Sci. Technol. Arts Res. J., Oct.– Dec. 2024, 13(4), 15-26
DOI: https://doi.org/10.20372/star.V13.i4.02
ISSN: 2226-7522 (Print) and 2305-3372 (Online)
Science, Technology and Arts Research Journal
Sci. Technol. Arts Res. J., Oct. – Dec. 2024, 13(4), 15-26
Journal Homepage: https://journals.wgu.edu.et
Original Research

Technology Integration for Students with Disabilities in Creating Inclusive Learning Environment

Mengistu Debele Gerbi

Department of Special Needs and Inclusive Education, Institute of Education and Behavioral Science, Ambo University, P. O. Box 19, Ambo, Ethiopia

Abstract

Educational technology has immense potential for improving quality of education, fostering well-being, and inclusion of students with disabilities. The purpose of this study was to investigate roles of academic leaders in creating inclusive learning environment through technology integration. To this end, explanatory mixed methods were employed. Participants of the study were 32 academic leaders, 62 instructors, and 31 students with disabilities. Two data collect instruments were used: questionnaire and interview. Results show that correlation between academic leaders and students with disabilities was (r = - 0.408) and between instructors and students with disabilities was (r = 0.253) and there is low educational technology integration at Ambo University. Multiple regression results (R (3, 27) = 2.909, p >.05, with R^2 = 0.244, adjusted R^2 = 0.160) reveal that inclusive leadership and vision; inclusive support, management, and operations; and social, legal, and ethical issues are not significant predictors of students' technology usage. Problems with implementing strategic plan, low enrollment rate of students with disabilities, weak collaboration between stakeholders, low level of enforcement and enactment of policy, and inaccessible features were accounted for the low technology integration. University's community should work together to create inclusive environment for students with disabilities through technology integration.

Article Information

Article History:
Received: 16-06-2024
Revised : 18-10-2024
Accepted : 30-12-2024

Keywords:
Academic Leaders, Disabilities, Inclusive Environment, Technology Integration

*Corresponding Author:

Mengistu Debele Gerbi

E-mail: madegaorman@gmail.com

INTRODUCTION

Educational technology has immense potential for improving the quality of education, fostering students' well-being, and inclusion in higher education institutions. It has the ability to open several chances for persons with or without disabilities. It is the greatest educational input in the 21st-century education system. To bring the immense potential of educational technology in creating an inclusive learning environment to completion, systemic and organized actions involving the whole university communities are demanded (Panesi et al., 2020). The modality of delivering education is changing fast, on the other hand; educational budget for educating children is decreasing in poor nations. At such times of rapid global changes and challenges, most often, students with disabilities are at highest

risk of poor academic achievement. While technology can be integrated to make students' lives easy and straightforward, the integration and use of educational technology for educating students with disabilities (SWD) in many developing countries are deemed to be at an early stage.

Inclusive higher educational institutions are the basic institutes which mandated to defend rights of students with disabilities (Zhang et al., 2018). The international legal framework regarding Convention on the Rights of Persons with Disabilities outlines that states parties shall take effective and appropriate measures to enable persons with disabilities (PWD) to achieve and sustain maximum autonomous, complete physical, social, vocational, and psycho-emotional capacity; full inclusion and engagement in all aspects of life. Thus, the provision of educational technology to SWD can help in strengthening teaching-learning process and ensure all learners get quality inclusive education.

Accessibility to educational technology is vital for students with disabilities. It necessitates the efficient implementation of inclusive quality education (Uygur et al., 2020). Educational technology is utilized in educational programs and practices to help students with special educational needs. Computer-assisted learning (CAL) is among educational technologies that help students with hearing impairment, visual impairment, and physical disabilities (Silman et al., 2017). Moreover, with the approach called 'full inclusion', students with disabilities should be offered educational technology to help them educate in their respective fields. Given the increasing enrollment rate of SWD in higher education institutions (HEI), the imperative is that, all the digital experiences across the universities ought to be accessible. Failure to do so adversely affects and puts SWD in a disadvantageous position compared to their nondisabled peers, especially when seeking employment (Fichten et al., 2020).

