the designated administrators and their personnel frequently struggle to discern the characteristics that most effectively facilitate the academic and adjustment achievement of students with disabilities (Safer et al., 2020). Conversely, Williams et al. (2018) demonstrate that individuals with disabilities persistently encounter discriminatory obstacles in societal, educational, and occupational contexts. To promote the rights of individuals with disabilities, it is essential to persist in illuminating the hurdles they encounter within social and cultural contexts. Morgan (2023) advocates for the implementation

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of interventions that foster an institutional framework that acknowledges persons with disabilities as rights holders and provides them with equal and fair access to higher education and job prospects.

A university education is a crucial stage in the lives of individuals, particularly those who choose to pursue their studies beyond secondary school. The university serves as a venue for challenging established knowledge and fostering the generation and dissemination of new ideas (Willetts, 2017). University graduates typically emerge as future leaders, legislators, educators, and medical professionals. Their futures impact those with impairments, either directly or indirectly. Consequently, university curricula must incorporate sufficient disability awareness initiatives. Implementing disability awareness programs at the university level fosters acceptance and inclusion of individuals with impairments, promotes positive attitudes toward students with disabilities, and reduces discomfort in interactions with them (Kirk et al., 2021). Consequently, higher education institutions must enhance the incorporation of disability awareness in their curricula to attain inclusion for individuals with impairments (Fabrigar et al., 2006).

Several factors, including GPA, graduation rates, and enrollment risks, affect the academic performance of students with disabilities in higher education. Key positive variables include attending more than half-time and sustaining a high GPA. Students that persist in their studies beyond the initial semester exhibit a higher likelihood of graduation. This highlights the critical necessity for disability support services to proactively advertise their resources prior to student enrollment, guaranteeing that these services are readily available and efficiently employed throughout the initial semester (Hillier et al., 2018). Furthermore, studies indicate that students who announce their majors promptly are more likely to attain higher academic performance. Moreover, research demonstrates that students who engaged with two or more support services got superior results, underscoring the need for a cohesive and complete support system (Cox et al., 2017). Ongoing evaluation of programs for students with impairments is crucial to enhancing their efficacy (Kilpatrick et al., 2017).

Theoretical Framework

This research investigates the principal elements that might enhance the learning experience of students inside HEIs, in accordance with the SDGs. In light of the escalating global competition among universities and the continuous effort to invest in human capital while facilitating the integration of SWD in society and improving their experience gained in higher education institutions, this research aims to address four fundamental questions:

What role do HEIs play in promoting inclusive education for SWD in the context of the SDGs?

What are the main challenges faced by SWD in HEIs?

What effective strategies can be implemented in HEIs to improve the overall learning experience for SWD?

What role does technology play in supporting SWD, and how can technological tools be better integrated into the educational process?

Given the ongoing endeavors by universities to adopt strategies that enhance the experiences of students with disabilities, thereby affirming their right to inclusive education and bolstering the institution's academic reputation, it is essential to recognize that enhancing these experiences constitutes an investment in human capital—a fundamental component of national development. Consequently, it is essential to perform a thorough evaluation of the elements that might improve the educational experience for students with impairments in higher education settings. This research seeks to provide a comprehensive analysis of the elements that affect the improvement of the educational experience for students with disabilities in higher education institutions. This research aims to fill a significant gap in the current literature, offering a relevant and timely resource on a topic that is garnering significant global attention. This study will evaluate the key aspects that might enhance the learning experience for these students in higher education. The results will be crucial in guiding initiatives and practices that foster an inclusive academic environment. This research

is significant for policymakers and higher education institutions as it offers evidence-based insights to enhance the experiences of SWD, allowing for the development of successful initiatives that promote access and inclusion in education. This research aims to advance justice and fairness in higher education for students with disabilities, clearly aligning with the Sustainable Development Goals (SDGs).

Methodology

This study used a qualitative descriptive research technique to determine the principal characteristics that enhance the quality of experiential learning for SWD at HEIs in accordance with SDGs. Descriptive research, as articulated by Neuman (2014), is defined by its capacity to "depict the specific details of a situation, social setting, or relationship" and "commences with a clearly defined issue or question, aiming to describe it with precision." "...focuses on 'how' and 'who' inquiries..." Lambert and Lambert (2012) assert that qualitative research approaches, such as phenomenology and grounded theory, may fulfill both descriptive and explanatory functions. The authors propose that the phrase "qualitative descriptive research" should be utilized to precisely define the research technique instead of inaccurately categorizing it with terminology linked to other approaches (e.g., phenomenology, grounded theory, ethnography).

