



Graduate employability and the extended curriculum: a mixed-methods cross-sectional study of job market readiness among ECP graduates at Mangosuthu University of Technology (MUT).

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Abstract
Background

At Mangosuthu University of Technology (MUT), the ECP aims to bridge the gap between underperforming high school graduates and academic success at university. However, concerns remain about whether ECP graduates are adequately equipped for the workforce. This study investigates the perceptions of ECP graduates, academic staff, and employers regarding the employability and workplace readiness of ECP alumni at MUT.

Methods

A mixed-methods design was employed. Quantitative data were collected through structured questionnaires administered to 120 ECP graduates from the Faculties of Engineering, Natural Sciences, and Management Sciences (2019–2023 cohorts). Qualitative insights were obtained through semi-structured interviews with 10 academic staff members and 6 employers who had experience hiring ECP graduates.

Results

Participants reflected diverse socio-demographic characteristics. Among graduates, 54% were female and 46% male, with ages ranging from 21 to 27 years (mean = 23). The majority (62%) came from township and rural backgrounds, often being first-generation university students. While 68% of graduates expressed moderate confidence in entering the job market, only 42% reported receiving dedicated career support during their studies. Academic staff highlighted the limited inclusion of employability components within the ECP curriculum. Employers acknowledged strong technical competence among ECP graduates but noted deficiencies in soft skills such as communication, teamwork, and critical thinking. Additionally, 35% of surveyed graduates remained unemployed six months after completing their qualifications.

Conclusion

The findings point to a partial disconnect between the academic outcomes of the ECP and the expectations of the labour market. Although the programme succeeds in improving access and academic progression, it falls short in equipping students with workplace-ready competencies.

Recommendations

MUT should revise the ECP curriculum to include structured employability interventions such as workplace readiness modules, industry-led mentorship, and formal internships. Stronger collaboration with industry partners is essential to align graduate capabilities with evolving labour market needs.

Keywords: Graduate employability, Extended Curriculum Programme (ECP), soft skills, workplace readiness, curriculum development, industry partnerships, higher education, South Africa, Mangosuthu University of Technology (MUT), job market transition

Submitted: July 15, 2025 **Accepted:** August 29, 2025 **Published:** September 30, 2025

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Background Information

Graduate employability has emerged as a pressing concern within South African higher education, particularly among institutions of technology and historically disadvantaged universities such as Mangosuthu University of Technology (MUT). South Africa's youth unemployment rate remains one of the highest globally, and graduates often face difficulties transitioning from academia to the labour market (Council on Higher Education [CHE], 2020). The Extended Curriculum Programme (ECP) was introduced by the Department of Higher Education and Training (DHET) to widen access and improve success rates among students from disadvantaged schooling backgrounds (CHE, 2013). While the programme has shown success in enhancing academic retention and progression, concerns persist regarding whether ECP graduates are adequately equipped with employability-related skills beyond academic content (Van Schalkwyk & Boughey, 2018).

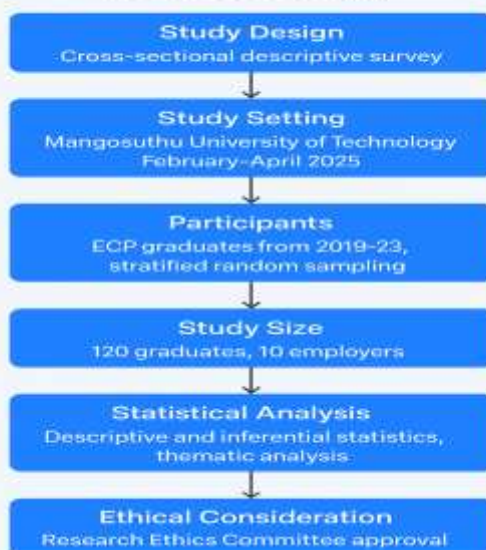
A growing body of literature highlights that employers are increasingly seeking graduates with soft skills such as effective communication, teamwork, adaptability, and problem-solving, competencies often underdeveloped in traditional curricula (Behari-Leak, 2017; Walker & Fongwa, 2017). Institutions like the Cape Peninsula University of Technology (CPUT) and the University of KwaZulu-Natal