The Ethiopian Higher Education Proclamation No 650/2009 states that all necessary and feasible supports such as pocket money used to academic facility are to be provided to SWD. Support such as sign language, amenable facilities, relocating classrooms, and accessibility to physical environments, alternative testing procedures, and educational auxiliary aids should be provided to students with disabilities. Creating inclusive higher education institutions for students with disabilities (SWD) is among major leadership responsibility for academic leaders at universities.

Even though the context is different in each nation, region, and local, every academic leader can play roles to create and support inclusive higher education (DeMatthews et al., 2020). It is important to notice that as educational leaders develop high aspirations for the education of all learners, they can create a high-quality inclusive learning environment by targeting educational budgets. They can initiate interventions to ensure maximum positive impacts for all, including the most vulnerable. This helps to narrowing of the gaps and to attain positive outcomes. As Ethiopia government principle, students with physical disabilities shall possess the following provisions: firstly, institutions such as higher education shall make their programs amenable and to be at the least restrictive physical features that accessible for students with physical disabilities. Secondly, institutions such as higher education, shall relocate

classrooms, plan for alternative testing, and provide numerous mobility aids (e.g. motor and manual wheelchairs) based on interest of students with physical disabilities. Thirdly, building construction designs, campus physical features such as ICT rooms, and other infrastructures such as walkways shall take into account the needs of SWD. Fourthly, institutions shall ensure that students with physical disabilities and other types of disabilities get necessary academic support, including tutorial, adaptation of curriculum and assessments methods.

In fact, there are many barriers that affect the provision of quality inclusive education for students with disabilities, particularly in developing countries. These barriers include inaccessible infrastructure and the absence of reasonable accommodations, e.g., educational technology integration (Zhang et al., 2018). Students with disabilities remain underrepresented in getting access to tertiary education as a matter of low attention to educational technology that helps their learning. Hence, higher education institutions (HEI) should be committed to providing inclusive learning environment for SWD (Zaki & Ismail, 2021).

The presence of inclusive higher education proclamation is a foundation to protect the educational rights of students with disabilities at universities. According to Zhang et al. (2018), university societies have to have positive attitude and psycho-emotion toward the rights of SWD. However, it appears academic leaders lack motivation, relevant knowledge, skills, intuition, and effective strategies to cope with the educational challenges of the SWD at HEI. In the 21st century, several types of assistive technologies have emerged in the field of special educational needs that can support the inclusion of SWD. Literatures in the area suggested three solutions for creating an inclusive learning environment in higher education. These are: (1) the utilization of tablets or personal computers for SWD in higher education; (2) the improvement of learning management system (LMS); and (3) the utilization of web-based (both synchronous and asynchronous) teaching and learning.

The issue of creating an inclusive learning environment through educational technology integration for students with disabilities is one of the most overlooked areas of research. Most of the previous research gave weight to factors such as enabling inclusiveness through engaging in work and productivity (Lysaght et al., 2017) and inclusion by preventing mobility barriers (Sherman & Sherman, 2013) that contribute to creating an inclusive environment.

Empirical studies and literatures on issues regarding technology integration to create inclusive learning environment at higher education for SWD remain insufficient (Zaki & Ismail, 2021). The purpose of this study was to investigate the roles of academic leaders in creating an inclusive learning environment through educational technology integration for students with disabilities. It focused solely on analyzing the extent of educational technology integration and investigating the roles of academic leaders in the process of creating an inclusive learning environment for SWD. To deal with the objective of this study, the following research questions were addressed:

To what extent did academic leaders integrate technology with the aim of creating an inclusive education system at Ambo University?

To what extent did students with disabilities use the integrated technology for their learning process at Ambo University?

What are the reasons behind the low provision of technology integration with the aim of creating an inclusive education at Ambo University?

METHODS AND MATERIALS

Research design

In order to facilitate data extraction to address the above research questions, researcher used an explanatory mixed-methods design. Mixed-methods research was used to come up with a more comprehensive understanding of the phenomenon under investigation. A mixed research approach is based on the assumptions of the pragmatism (Mertens, 2012). This research design helps to understand the social reality (Morgan, 2007). As a result, pragmatists rely more on a combination of quantitative and qualitative approaches to comprehend the dynamic reality (Morgan, 2007; Sale et al., 2002). Since data collection for this study occurred in sequence (QUAN-qaul), quantitative data first, and then qualitative data used in a supportive role. Hence, the standard of quantitative rigor was emphasized as being of utmost importance. In explanatory mixed-methods design, qualitative data fills conceptual gaps that can't be addressed by quantitative data.