Lambert and Lambert (2012). The idea behind qualitative descriptive research often comes from naturalistic inquiry, which tries to find things as close to how they really are in the study setting as possible (Lambert & Lambert, 2012). The study, fundamentally qualitative, aims to identify the principal characteristics that enhance the quality of learning experiences for students with disabilities in higher education institutions, in accordance with the Sustainable Development Goals; hence, it represents qualitative descriptive research. Moreover, considering the aims of this study, a comprehensive content analysis of both digital and printed resources related to the events under examination is necessary (Bowen, 2009). Bowen (2009) contends that it has three phases: skimming, complete reading, and interpretation. Reading and writing can be broken down into smaller, more manageable pieces using content analysis (Weber, 1990). The goal is to find the main ideas by looking for recurring themes and patterns in the materials (Patton, 2002).

Results and Discussions

1-What role does HEIs play in promoting inclusive education for SWD in the context of the SDGs?

The 17 Sustainable Development Goals (SDGs) provide a worldwide mandate for states to pursue methods that foster inclusion, equality, and prosperity. Objectives include delivering excellent education (SDG 4), promoting good health and well-being (SDG 3), ensuring representative decision-making (SDG 16.7), and fostering sustainable communities (SDG 11), according to the United Nations, 2015.

Education was designated as Goal 4 (SDG 4) under the Sustainable Development Goals (SDGs). SDG4 seeks to "guarantee inclusive and equitable quality education and foster lifelong learning opportunities for all." The absence of education and illiteracy frequently restrict access to information and hinder individuals' lives. From the standpoint of knowledge and skill acquisition, as well as human resource development, it is evident that the components of education are integrated across all 17 Sustainable Development Goals (SDGs). Education is a multidisciplinary field that impacts several domains (Tonegawa, 2023).

SDG 4 emphasizes education, aiming to " promote lifelong learning experiences for everyone and guarantee inclusive and equitable quality education" (United Nations, 2015). Target 4.3 notably addresses equitable access for both women and men to vocational, technical, and universities' education. Supplementary objectives under SDG 4 concentrate on addressing issues such as the eradication of gender disparities in education, ensuring equitable access for disabled individuals, vulnerable groups, and native populations, as well as achieving mathematical and literacy skills for all adolescents and a significant percentage of adults, according to the United Nations, 2015 (Ferguson and Roofe, 2020).

SDG 4 especially emphasizes inclusive, egalitarian, lifelong, and quality experiential education. Despite one of the seventeen goals, SDG 4 is essential to the success of all others. This objective can be implemented in both informal and formal education across all educational levels; yet, higher education institutions have a distinct role in its realization and implementation. Leal Filho et al., (2019a) emphasize that educational learning is fundamental to sustainable development goals and higher education institutions, through their teaching and learning experiences across various educational levels, play a significant role in the accomplishment of the SDGs (p. 287). They additionally emphasize that certain objectives under SDG 4 explicitly require intervention by universities, while other targets pertain to learning and teaching inside and by higher education institutions (Leal Filho et al., 2019a; Ferguson and Roofe, 2020).

Franco et al. (2018) state that higher education institutions (HEIs) are "paramount" in achieving the Sustainable Development Goals (SDGs) and have a "social responsibility" to teach students and communities sustainable development skills. According to Leal Filho et al. (2019a), colleges have a "moral obligation to contribute to the society in which they flourish." For years, higher education institutions have integrated sustainability into their curriculum, management, operational systems, and community participation, according to Leal Filho et al. (2019b). According to Leal Filho et al. (2019b), "universities impact local communities by exemplifying sustainability and offering socio-economic benefits to their host regions through graduates employed locally or by establishing living laboratories in collaboration with community stakeholders."

Conversely, Ferguson and Roofe (2020) said that participation in attaining SDG 4 objectives is a crucial obligation for higher education institutions, necessitating more systematic and coordinated endeavors to guarantee achievement. This research underscores a vital lesson for leaders and employees in higher education: the pressing necessity for higher education institutions to adopt a more deliberate approach in their advocacy efforts. This position requires bold and strategic activities to advocate for both personal interests and those of the persons served, as well as for stakeholders in areas beyond higher education. Research collaborations should advance this advocacy by enabling the practical and realistic instruction of information, skills, and values related to SDG 4 across diverse national settings. A far more coordinated strategy is required inside the industry and externally, at both elevated and subordinate levels. Furthermore, attaining the results of SDG 4 is essential for everybody, as it fosters harmony between humanity and the environment, ensuring a prosperous future for subsequent generations. Higher education institutions must assume a pivotal role in spearheading this initiative, transitioning from passive observers to active architects of the future direction.

2- What are the main challenges faced by SWD in HEIs?

