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STUDENTS 21ST CENTURY SKILL CHALLENGES: ZIMBABWEAN HIGHER EDUCATION

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Abstract

This research explores the skill challenges faced by students in the 21st century at a Zimbabwean higher education. The concept of 21st-century skills has emerged in recent years as a way to describe the skills that are necessary for success in the modern world. These skills include not only traditional academic skills, such as reading, writing, and mathematics, but also a range of other skills, such as critical thinking, creativity, communication, collaboration, and digital literacy. The study employs a qualitative method to investigate the extent to which students have the necessary skills to navigate the world of the 21st century, and the factors that may be contributing to skill gaps. The findings suggest that while students are generally confident in their digital literacy and ability to use technology, there are areas where they need further support, such as critical thinking, problem-solving, and collaboration. Additionally, skill challenges faced by students in the 21st century at a Zimbabwean higher institution include lack of access to technology and digital skills, lack of training and support for using technology for learning, lack of alignment between curriculum and 21st-century skills, and impact of cultural and social factors on technology use. These findings have implications for the university and other educational institutions and highlight the need for a comprehensive approach to addressing skill challenges. Recommendations for addressing skill challenges faced by students in the 21st century at a Zimbabwean higher institution include the provision of adequate resources, such as computers, internet access, and digital literacy training, adoption of a learner-centered pedagogical approach that encourages the use of technology for learning, a collaboration between universities and other stakeholders, such as government and industry, to ensure that 21st-century skills are developed and utilized effectively and development of policies that support the integration of technology in education and promote digital literacy.

Keywords: *Critical thinking, higher education, problem-solving, skill challenge, 21st-century skills.*

1. Introduction

In the 21st century, students at Zimbabwean higher institutions face a unique set of skill challenges (Chimbunde, 2023; Garwe & Thondhlana, 2023; Tawanda & Tsara, 2022). The skills required to succeed in the modern world are increasingly complex, and students must be able to navigate a rapidly changing technological landscape. While there is a growing focus on equipping students with 21st-century skills, such as digital literacy, critical thinking, and problem-solving, it is unclear how well students are prepared to meet these challenges. The purpose of this study was to explore the skill challenges faced by students at a Zimbabwean higher institution and to identify potential solutions to address these challenges.

2. Background

The concept of 21st-century skills has emerged in recent years as a way to describe the skills that are necessary for success in the modern world (Benvenuti et al., 2023; Kennedy & Sundberg, 2020). These skills include not only traditional academic skills, such as reading, writing, and mathematics, but also a range of other skills, such as critical thinking, creativity, communication, collaboration, and digital literacy (Amin et al., 2023; Purwanto et al., 2023; Voda et al., 2022). In Zimbabwe, as in many other countries, there has been a push to incorporate 21st-century skills into the curriculum, with a particular focus on the integration of technology into teaching and learning (Muyambo-Goto, et al. 2023, Tandi et al 2023).

3. Theoretical framework

This research is based on the theoretical framework of sociocultural learning theory, which emphasizes the importance of social and cultural contexts in the development of skills (Henderson, & Cunningham, 2023; Kilag et al., 2023). This framework posits that learning occurs through interactions with others and that cultural and social factors play a significant role in shaping an individual's ability to learn and use skills (Walker & Venker Weidenbenner, 2019; Whiteside et al., 2023). In the context of 21st-century skills, this framework suggests that the success of students will depend not only on the development of individual skills, but also on the ability of individuals to collaborate, communicate, and problem-solve in a social and cultural context.

4. Research questions

(i) What are the specific skill challenges faced by students at a Zimbabwean higher institution in the 21st century?

(ii) How do students perceive the impact of these challenges on their academic and career success?

(iii) What resources and support do students believe are needed to address these challenges?

(iv) How does the current curriculum and pedagogy at the university address the skill challenges faced by students?

(v) What role does the broader cultural and social context play in shaping students' ability to develop and use 21st-century skills?

5. Literature review

5.1. Specific skill challenges faced by students at a Zimbabwean university in the 21st century

In the 21st century, students in Zimbabwean universities face a variety of challenges related to their specific skills. These challenges include a lack of access to technology, a lack of qualified lecturers, and a lack of facilities and resources. Many students do not have access to computers or the internet, which makes it difficult for them to acquire the necessary digital literacy skills. Additionally, there is a shortage of qualified lecturers who can effectively teach these skills. Finally, the university lacks the facilities and resources that are needed to effectively teach digital literacy, such as computer labs and updated software. Goto (2021) and Bomani et al. (2019) found that Zimbabwean higher institution students lack specific skills related to critical thinking, problem-solving, information literacy, and collaboration. A study by Muyambo-Goto et al. (2023) and Katuli-Munyoro & Mutula (2019) found that Zimbabwean university students face challenges in the areas of information literacy, digital literacy, and communication skills. problem-solving, and time management.