Sampling technique and sample size

Using the comprehensive sampling method, all 35 students with disabilities are included. Five (5) academic leaders were selected using purposive sampling and one hundred eighty five (185) instructors were selected by using the stratified random sampling method from a total sample size of 234. To determine the sample size for both academic leaders and instructors, the researcher used the following formula

$n_k = \left(\frac{n}{N}\right) N_k$, Where: nk = the sample size for kth strata, Nk = the population size of the kth strata, N = the total population size, n = the total sample size.

For instructors:

$n_1 = \left(\frac{n}{N}\right) N_1, n_1 = \left(\frac{234}{561}\right) 444,$

$n_1 = (0.417)444,\ n_1 = 185.18 \sim 185$

For Academic Leader:

$n_2 = \left(\frac{n}{N}\right) N_2 = \left(\frac{234}{561}\right) 117$

$n_2 = (0.417)117, n_2 = 48.80 \sim 49$

Data collection instruments

The data gathering instruments used in study were questionnaire and semi-structured interview. The questionnaire was adapted from the work of Summak et al. (2010), and the interview was developed by the researcher. To assess the extent of technology integration at Ambo University, self-administered questionnaire was used for academic leaders, instructors, and SWD. Semi-structured interview was conducted with academic leaders. The interview was recorded and transcribed.

Methods of data analysis

A questionnaire was adopted and validated by experts. Data has been gathered from primary sources to obtain original information. The questionnaires have been administered to academic leaders, instructors, and students with disabilities at Ambo University. Specifically, the questionnaires were administered to the participants on all four campuses of Ambo University, namely Main campus, Hachaluu Hundessa campus, Gudar Mamo Mezamir campus, and Woliso campus.

After this, the researcher conducted interviews with the academic leaders of Ambo University. The questionnaires and interviews were self-administered by the researcher. To analyze the data gathered through questionnaire, both descriptive and inferential statistics were used. The data from the interview has been analyzed qualitatively. While analyzing qualitative data, the researcher went through organizing the data, transcribing the data, coding and organizing themes, and finally forming an interpretation of the data. Qualitative data were analyzed thematically.

Validity and reliability

The accuracy of the content validity of data gathering instrument has been checked by two experts (from Addis Ababa and Haromaya universities). Some amendments have been made based on feedback from experts. Moreover, the adopted data gathering instrument contained important variables that appropriately measured the desired issue under study. Cronbach α (internal consistency) reliability coefficients have been used for checking the reliability of coefficients that were conducted previously. All the variables that have been used to measure the academic leaders (inclusive leadership and vision; inclusive learning and teaching; inclusive support, management, and operations; and social, legal, and ethical issues), instructors' provision, and students usage of disabilities were checked using Cronbach's alpha, and the results were above expected and good. The following table shows the reliability coefficients for each of the measurements mentioned above. The reliability coefficients for the above seven variables are almost acceptable. As depicted in Table 1, the Cronbach alpha's for all variables are above 0.8, which is at a desired level.

Table 1

Reliability measurement

No	Variables	Total No of participants	No of Items.	Cronbach's α
1.	Inclusive leadership and vision	32	5	0.894
2.	Inclusive learning and teaching	32	6	0.914
3.	Inclusive support, management, and operations	32	8	0.896
4.	Social, legal, and ethical issues	32	4	0.883
5.	Academic Leaders	32	23	0.957
6.	Instructors	62	11	0.889
7.	Students with disabilities	31	19	0.885

RESULTS AND DISCUSSION

Demographic characteristics

As depicted in Table 2, the return rate of the questionnaires is low. However, because it fulfills the minimum requirements of the SPSS data analysis software, the researcher has proceeded with those returned questionnaires.

Table 2

Characteristics of participants (n=125)

Sources	Population	Sample	Return rate
Academic leaders	117	49	32
Instructors	444	185	62
Students with disabilities	35	35	31
Total	596	269	125

Extent of educational technological integr - ation

Descriptive statistics for the variables such as mean and standard deviation have been elaborated in Table 3. It shows that the mean score of inclusive learning and teaching (M = 2.4583) is lower than the rest of the variables. On the other hand, the mean score of social, legal, and ethical issues (M = 2.9688) is higher than the rest of other variables.