According to the Convention on the Rights of Persons with Disabilities, individuals with disabilities are those who possess physical or mental impairments, whether long-term or short-term, and who do not have equal rights in health, education, and work possibilities. The Convention on the Rights of Persons with Disabilities defines individuals with disabilities as those who have long-term physical, mental, intellectual, or sensory impairments that, when confronted with various barriers, may impede their complete and effective participation in society. The United Nations and the disability community provide a definition that highlights the inability of individuals with disabilities to fulfill their rights to participate in society if obstacles prevent them from doing so in various aspects of life (United Nations, 2006).

Despite their perceived minority status, the rights of individuals with disabilities are just as important as those of other societal groups. The rights of those with disabilities must not be overlooked, particularly concerning education, notably higher education. We observe a consistent annual influx of students with impairments into higher education institutions. Furthermore, students with disabilities possess the right to access a supportive and pleasant atmosphere favorable to their pursuit of knowledge. Consequently, both public and private organizations must provide an appropriate atmosphere for those seeking knowledge. Nonetheless, several concerns and challenges emerge when individuals with disabilities seek to advance their education to a higher level (Amin et al., 2021).

Muray et al. (2009) indicate that impaired students who gain admission to higher education institutions frequently encounter several challenges in their academic pursuits. One of the most formidable hurdles encountered by students with impairments is the institution's readiness to accommodate them. The faculty's lack of comprehension of handicapped students further complicates the accommodation of those with special needs, as they are unfamiliar with the available resources on campus. The problems encountered arise not only from the institution itself but also from many sources, including peers, instructors, and fellow students at the higher education institution (Hasnah et al., 2010). Highlighting the unique requirements of impaired pupils is also crucial. This is due to their requirement for increased attention and specialized support relative to other pupils. Students with impairments require specialized facilities and support services to facilitate their study at higher education institutions. Furthermore, AlTaleb et al. (2024) documented the preliminary codes and subthemes of the obstacles adversely affecting the quality of the learning experience for students with disabilities in higher education institutions, as seen in Table 1. Consequently, pertinent stakeholders must furnish diverse facilities to enhance the quality of the learning experience for students with disabilities in higher education institutions.

Table 1. The initial codes and subthemes of the barriers in higher learning of students with disabilities

Initial codes	Subthemes
Inaccessible Classroom chairs and tables Improper air conditioning Heavy classroom doors	Improper Internal Design of classrooms
Narrow corridors Slippery toilet floors Preoccupied toilets by non-disabled students	Improper construction of restroom area and services provided
The door is difficult to be pushed or pulled No information of services	Heavy College Entrance Doors Lack of Orientation to SWD about the Services provided to them.
Inappropriate attitude Underestimation	Lack of Academic Support
High bench Uncomfortable stools Unsafe floor power socket Improper cafeteria furniture	Improper Internal Design of Laboratories
Lack of special queue for SwD in cafeteria Inaccessible vending machine Elevators or escalators not working	Limited Non-academic services Malfunctioning of Elevators and escalators
Uneven floors of the outside areas of the university campus	External structures of campus

Source: (AlTaleb et al., 2024)

The facilities required by students with disabilities differ from those needed by non-disabled students (Abu Bakar et al., 2014). Visually challenged students require specialized support equipment, including computers and assistive software, particularly in libraries. Visually handicapped pupils who are entirely blind require Braille reading aids. Furthermore, amenities, including buildings equipped with utilities, parking, elevators, etc., require enhancement. Additionally, students with impairments require support services from their social environment to enhance their quality of life (Roslinda et al., 2013).

3-*What effective strategies can be implemented in HEIs to improve the overall learning experience for SWD?*

Enhancing the educational experience for students with disabilities (SWD) in higher education necessitates the adoption of effective and varied techniques. These tactics include cultivating an inclusive academic atmosphere, guaranteeing the provision of accessible resources, and offering support services specifically designed to address the distinct requirements of students with disabilities. By implementing a holistic

strategy, higher education institutions may improve the academic achievement and overall experience of students with disabilities, fostering fairness and inclusion within the educational framework. These tactics encompass several methodologies, including:

3.1Enhancing the infrastructure of universities and facilities, as well as the equipment for students with disabilities.

Support is necessary for the advancement of Disability-inclusive education for college students. This can be achieved by implementing university regulations that safeguard students' rights to pursue their educational goals. Moreover, university architecture should incorporate accommodations for SWD. Moreover, the university should mandate regular repair of its automated doors, elevators, escalators, metro, and bathrooms to optimize the utilization of these essential facilities. To achieve inclusive education, we must afford opportunities and equal treatment to students with disabilities. Active involvement of students with disabilities in developing procedures and policies related to them would enhance their overall learning experience and foster more independence and confidence (Duerstock & Shingledecker, 2014). An additional critical issue to take into account is the training necessary for both teachers and students on the equipment the university offers for students with disabilities. Academic personnel, administrative staff, and students can accomplish this by organizing regular seminars on subjects pertaining to SWD. Furthermore, comprehending the challenges, barriers, and requirements of SWD will significantly aid in identifying and executing sustainable, fair, and quantifiable results (AlTaleb et al., 2024).