5.2. Students perceptions on the impact of challenges on their academic and career success

The study explores the perceptions of students on the challenges that impact their academic and career success. The study examined a variety of factors that may impact students' perceptions, including financial constraints, cultural barriers, and lack of support from family and friends. The study also considered the effects of these perceptions on students' academic performance, as well as their future career goals. The goal of the study was to gain a better understanding of the factors that influence student success and to identify potential solutions to address the challenges that students face. Dube (2019) and Mhlanga et al. (2022) found that Zimbabwean higher institution students perceive that skill challenges have a negative impact on their academic performance and their future career prospects. According to Varaidzai-Makondo & Makondo (2020) and Marongedza et al. (2023) found that Zimbabwean higher institution students believe that skill challenges have a negative impact on their career prospects, but they are less clear about the impact on their academic performance.

5.3. Resources and support needed to address challenges

The study focuses on identifying the specific needs of students and determining what type of resources and support would be most effective in addressing these needs. It also examines the barriers that may prevent students from accessing the resources and support they need and considers how these barriers can be overcome. Ultimately, the goal of the study is to identify effective and practical solutions to the challenges faced by students. Pondiwa et al. (2022) found that Zimbabwean higher institution students believe that the provision of adequate resources, such as internet access and training, is essential to addressing the skill challenges they face (Brenya, 2023; Kilag et al., 2023). A study by Anderson et al.

(2015) and Mellow et al. (2023) found that university students believe that support from faculty members and other students is crucial to addressing skill challenges. Another study by Assan et al. (2018) found that university students in Africa believe that government policies and support are also important in addressing skill challenges.

5.4. Addressing current curriculum and pedagogy skill challenges

The study examines how the current curriculum and pedagogical approaches may be falling short in terms of meeting student's needs and preparing them for the workplace. It also considers how these challenges can be addressed through changes to the curriculum, as well as through the development of new pedagogical approaches. The study explores how technology can be leveraged to enhance the curriculum and improve pedagogical practices. A study by Olumuyiwa et al. (2023) found that the curriculum at universities in Africa does not adequately address the skill challenges that students face. Altbach et al. (2009) and Kanyane (2023) found that higher institutions in Africa are struggling to keep up with the rapidly changing technology landscape and that this is impacting the ability of students to acquire 21st-century skills. According to Ferreira et al. (2017), the pedagogical approach used in higher institutions in Africa is not always conducive to the development of 21st-century skills.

5.5. Role of Cultural and social context to develop students' 21st-Century Skills

The study investigates how the cultural and social norms in a student's home, school, and community can influence their learning and development. It also considers how factors such as poverty, discrimination, and family dynamics can impact a student's ability to acquire the skills needed to succeed in the 21st century. The study explores how these factors can be addressed to create an environment that is conducive to learning and development. Bourn (2018) found that the cultural and social context plays a significant role in shaping students' ability to develop 21st-century skills. The study found that cultural and social factors, such as family background, gender, and socioeconomic status, can influence students' access to technology and their ability to use it effectively. According to Adegunju (2023), cultural beliefs and practices in Nigeria can influence students' attitudes toward technology and their willingness to use it for learning.

6. Methodology

The study employed a qualitative research method. A case study design of a Zimbabwean higher education institution was used for data collection. The population of the study was all the lecturers and students at the university under study in seven faculties. Seven lecturers were randomly selected from each faculty. Two students were also randomly selected from each faculty. Instruments used were face-to-face interviews were carried out with lecturers and students on one-to-one to get views on the 21st-century skill challenges faced in higher education. For ethical consideration, consent was sought from the university under study. Participants were also assured that their information would be kept private.

7. Findings

The findings from the lecturers suggest that while students are generally confident in their digital literacy and ability to use technology, there are areas where they need further support, such as critical thinking, problem-solving, critical thinking, and collaboration. Additionally, skill challenges faced by students in the 21st century at Zimbabwean institutions include a lack of access to technology and digital skills; training and support for using technology for learning; and alignment between curriculum and 21st-century skills. There is an impact of cultural and social factors on technology use. Most lecturers and students mentioned that these challenges can impact students' academic performance, career prospects, and overall quality of life. It is therefore important to address these challenges to ensure that students are able to fully benefit from 21st-century skills.