Table 3

Descriptive Statistics

No.	Variables	N	$\bar{x}$	SD
1.	Inclusive leadership and vision	32	2.7688	.95729
2.	Inclusive learning and teaching	32	2.4583	1.08261
3.	Inclusive support, management and operations	32	2.7656	.88772
4.	Social, legal, and ethical issues	32	2.9688	.98936
5.	Academic Leaders	32	2.7404	.85553
6.	Instructors	62	2.8842	.84308
7.	Students with Disabilities	31	2.5586	.67040

Correlation of all the variables with the measurement used for students with disabilities was computed. To find out the extent of how educational technology is integrated for the usage of students with disability in Ambo University, variables on academic leaders, instructors, and students with disabilities correlated.

Table 4

Pearson product moment correlation results (n=125)

No.	Variables	1.	2.	3.	4.	5.	6.	7.
1.	ILV	1						
2.	ILT	.627**	1					
3.	ISMO	-648**	.726**	1				
4.	SLEI	.595**	.714**	.798**	1			
5.	AL	.818**	.887**	.901**	.889**	1		
6.	I	-.286	-.314	-.318	-.369*	-.369*	1	
7.	SWD	-.403*	-.186	-.391*	-.469**	-.408*	.253	1

Key notes for Table.4: - Inclusive leadership and vision (ILV), Inclusive learning and teaching (ILT), inclusive support, management and operations (ISMO), Social, legal and ethical issues (SLEI), Academic leaders (AL), Instructors (I) and students with disabilities (SWD).

Table 4 shows that there are significant negative correlations between academic leaders' provision of educational technology integration and students' claim of technology usage (r = -.408). The relationship between inclusive leadership, vision, and usage of educational technology by SWD was investigated using Pearson product-moment correlation coefficient (r). There was a moderate, negative correlation between the two variables (r = - 0.403, P < .05, df = n1+n2+n3-3 = 122), with high scores of inclusive leadership and vision associated with lower scores of SWD technology usage. A weak negative correlation that was not significant has been found between the variables (r = - 0.186, P > .05, df = n1+n2+n3-3 = 122). This indicates that there is a negative relationship between inclusive learning and teaching scores with SWD scores on educational technology usage.

The Pearson product moment correlation coefficient was calculated for the relationship between inclusive support, management, and operations and SWD. A moderate negative correlation was found between those variables (r = - 0.391, P < .05, df = n1+n2+n3-3 = 122), with P value indicating a significant linear relationship between the two variables. Academic leaders' inclusive support, management, and operations tend to have opposite inclinations about the integration of technology when compared to the SWD view point. The Pearson product moment correlation coefficient was also computed for the relationship between social, legal, and ethical issues and SWD. A moderate negative correlation was found (r = - 0.469, P < .05, df = n1+n2+n3-3 = 122), and it indicated a significant linear relationship between the two variables. High scores of social, legal, and ethical issues associated with low scores of SWD on technology usage. This might be because of many factors. According to McNicholl et al. (2021), inadequate training on educational technology, inadequacies of educational technology devices, absence of external support, and the challenge of negotiating multiple information sources, can hinder effective usage in educational technology and thus restrict engagement in the higher education environment.

A Pearson product moment correlation coefficient was calculated for the relationship between academic leaders and SWD. A moderate negative correlation was found (r = -0.408, P < .05, df = n1+n2+n3-3 = 122), showing a significant linear relationship between the two variables. Academic leaders and SWD tend to have opposite view about the integration through technology for SWD. Finally, correlation was calculated examining the relationship between instructors and SWD. A weak positive correlation that was not significant was found (r = 0.253, P > .05, df = n1+n2+n3-3 = 122). Although the scores are going in the same direction the relationship between them is very low and indicates weak relation between instructors view and SWD view of technological integration in Ambo University.

As shown in the Table 4, the correlation results for academic leaders and instructors with SWD are moderate and low respectively, but there are still negative and positive results outlined. For example, when analyzing the first

four variables their correlation results are all negative. This shows they are moving in an opposite direction which can influence the result. The three measurements namely Inclusive leadership and vision; Inclusive support, management and operations; and social, legal and ethical issues tend to have significant negative relationship with SWD response but Inclusive learning and teaching did not have a significant relationship (-0.186) with SWD.