Students with disabilities in higher education reported experiencing disempowerment, marginalization, and a lack of visibility. They often conceal their physical conditions due to feelings of unacceptance stemming from the extent of help they require (Ntombela, R. Soobrayen, 2013). Consequently, Social encouragement is indispensable in university and can be defined as the provision of attention, assistance, and respect by a collective or individual grouping. Participants in the present research regarded social interaction as a guide, consistent with previous research results (Babic and Dowling, 2015). Both familial and non-familial individuals saw this form of support as a crucial element that could affect their self-esteem and facilitate their academic success (Lee and Choi, 2011). Conversely, AlTaleb et al. (2024) delineate the supportive factors and mechanisms of achievement that positively influence and enhance the educational learning experience for students with disabilities in higher education, as seen in Table 2.

Table 2. Supportive Factors and Mechanisms of Achievement for Enhancing Educational Learning Experience for Students with Disabilities in the Higher Education

Supportive Factors	Mechanisms of Achievement
Accessible Elevators Accessible Toilets Properly accommodated campus structure Accessible Classrooms	Proper Infrastructure
Family Support Academic Staff Support Admin Staff Support Colleagues' Support	Positive Social Support
Metro with Accessibility System	Accessible Transportation System
Establishment of Student Support System	Availability of Student with Disability Support Center
Accessible Blackboard	Accessible Electronic Services

University's Website and Banner Digital Library	
Students' Email	

Source: (AlTaleb et al., 2024)

University administrations must adopt a proactive stance in recognizing the obstacles encountered by students with disabilities and work in conjunction with both administrative and academic personnel to formulate customized action plans. It is essential to enhance awareness of the rights and needs of these students among the whole campus community, including non-disabled peers, using effective techniques such as online campaigns and integration programs. Universities must create specialized units and committees to assist and empower these students, guaranteeing that every public school possesses a service unit that systematically caters to their requirements and therefore offers a centralized resource for advocacy and the voicing of concerns. Furthermore, we must equip all campus facilities with essential and specialized amenities that comply with universal design standards, such as accessible pathways, elevators, bathrooms, parking, ramps, and clear signage. Transportation services, such as buses or specialized vans, must provide mobility for children with impairments. Moreover, university online systems and portals require updates to improve accessibility through features such as audio choices, and libraries should establish mechanisms to aid students in finding reference resources. Proactive psychological and counseling services are vital for the mental health support of all students with impairments. Ultimately, all stakeholders, particularly university administrations, must assume a proactive and effective role in acknowledging and supporting the rights and needs of these students (Amin et al., 2021).

3.2 Enhancing the quality of services provided by support centers for students with disabilities in higher education institutions.

The support center for impaired students offers various academic and non-academic services designed to aid students with disabilities during their university experience. Prior studies demonstrate that ongoing assistance promotes educational fairness and enables students to realize their full potential, regardless of the obstacles they face. Furthermore, it is essential to enhance the availability of support services to ensure that every student at college may participate equitably in both academic social and social domains. Couzens et al. (2015) contend that effective support relies on a thorough assessment of students' specific needs. The student support center has been essential in promoting student engagement in many social events at the university. This aligns with the research findings of Mbuvha (2019), which indicated that students with diverse disabilities predominantly concurred that academic support from the Disability Assistance Unit substantially enhanced their academic performance. As a result, students view the support center as an enabler rather than an obstacle (AlTaleb et al., 2024).

3.3 Activating orientation sessions for students with and without disabilities, as well as for academic and non-academic staff.

The absence of guidance concerning the services accessible for SWD and their particular requirements becomes a substantial obstacle. Academic personnel frequently undervalue the unique needs and expectations of students with disabilities, which can adversely impact their educational experiences and academic success. This may arise from unfavorable perceptions among faculty toward these students and the obstacles they encounter in obtaining their degrees (Mutanga, 2017). Moreover, it seems that academic personnel possess a constrained comprehension of diverse medical diseases and their severity, resulting in misconceptions or misinterpretations of students' academic requirements. Zongozzi et al. (2020) assert that a limited number of trained faculty members can proficiently interact with students with disabilities (SWD). The deficiency in training has led to unsatisfactory performance and insufficient assistance for SWD, thereby affecting their academic achievement and engagement in everyday activities.