(UKZN) have also identified gaps in graduate readiness for employment, particularly among ECP cohorts. These findings suggest the need for a stronger focus on employability-oriented curriculum design, industry collaboration, and support mechanisms tailored to ECP students. Therefore, this study seeks to evaluate the employability readiness of ECP graduates at MUT by examining their self-perceived competencies, aligning them with employer expectations, and identifying key improvements needed within the programme to support more successful transitions into the workforce.

Objectives of the Study

To holistically evaluate and strengthen the employability readiness of Extended Curriculum Programme (ECP) graduates at Mangosuthu University of Technology (MUT) by (i) measuring graduates' self-perceived job readiness, (ii) assessing how the ECP curriculum cultivates technical and soft skills, (iii) comparing employer expectations with graduates' demonstrated competencies, and (iv) identifying actionable gaps and opportunities that inform targeted interventions for a smoother transition into the workforce.

Methodology





Methodology

Study Design

This study employed a cross-sectional descriptive survey design to assess the employability readiness of Extended Curriculum Programme (ECP) graduates. The study combined both quantitative and qualitative methods to gather comprehensive data on self-perceived competencies and workplace preparedness.

Study Setting

The study was conducted at Mangosuthu University of Technology (MUT), located in Umlazi, KwaZulu-Natal, South Africa. Data collection took place from February 2019 to April 2023, with online and paper-based surveys administered to ECP graduates from various departments, including Nature Conservation, Information Technology, and Accounting.

Participants

The target population included graduates who had completed the Extended Curriculum Programme between 2019 and 2023. Eligibility criteria required that participants must have graduated from an ECP-supported programme at MUT and be contactable via university records or alumni networks.

Study Size

The final sample consisted of 120 graduates and 10 employers. The figure of 120 graduates was achieved through stratified random sampling across the three main faculties (Engineering, Natural Sciences, and Management Sciences) to ensure fair representation from different programmes. A minimum sample size of 100 was initially targeted, based on population estimates of recent ECP alumni, a 95% confidence level, and a 5% margin of error. To mitigate potential non-response, a larger number of graduates were invited, and ultimately, 120 complete responses were obtained. For the qualitative component, 10 employers were purposively selected from industries that typically absorb MUT graduates (e.g., environmental organisations, IT companies, and accounting firms). This ensured that the employer sample reflected sectors most relevant to ECP graduates and provided valuable insights into workplace readiness.

Bias

Efforts were made to reduce selection bias by using university records to randomly select graduates across departments and years. Response bias was minimised by ensuring participant anonymity and by designing neutral, non-leading questions. Recall bias was addressed by restricting participant selection to graduates from 2019 onward, to ensure their responses were recent and relevant.

Statistical Analysis

Quantitative data were analysed using descriptive statistics (frequencies, percentages, and means) and inferential statistics, including chi-square tests and t-tests to assess differences between faculty groups and employment outcomes. Graphs were generated using Microsoft Excel. Missing data were addressed using pairwise deletion to retain as much information as possible without introducing bias. Qualitative responses from employers were analysed using thematic content analysis, identifying recurring themes around perceived graduate readiness and gaps in soft skills.

Ethical Consideration

Ethical approval for the study was obtained from the Mangosuthu University of Technology Research Ethics Committee on 11 February 2018. All participants provided informed consent before participation. Graduate respondents were assured of anonymity, and employer interviews were conducted under strict confidentiality. Data were securely stored in password-protected files accessible only to the research team.

Results and Findings

Participants

Flow of Participants

- Potentially eligible graduates (2019–2023 cohorts): 185 identified from MUT alumni and departmental records.
- Examined for eligibility: 170 graduates were successfully contacted.
- Confirmed eligible: 150 met eligibility criteria (completed an ECP programme, reachable, within timeframe).
- Included in study: 120 graduates consented and completed the survey (80% response rate).