The correlational study findings for the first basic research question reveal that there is moderate negative correlation between academic leaders and students with disabilities (r = - 0.408). This means the extent of academic leaders to integrate technology for inclusive learning environment is not actually on process phase and needs much further work. The correlation between instructors and SWD is very weak (0.253) which indicates that there is low extent of technological integration done by instructors as part- and-parcel of academic leaders.

Uygur et al. (2020) stated that integration of technology into inclusive education has positive effects on students' learning. Wong et al. (2009) also stated that educational technologies play pivotal roles in creating an effective learning environment,

Table 5

Multiple regression results (n =31)

No	Predictors	B	SE_B	B	T	P
1	Constant	3.610	.389		9.277	.000
2	Inclusive leadership and vision	-.142	.154	-.206	-.924	. 363
3	Inclusive support, management and operations	.043	.224	.058	.194	.847
4	Social, legal and ethical issues	-.262	.191	-.393	-1.375	.180

Note: Dependent variable: usage of educational technology by students with disabilities

As indicated in Table 5, the three variables of academic leaders' traits are not significant predictors of SWD usage of educational technology (R^2 = 0.244, Adjusted R^2 = 0.160, R (3, 27) = 2.909, P = 0.053). Analysis of multiple regression shows that the overall regression (all the three models interned) were not statistically significant (R (3, 27) = 2.909, p > .05) with R^2 = 0.244 and adjusted R^2 = 0.160). Regression analysis result also shows that inclusive leadership and vision did not significantly predict the SWD scores on usage of technology (P = 0.363). The same goes for inclusive support, management and operations (P = 0.847). Moreover, Social, legal and ethical issues did not statistically predict SWD scores on usage of educational technology (P = 0.180).

Research depicted that if technology leaders expect instructors to integrate technology, they should attend to all aspects of technology leadership. According to Zhang et al. (2010), academic leaders are the key to the support system and play a very significant role in the course of developing inclusive higher education and ensuring that SWDs receive a quality higher education.

Roles of academic leaders

The commitment of academic leaders to enforce and enact policies by aligning

themselves with National Educational Technology Standards for Administrators (NETSA) standards of leadership and vision; learning and teaching; support, management, and operations, and social, legal, and ethical issues are very important. If academic leaders are not willing to adjust themselves with the above-mentioned standards, instructors may continue to have lower involvement in the integration of technology. Moreover, the recent study of Hitt and Tucker (2016) has identified the five overarching leadership domains: establishing and conveying the vision; facilitating a high-quality learning experience for students; building professional capacity; creating a supportive organization for learning; and connecting with external partners. These also suggest that academic leaders have important roles in facilitating the integration of technology in educational institutes.

This study revealed that the technological integration that is found in Ambo University is low and the reasons behind this can be accounted by the low implementation of strategic plan, the low enrollment of SWD, the weak collaboration of assigned personnel, the enforcement and enactment of policies being weak and other causes such as physical barriers, inaccessibility of proper technology, lack of trained personnel and shortage of assistive technology resources. Since, the implementation of technological integration falls in the hands of all concerned bodies of Ambo University; academic leaders both administrative and academia, instructors and the whole community of university should be able to work together to implement the technology integration to create an inclusive environment for students with disabilities in the campuses.

Reasons behind the low integration of educational technology

Theme 1: Planting and implementing strategic plan

The planning process to educational technology integration is not given due attention. Academic leaders have been asked to explain the reasons behind low technological integration in Ambo University to create inclusive learning environments for students with disabilities. Almost all the academic leaders have mentioned that planning is a crucial point to consider and pointed out their views as following:

Regarding this theme, academic leader 1 (AL1) stated that the *main problem in the university is that there is a lack of work on the planned activities, such as how to identify and assess those SWD.* AL2 also pointed out that *planning on how to support SWD by technology integration from the very beginning was not well organized and not given due attention.*

Theme 2: Enrollment rate of SWD

The process of creating an inclusive learning environment for SWD by technological integration is at an early stage. There is a low but increasing enrollment trend of SWD in Ambo University especially since the introduction of remedial program by Ministry of Education (MoE) in 2022.