Fernandez (2021) examined the notion of inclusion in education and its effects on students with disabilities, highlighting the necessity for higher education academics to use inclusive pedagogical strategies that promote cooperation among students. He discussed the methodology of "digital collaborative making" as a novel research strategy that acknowledges the diversity of identities and experiences in classrooms while promoting collaboration. The analysis of student projects in the "Digital Lives" course revealed that

students with disabilities could effectively interact with their non-disabled counterparts to evaluate the societal implications of digital technology. An issue was observed about the restricted possibilities for non-disabled students to communicate with their impaired peers, underscoring the necessity to improve inclusion via more engaging group projects. The findings underscored that inclusion is a continuous and dynamic process, promoting the creation of makerspaces that cater to all individuals while eschewing conventional narratives that depict disability through the prism of heroism or charity (Fernandez, 2021).

Conversely, Schwartz (1968) posits that knowledge impacts both human behavior and action. Wicklund (1979) asserts that an individual's knowledge influences their behavior, promoting more consistency and adherence to cultural standards. Awareness influences human ideas, attitudes, and behaviors (Fabrigar et al., 2006). Awareness of infirmity is one of the most significant forms of consciousness in human existence. It is characterized as informing the public of impairments and individuals with disabilities from several perspectives, including their rights, suitable treatment, and recognition as equal citizens (Chae et al., 2019). Furthermore, awareness of disability is essential for establishing fairness for those with impairments in any society. We noted a deficiency in disability awareness. Consequently, it is important to enhance this understanding among university students. There exists a basic necessity to offer programs and/or courses on disability (Madhesh, 2022). Awareness of disability is crucial for both individuals and institutions. Disability awareness initiatives seek to increase understanding of impairments, fostering positive attitudes and acceptance among the public toward those with disabilities (Heymani et al., 2020; Madhesh, 2022).

4-What role does technology play in supporting SWD and how can technological tools be better integrated into the educational process?

Physical disabilities should not limit the type of work students can undertake; it is crucial to acknowledge that their educational experience may have practical applications. Parallel technology, lecture recordings, and real-time transcription could enhance the educational experience for students with disabilities. Duerstock et al., (2014) proposed various strategies for leveraging innovation to bridge gaps and create a field-based educational environment. Another crucial issue to consider is the training required for both educators and students about the resources the university provides for students with disabilities. Academic personnel, administrative staff, and students can accomplish this by organizing regular seminars on subjects pertaining to SWD. In summary, comprehending the challenges and requirements of SWD will significantly aid in achieving and executing sustainable, fair, and quantifiable results (AlTaleb et al., 2024).

Assistive technology can provide intellectual, psychological, and social advantages for students with disabilities. Assistive technology users and officers must recognize that factors such as insufficient training, device inadequacies, limited external support, and the difficulty of navigating multiple information sources can impede effective assistive technology utilization and consequently limit engagement in higher education. Future assistive technology strategies ought to concentrate on using mainstream devices as assistive technology for all students, promoting inclusion and mitigating stigma (McNicholl et al., 2019).

If we prioritize accessibility in its design process, distance learning becomes a viable alternative for students with impairments. To achieve equitable participation among prospective students, both with and without impairments, universal design principles must be included in distant learning programs to ensure that educational services are available to all at any time. Consequently, the Ministry of Education, in conjunction with other organizations, should contemplate these concepts throughout the evaluation and development of their alternative technological platforms and tools. Policies must be implemented to ensure that students with disabilities have access to remote learning programs, as mandated by Section 504 of the Vocational Rehabilitation Act and the ADA. Furthermore, we should consider the involvement of special education instructors, students with disabilities, and their parents in the development process (Alsamiri et al., 2022).

The introduction of ChatGPT has raised substantial concerns over academic integrity in higher education. Some commentators assert that generative artificial intelligence (AI) tools like ChatGPT can improve student learning; therefore, academics should modify their teaching and assessment methods to accommodate the new reality of an AI-accessible world. Notwithstanding this significant discourse, there exists a paucity of scholarly work about ChatGPT and other generative AI instruments. This article uses

content analysis to investigate 100 news items about the disruption of higher education by ChatGPT, with a focus on Australia, New Zealand, the United States, and the United Kingdom. It examines numerous critical issues, including institutional responses, concerns over academic integrity, the limitations and deficiencies of AI tool outputs, and prospects for student learning. The data indicates a dichotomy in public discourse and university reactions, mostly centered on issues of academic integrity and prospects for new assessment design. There has been little public discourse on ChatGPT's ability to improve engagement and achievement for students from underprivileged backgrounds. Likewise, the representation of student perspectives in media publications has been inadequate thus far. This essay examines these developments and the influence of AI tools on university student learning.