Lecturers and students suggested the resources and support needed to address challenges as provision of adequate resources, such as internet access, computers, back up of power outages like generators and solar systems put in place and training. Addressing current curriculum and pedagogy skill challenges the lecturers noted that student's skill challenges are not addressed and with the rapidly evolving technologies the university is failing to keep abreast with it. On the role of cultural and social context to develop students' 21st-century skills the lecturers and students shared the same sentiments that lack of computers, gender and their background influenced their access to the technology used in the teaching and learning.

8. Conclusion

Based on the findings and discussion, the following conclusions were drawn: There are several skill challenges facing students in the 21st century at a Zimbabwean institution like critical thinking, problem-solving, and collaboration. These challenges have a significant impact on students' academic performance, career prospects, and overall quality of life. It is important to address these challenges through the provision of adequate resources, training, and support, as well as the development of a curriculum that is aligned with 21st-century skills.

9. Recommendations

Recommendations for addressing skill challenges faced by students in the 21st century at a Zimbabwean institution include the provision of adequate resources, such as computers, internet access, and digital literacy training; back up mechanism to ease power outages, adoption of a learner-centered pedagogical approach that encourages the use of technology for learning; collaboration between universities and other stakeholders, such as government and industry, to ensure that 21st-century skills are developed and utilized effectively and development of policies that support the integration of technology in education and promote digital literacy.

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References

Adegunju, A. A. (2023). *Adoption and use if instructional technology in Nigerian Universities. Exploring Faculty Members' and Students' Perspectives* (Master's Thesis, University of Gothenburg).

Altbach, P. G., Reisberg, L., & Rumbley, L. E. (2009). *Trends in global higher education: Tracking an academic revolution; a Report Prepared for the UNESCO 2009 World Conference on Higher Education*. UNESCO.

Anderson, E. M., Blitz, L. V., & Saastamoinen, M. (2015). Exploring a School-University Model for Professional Development with Classroom Staff: Teaching Trauma-Informed Approaches. *School Community Journal*, *25*(2), 113-134.

Amin, A. M., Adiansyah, R., & Hujjatusnaini, N. (2023). The contribution of communication and digital literacy skills to critical thinking. *Jurnal Pendidikan Sains Indonesia [Indonesian Journal of Science Education]*, *11*(3), 697-712.

Goto, O. M. (2021). *21st Century Education in Zimbabwe* (Doctoral dissertation, University of Johannesburg, South Africa. Retrieved from https://ujcontent.uj.ac.za/esploro/outputs/9915508307691

Benvenuti, M., Cangelosi, A., Weinberger, A., Mazzoni, E., Benassi, M., Barbaresi, M., & Orsoni, M. (2023). Artificial intelligence and human behavioral development: A perspective on new skills and competences acquisition for the educational context. *Computers in Human Behavior*, *148*, 107903.

Bomani, M., Fields, Z., & Derera, E. (2019). The role of higher education institutions in the development of SMEs in Zimbabwe. *International Journal of Business and Management Studies*, *11*(2), 1-15.

Bourn, D. (2018). Skills: Importance, scope and relevance. In D. Bourn (Ed.), *Understanding Global Skills for 21st Century Professions* (pp. 37-60). Cham: Palgrave Macmillan. https://doi.org/10.1007/978-3-319-97655-6_3

Brenya, B. (2023). Higher education in emergency situation: blended learning prospects and challenges for educators in the developing countries. *Journal of Applied Research in Higher Education*, Vol. ahead-of-print(No. ahead-of-print). https://doi.org/10.1108/JARHE-01-2023-0044

Chimbunde, P. (2023). Deconstruction of higher education curriculum in Zimbabwe: breaking the past and imagining the future. *African Identities*. https://doi.org/10.1080/14725843.2023.2207762

Dube, S. P. (2019). *Examining relations between educational policy and higher education students' access to industry in Zimbabwe* (Doctoral dissertation, Stellenbosch University).

Ferreira, J. J., Ratten, V., & Dana, L. P. (2017). Knowledge spillover-based strategic entrepreneurship. *International Entrepreneurship and Management Journal, 13*, 161-167.

Garwe, E. C., & Thondhlana, J. (2023). Higher Education in Zimbabwe. In Y. Waghid (Ed.), *Chronicles on African Philosophy of Higher Education* (pp. 107-134). Brill.

Henderson, R. W., & Cunningham, L. (2023). Creating interactive sociocultural environments for self-regulated learning. In D. H. Schunk & B. J. Zimmerman (Eds.), *Self-regulation of learning and performance* (pp. 255-281). Routledge.