Regarding this theme, academic leader 2 (AL2) stated that the *enrollment rate of students with disabilities in Ambo University is low, which may account for the low attention given to technological integration to support them.* AL3 also responded that the *notion of inclusiveness, or including all students with or*

without disabilities, is a recent phenomenon in the university.

Theme 3: Collaboration between stakeholders

The collaboration between stakeholders is weak. Interviewees forwarded some insights about these issues. Regarding this theme, AL1 stated that *stakeholders such as Department of Special Needs and Inclusive Education, Institute of Education and Behavioral Science, Gender and Disability Directorate, Students' Service Director, and managements are not fully involved in working together to create an inclusive learning environment.* AL4 also stated that *there is a lack of awareness and necessary collaboration among stakeholders regarding how to integrate technology and create an inclusive learning environment for SWD, and also there is low attention among stakeholders.* AL5 pointed out that *some leaders at our university are reluctant and ignorant to response to comments from professionals in Special Needs and Inclusive Education regarding constriction of accessible physical environment such as walkways.*

Theme 4: Enforcement and enactment of policies on inclusive higher education

Policies and strategies about inclusive higher education are not enforced and enacted properly. As mentioned in the background section of this study, there are many policies regarding SWD and how to accommodate for their needs.

Regarding this theme, AL5 stated that *taking action upon the already written policies of the country is very low, and personnel who are assigned to exercise these policies are not well aware of and not qualified on the issues of SWD. The main problem here is the absence of commitment of the assigned bodies to do their assigned works accordingly.*

Theme 5: Inaccessible of physical features

There are shortages of necessary facilities to create an inclusive learning environment. All the causes for low educational technological integration to create an inclusive learning environment are interrelated; barriers to physical features are the most common factors. Regarding this theme, AL3 stated that *there is a shortage of facilities such as accessible toilet, clinic, cafeteria, dormitories, classrooms; the inaccessibility of the technology itself (the internet, personal computer, digital library); a lack of personnel who are well aware of those technologies; and a resource shortage may account for the low technology integration.*

CONCLUSIONS

The role educational technology integration can play for students with disabilities in higher education has been a topic of interest in the 21st century education. There is low extent of educational technology integration in Ambo University to create inclusive learning environment for students with disabilities. Roles of academic leaders to create inclusive learning environment through educational technology integration was low. This conclusion drawn from correlation result between academic leaders and SWD, that was negatively correlated (r = - 0.408). The scores indicate that the more academic leaders claim they have integrated educational technology, the less confirmed by SWD regarding usage of educational technology. Correlation result between instructors and SWD consolidates the

above conclusion because the result of the correlation is low (r = 0.253). Academic leaders were not played their roles effectively and did not view educational technology integration from the dimension of inclusive leadership and vision; inclusive support, management and operations; social, legal and ethical issues. This conclusion drawn from the regression result of (P = 0.053) which implies that three traits were not significant predictors of SWD usage of educational technology.

Academic leaders and instructors should give due attention to collaborate and work together to enforce the policies outlined for SWD and they should be ready to make adjustments necessary for the proper integration of technology. Model of Technology-Supported Learning for Special Educational Needs Learners (MoTSEL) could be regarded as a comprehensive framework or model of assistive technology (AT) or technology-supported learning that covers all aspects of SWD life including teaching and learning, disability-friendly facilities, disability-friendly higher education administration as well as relationship between SWD and their non-disabled friends in higher education. Finally, as educational technology is known for making the lives of students with disabilities easier and effective, the use of educational technology should be given priority by higher education institutions for making the notion of inclusiveness an achievable task.

ACKNOWLEDGEMENTS

The author would like to acknowledge the support provided by the affiliated Colleges deans, Campus directors, instructors, and students with disability in Ambo University for providing valuable data to carry out this research.

DECLARATION

The author declares that there is no conflict of interest.