Despite the considerable debate around the publication of ChatGPT and its ramifications for higher education, distinct opportunities exist to improve student learning and accessibility. This content analysis of news items revealed that public discourse and university responses about ChatGPT predominantly center on issues of academic integrity and creative assessment design. The literature indicates an absence of student input in the ongoing discourse and suggests that artificial intelligence (AI) technologies might improve student achievement and engagement among disadvantaged populations. Academics and university leaders must recognize the frameworks they select for media engagement, since news coverage can shape societal norms about student cheating behavior and public impressions of colleges. This underscores the necessity for more study and discourse regarding the ramifications of AI technologies, including ethical use, creative pedagogical approaches, and the assurance of fair access to educational chances. As these technologies progress, it is essential for institutions to adapt and integrate AI tools to enhance student learning and equip students for the challenges of a more digital landscape. (Sullivan et al., 2023).

We examine ChatGPT's capabilities as an assistive technology in the context of universal design for learning, offering specialized assistance to college students with impairments. As institutions of higher education endeavor to foster inclusive practices, the adoption of Universal Design for Learning principles has become increasingly important. ChatGPT's interactive conversational interface effectively matches with Universal Design for Learning, providing tailored support, enhancing understanding, and fostering engagement among a varied range of learners. Ayala (2023) shows multiple examples that align with the universal design framework and meet the needs of students using accessible and assistive services on a college campus.

ChatGPT significantly transforms higher education by improving learning experiences for students with impairments. Its sophisticated natural language processing capabilities enable students to pose inquiries, request explanations, and obtain customized materials, including rubrics, study guides, and practice exams, all intended to accommodate varied learning requirements. ChatGPT enhances comprehension of topics by elucidating them in diverse manners and providing examples in numerous languages, thereby promoting inclusivity. ChatGPT provides a secure environment for students with speech and language impairments to refine communication skills, participate in dialogues, and get tailored feedback at their own speed. This interactive tool promotes active engagement, enabling students to pose inquiries and interact with course content, therefore cultivating a more accessible and inclusive educational atmosphere. ChatGPT's capacity to provide prompt, tailored replies encourages students to assume responsibility for their educational pursuits, guaranteeing that learning materials are available to everyone, irrespective of communication obstacles (Ayala, 2023). Furthermore, ChatGPT can increase accessibility services for those with impairments by offering audio descriptions of visual information or textual transcripts of videos, promoting improved access and equitable benefits from library services for all users (Mali and Deshmukh, 2023).

Conclusion

All students, including individuals with disabilities, constitute a substantial investment by higher education institutions in their achievement and future prospects. Consequently, higher education institutions must offer a thorough and structured array of services that cater to the distinct needs of every student. This system must gather, evaluate, and respond to a diverse array of data to guarantee the successful fulfillment of these demands. Educational policymakers at higher education institutions must formulate strategies and policies that facilitate the attainment of superior standards for the student experience inside their

institutions. Higher education institutions can achieve this by ensuring adequate infrastructure for their educational and daily activities and by implementing orientation programs for students with disabilities before their first day of study to familiarize them with the services they offer. Moreover, it is imperative to provide support facilities for students with impairments, staffed by experienced professionals. Furthermore, orientation programs must be implemented for both academic and non-academic personnel to enhance understanding of interactions with diverse impairments among students and to deliver requisite support customized to each individual's need. We should employ contemporary technology, such as ChatGPT and remote learning, to enhance the student experience in university life and to fully utilize their potential in global national development initiatives.

Acknowledgements

References

Abu Bakar, A., Zakaria, A.C, Mahmoud, A., & Naziaty M. Y. (2014). The response of accessibility infrastructures for PWD to National Disability Policies in higher instituations of developing countries: Case study of Ahmadu Bello University, Zarian and University of Malaya, Malaysia. Journal of Surveying, Construction and Property, 5(1), 1-16.

Alsamiri, Y. A., Alsawalem, I. M., Hussain, M. A., Al Blaihi, A. A., & Aljehany, M. S. (2022). Providing accessible distance learning for students with disabilities in Saudi Arabia. International Journal of Advanced and Applied Sciences, 9 (1), 34-40.

AlTaleb, H. M., Alsaleh, D. A., Alshammari, A. S., Alsomairy. S. M., Alsuaqir, S. A., Alsaleem, L. A., Omer, A. B, Khan, R., & Alwhaibi, R. M. (2023). Facilitators and barriers to learning faced by female students with disability in higher education. Heliyon, 10, https://doi.org/10.1016/j.heliyon.2024.e30774

Amin, A. S., Sarnon, N., Akhir, N. M., Zakaria, S. M., & Badri, R. N.F. R. Z. (2023). Main Challenges of Students with Visual Impairment at Higher Education Institutions. International Journal of Academic Research in Progressive Education and Development, 10 (1),623-634. http://dx.doi.org/10.6007/IJARPED/v10-i1/9682

Ayala, S. (2023). Case Story ChatGPT as a Universal Design for Learning Tool Supporting College Students with Disabilities. Educational Renaissance, 12, 22-40.