Kanyane, M. (2023). Digital work–transforming the higher education landscape in South Africa. In A. Shajek & E. A. Hartmann (Eds.), *New Digital Work: Digital Sovereignty at the Workplace* (pp. 149-160). Cham: Springer International Publishing.

Katuli-Munyoro, P., & Mutula, S. M. (2019). Redefining Library and Information Science education and training in Zimbabwe to close the workforce skills gaps. *Journal of Librarianship and Information Science*, *51*(4), 915-926.

Kennedy, T. J., & Sundberg, C. W. (2020). 21st century skills. In B. Akpan & T. J. Kennedy (Eds.), *Science education in theory and practice: An introductory guide to learning theory* (pp. 479-496). Springer Cham.

Kilag, O. K. T., Maghanoy, D. A. F., Calzada-Seraña, K. R. D. D., & Ponte, R. B. (2023). Integrating Lev Vygotsky's Sociocultural Theory into Online Instruction: A Case Study. *European Journal of Learning on History and Social Sciences*, *1*(1), 8-15.

Marongedza, L., Hlungwani, P. M., & Hove, P. (2023). Institutional constraints affecting secondary school student performance: A case study of rural communities in Zimbabwe. *Cogent Education*, *10*(1), 2163552.

Mellow, G. O., Woolis, D. D., Klages-Bombich, M., & Restler, S. (2023). *Taking College Teaching Seriously-Pedagogy Matters!: Fostering Student Success Through Faculty-Centered Practice Improvement*. Taylor & Francis.

Mhlanga, E., Tlou, F. N., Phuthi, G. S. N., Manokore, K., ... & Sibanda, L. (2022). Barriers to the Implementation of Agenda 2030 United Nations Global Goals in the Zimbabwean Higher Education Context. *International Journal of Latest Research in Humanities and Social Sciences (IJLRHSS), 5*(5), 79-88.

Muyambo-Goto, O., Naidoo, D., & Kennedy, K. J. (2023). Students' Conceptions of 21st Century Education in Zimbabwe. *Interchange*, *54*(1), 49-80.

Olumuyiwa, O. A., Kimweli, K. M., & Modise, M. A. (2023). Comparative Factors Influencing Entrepreneurial Skills Acquisition amongst Students in Rural Universities of Sub-Sahara Africa's Developing Nations. *Education Sciences*, *13*(3), 229.

Pondiwa, S., El Nabahany, U., & Phiri, M. (2022). Integration of ICT into education: Lessons learnt at the State University of Zanzibar and the Midlands State University in Zimbabwe. In I. Dey (Ed.), *Computer-Mediated Communication*. IntechOpen.

Purwanto, M. B., Hartono, R., & Wahyuni, S. (2023). Essential Skills Challenges for the 21st Century Graduates: Creating A Generation of High-Level Competence in The Industrial Revolution 4.0 Era. *Asian Journal of Applied Education (AJAE)*, *2*(3), 279-292.

Tandi, C., Mawere, M, & Mukwazhe, M. (2023). *Media and Technology in 21st Century Higher and Tertiary Education in Africa: Insights from Teachers' Colleges in Zimbabwe*. Cameroon: Langaa RPCIG.

Tawanda, Z., & Tsara, E. (2022). Talent Identification, Nurturing, and Mentorship: Challenges and Opportunities in the Global Economy. In M. Chiware, B. Nkala & I. Chirisa (Eds.), *Transformational Human Resources Management in Zimbabwe: Solutions for the Public Sector in the 21st Century* (pp. 39-59).

Varaidzai-Makondo, P., & Makondo, D. (2020). Causes of poor academic performance in mathematics at ordinary level: A case of Mavuzani High School, Zimbabwe. *International Journal of Humanities and Social Science Invention (IJHSSI)*, *9*(1), 10-18.

Voda, A. I., Cautisanu, C., Gradinaru, C., Tanasescu, C., & de Moraes, G. H. S. M. (2022). Exploring digital literacy skills in social sciences and humanities students. *Sustainability*, *14*(5), 2483. http://dx.doi.org/10.3390/su14052483

Walker, G., & Venker Weidenbenner, J. (2019). Social and Emotional Learning in the age of virtual play: technology, empathy, and learning. *Journal of Research in Innovative Teaching & Learning*, *12*(2), 116-132.

Whiteside, A. L., Dikkers, A. G., & Swan, K. (Eds.). (2023). *Social presence in online learning: Multiple perspectives on practice and research*. Virginia: Taylor & Francis.