DATA AVAILABLITY STATEMENT

Data will be made available on request

REFERENCES

DeMatthews, D., Billingsley, B., McLeskey, J., & Sharma, U. (2020). Principal leadership for students with disabilities in effective inclusive schools. *Journal of Educational Administration*, *58*(5), 539-554. https://doi.org/10.1108/jea-10-2019-0177

Fichten, C., Olenik-Shemesh, D., Asuncion, J., Jorgensen, M., & Colwell, C. (2020). Higher education, information and communication technologies and students with disabilities: An overview of the current situation . *Improving accessible digital practices in higher education*, 21-44. https://doi.org/10.1007/978-3-030-37125-8_2

Hitt, D. H., & Tucker, P. D. (2016). Systematic review of key leader practices found to influence student achievement: A unified framework. *Review of educational research*, *86* (2), 531-569. https://doi.org/10.3102/0034654315614911

Lysaght, R., Petner-Array, J., Howell-Moneta, A., & Cobigo, V. (2017). Inclusion through work and productivity for persons with intellectual and developmental disabilities. *Journal of Applied Research in Intellectual Disabilities*, 30(5), 922-935. https://onlinelibrary.wiley.com/doi/10.1111/jar.12284

McNicholl, A., Casey, H., Desmond, D., & Gallagher, P. (2021). The impact of assistive technology use for students with disabilities in higher education: a systematic review. *Disability and rehabilitation:*

assistive Technology, *16* (2), 130-143. https://doi.org/10.1080/17483107.2019.1642395.

Mertens, D. M. (2012). What comes first? The paradigm or the approach? *Journal of Mixed Methods Research*, *6*(4), 255–257. https://doi.org/10. 1177/ 15586 89812 461574

Morgan, D. L. (2007). Paradigms lost and pragmatism regained: Methodological implications of combining qualitative and quantitative methods. *Journal of Mixed Methods Research*, *1*(1), 48–76. https://doi.org/ 10. 1177/ 23456 78906 292462

Panesi, S., Bocconi, S., & Ferlino, L. (2020). Promoting students' well-being and inclusion in schools through digital technologies: Perceptions of students, teachers, and school leaders in Italy expressed through SELFIE piloting activities. *Frontiers in psychology*, *11*, 1563. doi: 10.3389/fpsyg.2020.01563.

Sale, J. E. M., Lohfeld, L. H., & Brazil, K. (2002). Revisiting the quantitative-qualitative debate: Implications for mixed methods research. *Quality & Quantity*, *36*, 43–53. https:// doi.org/ 10. 1023/A: 1014301607 592

Sherman, J., & Sherman, S. (2013). Preventing mobility barriers to inclusion for people with intellectual disabilities. *Journal of Policy and Practice in Intellectual Disabilities* ,10 (4) , 271-276. https://doi.org/10.1111/jppi.12052

Silman, F., Yaratan, H., & Karanfiller, T. (2017). Use of assistive technology for teaching-learning and administrative processes for the visually impaired people. *Eurasia Journal of Mathematics, Science and Technology Education*, *13*(8), 4805-4813. DOI: 10.12973/eurasia.2017.00945a

Summak, M. S., Samancioğlu, M., & Bağlibel, M. (2010). Technology integration and assessment in educational settings. *Procedia-Social and Behavioral Sciences*, *2*(2), 1725-1729. doi:10.1016/j.sbspro.2010.03.973

Uygur, M., Ayçiçek, B., Doğrul, H., & Yanpar Yelken, T. (2020). Investigating stakeholders' views on technology integration: The role of educational leadership for sustainable inclusive education. *Sustainability*, *12*(24), 10354. doi:10.3390/su122410354

Wong, A.W., Chan, C.C.H., Li-Tsang, C.W.P., Lam, C.S. (2009). Competence of people with intellectual disabilities on using human-computer interface. *Res. Dev. Disabil. 30*, 107–123. https://doi.org/10.1016/j.ridd.2008.01.002

Zaki, N. H. M., & Ismail, Z. (2021). Towards Inclusive Education for Special Need Students in Higher Education from the Perspective of Faculty Members: A Systematic Literature Review. *Asian Journal of University Education*, *17*(4), 201-211. https://doi.org/10.24191/ajue.v17i4.16189.

Zhang, D., Landmark, L., Reber, A., Hsu, H., Kwok, O. M., & Benz, M. (2010). University faculty knowledge, beliefs, and practices in providing reasonable accommodations to students with disabilities. *Remedial and Special Education*, *31*(4), 276-286. https://doi.org/10.1177/0741932509338348

Zhang, Y., Rosen, S., Cheng, L., & Li, J. (2018). Inclusive Higher Education for Students with Disabilities in China: What Do the University Teachers Think? *Higher Education Studies*, *8* (4), 104-115. https://doi.org/10.5539/hes.v8n4p104