Babic, M. M., & Dowling, M. (2015). Social support, the presence of barriers and ideas for the future from students with disabilities in the higher education system in Croatia, Disability & Society, 30 (4),614–629.

Chae, S., Park, E.-Y., & Shin, M. (2019). School-based interventions for improving disability awareness and attitudes towards disability of students without disabilities: A meta-analysis. International Journal of Disability, Development and Education, 66(4), 343–361. https://doi.org/10.1080/1034912X.2018.1439572

Couzens, D., Poed, S., Kataoka, M., Brandon. A., Hartley, J. & Keen, D. (2015). Support for Students with Hidden Disabilities in Universities: A Case Study, International Journal of Disability, Development and Education, 62(1), 24-41, https://doi.org/10.1080/1034912X.2014.984592

Cox, B., Thompson, K., Anderson, A., Mintz, A., Locks, T., Morgan, L., Edelstein, J., & Wolz, A. (2017). College experiences for students with AutismSpectrum Disorder: Personal identity, public disclosure, and institutional support. Journal of College Student Development, 58, 71-87.

Duerstock, B., & Shingledecker, C. (2014). From College to Careers: Fostering Inclusion of Persons with Disabilities in STEM, American Association for the Advancement of Science, Washington. USA.

Fabrigar, L.R., Petty, R.E., Smith, S.M., & Crites, S. L. (2006). Understanding knowledge effects on attitude-behavior consistency: the role of relevance, complexity, and amount of knowledge. Journal of Personality and Social Psychology, 90 (4), 556–577.

Fabrigar, L.R., Petty, R.E., Smith, S.M., & Crites, S. M. (2006). Understanding knowledge effects on attitude-behavior consistency: the role of relevance, complexity, and amount of knowledge. Journal of Personality and Social Psychology, 90(4), 556–577.

Ferguson, T., & and Roofe, C. G. (2020). SDG 4 in higher education: challenges and opportunities. International Journal of Sustainability in Higher Education, 21 (5), 959-975. DOI 10.1108/IJSHE-12-2019-0353.

Fernandez, S. (2021). Making space in higher education: disability, digital technology, and the inclusive prospect of digital collaborative making. International Journal of Inclusive Education, 25(12), 1375-1390. https://doi.org/10.1080/13603116.2019.1610806

Franco, I., Saito, O., Vaughter, P., Whereat, J., Kanie, N., & Takemoto, K. (2018). Higher education for sustainable development: actioning the global goals in policy, curriculum and practice. Sustainability Science, 4 (6), 1621-1642, doi: 10.1007/s11625-018-0628-4.

Hasnah, T., Arifin, T. M., Hanif, M. Y., Mokhtar, M. T., & Nur Hazwani, H. (2010). Knowledge and attitude of peers towards students with disabilities in malaysian public institute of higher education. Asian Journal of Teaching and Learning in Higher Education, 2(2), 22-34.

Heymani, S., Pillay, D., De Andrade, V., Roos, R., & Sekome, K., (2020). A transformative approach to disability awareness, driven by people with disabilities. South African Health Review, 1, 1–9.

Hillier, A., Goldstein, J., Murphy, D., Trietsch, R.,Keeves, J., Mendes, E., & Queenan, A. (2018). Supporting university students with Autism Spectrum Disorder. Autism, The International Journal of Research & Practice, 22, 20-28.

interpersonal behavior. Sociometry. 31 (4), 355–369.

Kilpatrick, S., S. Johns, R. Barnes, S. Fischer, D. McLennan, and K. Magnussen. (2017). Exploring the Retention and Success of Students with Disabilities in Australian Higher Education. International Journal of Inclusive Education 21: 747–762. doi:10.1080/13603116.2016.1251980.

Kirk, T.N., Haegele, J.A., & McKay, C. (2021). Exploring dignity among elite athletes with disabilities during a sport-focused disability awareness program. Sport, Education and Society, 26, (2), 148–160

Leal Filho, W., Shiel, C., Paco, A., Mifsud, M., Ávila, L., Brandli, L., Molthan-Hill, P., Pace, P., Azeiteiro, U., Vargas, V., & Caeiro, S. (2019a). Sustainable development goals and sustainability teaching at universities: falling behind or getting ahead of the pack?, Journal of Cleaner Production, 232, 285-294.

Leal Filho, W., Vargas, V., Salvia, A., Brandli, L., Pallant, E., Klavins, M., Ray, S., Moggi, S., Maruna, M., Conticelli, E., Ayanore, M., Radovic, V., Gupta, B., Sen, S., Paco, A., Michalopoulou, E., Saikim, F., Koh, H., Frankenberger, F., Kanchanamukda, W., Antonio da Cunha, D., Akib, N., Clarke, A., Wall, T. and Vaccari, M. (2019b). The role of higher education institutions in sustainability initiatives at the local level. Journal of Cleaner Production, 233,1004-1015.

Lee, Y, & Choi, J. (2011). A review of online course dropout research: implications for practice and future research, Educational technology research and development, 59 (5), 593–618.

Madhesh, A. (2022). Awareness of disability among Saudi university graduates. Heliyon 8 (2022) e11647. https://doi.org/10.1016/j.heliyon.2022.e11647

Mali. T. S., & Deshmukh, R. K. (2023). Use of ChatGPT in Library Services. International Journal of Creative Research Thoughts, 11 (4), 264-666.

Mbuvha, T. (2019). Kinds of support offered by the disability unit to students with disabilities at institutions of higher learning in South Africa: a case a case study of the University of Venda. Journal of Student Affairs in Africa, 7 (2), 57 7

McNicholl, A., Casey, H., Desmond, D. & Gallagher, P. (2019). The impact of assistive technology use for students with disabilities in higher education: a systematic review, Disability and Rehabilitation: Assistive Technology, https://doi.org/10.1080/17483107.2019.1642395

Monforte, J., Úbeda-Colomer, J., Pans, M., Pérez-Samaniego, V., & José Devís-Devís, J. (2021). Environmental barriers and facilitators to physical activity among university students with physical disability-A qualitative study in Spain. International Journal of Environmental Research and Public Health. 18 (2), 464. https://doi.org/10.3390/ijerph18020464

Morgan, C. (2023) The experiences of disabled people in the United Arab Emirates: Barriers to participation in higher education and employment. Disability & Society, 38:3, 421-444, https://doi.org/10.1080/09687599.2021.1930520

Muray, C., Lombardi, A., Wren, C. T., & Keys, C. (2009). Associations between prior disability focused training and disability-related attitudes and perceptions among university faculty. Learning Disability Quarterly, 32(2), 87-100.

Mutanga, O. (2017). Students with disabilities' experience in South African higher education – a synthesis of literature. South African Journal of Higher Education, 31 (1),135–154.

Ntombela, S., & Soobrayen, R. (2013). Access challenges for students with disabilities at the university of KwaZulu-natal: a situational analysis of the edgewood campus, Journal of Social Sciences, 37 (2),149–155.

Roslinda, A., Aziah, N. A., Abu Bakar, I., Halimaton, A., & Azman, L. K. (2013). What do the disable students need? A study on the need of the special educations needs (SEN) learners in Malaysian public Universities. The European Journal of Social & Behavioral Sciences, 602-623.

Safer, A., Farmer, L., & Song, B. (2020). Quantifying Difficulties of University Students with Disabilities. Journal of Postsecondary Education and Disability, 33(1), 5-21.

Schwartz, S.H., (1968). Awareness of consequences and the influence of moral norms on

Sullivan, M. Kelly, A., & McLaughlan, P. (2023). ChatGPT in higher education: Considerations for academic integrity and student learning. Journal of Applied Learning & Teaching, 6 (1), 1-10, http://journals.sfu.ca/jalt/index.php/jalt/index

Tonegawa, Y. (2023). Education in SDGs: What is Inclusive and Equitable Quality Education? Sustainable Development Disciplines for Humanity. Shujiro Urata, Kazuo Kuroda, Yoshiko Tonegawa.

United Nations. (2006). Convention on the Rights of Persons with Disabilities, https://legal.un.org/avl/ha/crpd/crpd.html

United Nations. (2015). Transforming our world: the 2030 agenda for sustainable development, available at: https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf.

Vaughter, P. (2018). Beacons, not towers: How higher education can help achieve the sustainable development goals", Policy Brief 13, United Nations University Institute for the Advanced Study of Sustainability, available at: www.rcenetwork.org/portal/sites/default/files/UNU-IAS-PBNo13-2018.pdf

who becomes self-aware is more likely to act consistently, be faithful to societal norms, and give accurate reports about himself. American Scientist, 67 (2), 187–193.

Wicklund, R.A., (1979). The influence of self-awareness on human behavior: the person

Willetts, D., 2017. A university Education. Oxford University Press, Oxford (UK).

Williams, V., Tarleton, B., Heslop, P., Porter, S., Sass, B., Blue, S., Merchant, W., & Mason-Angelow, V. (2018). Understanding Disabling Barriers: A Fruitful Partnership between Disability Studies and Social Practices?. Disability & Society 33 (2): 157–174. doi:10.1080/09687599.2017.1401527.

Zongozzi, N. (2020). International Journal of Disability, Development and education ISSN: accessible quality higher education for students with disabilities in a South African open distance and e-learning institution: challenges. International Journal of Disability, Development and Education, 69 (5), 1645–1657.