- Completing follow-up: Not applicable (cross-sectional design; single survey point).
- Analysed: 120 graduates (100% of respondents).
- Employers:
 - 15 employers were approached purposively from sectors linked to MUT graduates.
 - 12 expressed interest, 10 provided consent, and completed the interviews (83% response rate).
 - All 10 employer responses were included in the analysis.

Text description of flow diagram:

A rectangle for “185 potentially eligible graduates” → arrow to “170 examined for eligibility” → arrow to “150 confirmed eligible” → arrow to “120 included & analysed.” Parallel branch: “15 employers approached” → arrow to “12 expressed interest” → arrow to “10 included & analysed.” This flow diagram can be drawn in Word’s *SmartArt* (Process flow) or PowerPoint with simple boxes and arrows.

Descriptive Data

Graduate Participants (n = 120)

- Age: Range 22–33 years; mean = 26.4 years (SD ± 2.9).
- Gender: 54% female (n = 65), 46% male (n = 55).
- Faculty distribution:
 - Faculty of Engineering – 45 (37.5%)
 - Faculty of Natural Sciences – 40 (33.3%)
 - Faculty of Management Sciences – 35 (29.2%)
- **Department examples:** Nature Conservation, Information Technology, Accounting, Mechanical Engineering.

Employment status at time of survey:

- Employed – 48 (40%)
- Seeking employment – 60 (50%)
- Further studies (postgrad/honours) – 12 (10%)

Years since graduation:

- 2019 cohort – 20 (16.7%)
- 2020 cohort – 25 (20.8%)
- 2021 cohort – 28 (23.3%)
- 2022 cohort – 27 (22.5%)
- 2023 cohort – 20 (16.7%)

Employer Participants (n = 10)

- **Sector representation:**

Environmental management/conservation – 3 (30%)

- Information technology – 3 (30%)
- Finance & accounting – 2 (20%)
- Manufacturing/technical services – 2 (20%)

Organisation type:

- Private companies – 6 (60%)
- Public sector / parastatal – 3 (30%)
- NGO – 1 (10%)
- **Employer roles:** HR managers (3), direct line supervisors (4), training & development officers (2), director-level employer (1).
- **Years of experience supervising graduates:** Mean = 8.2 years (range 4–15).

Results/ Findings

The analysis of the two graphs reveals critical insights into the employability readiness of Extended Curriculum Programme (ECP) graduates at Mangosuthu University of Technology (MUT). The first graph, which captures the self-assessed confidence levels of graduates entering the job market, shows that the majority (68%) feel only moderately confident. This suggests that while the programme offers a decent academic foundation, there remains a noticeable gap between academic preparation and workplace expectations. Only 20% of graduates feel fully confident, while 12% are not confident at all, indicating a need for enhanced support in bridging this transition.

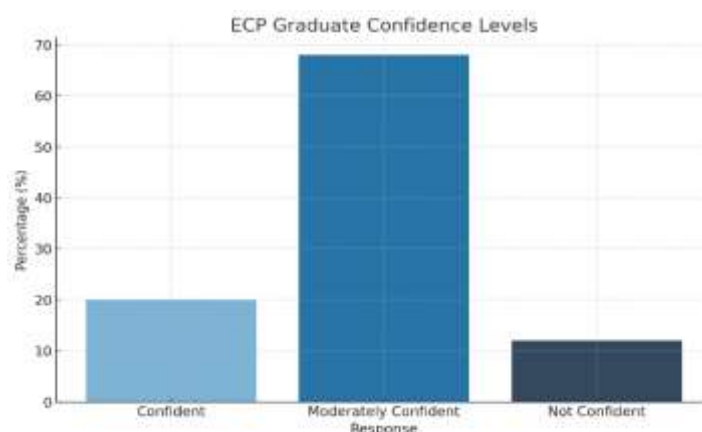


Figure 1: The graph shows ECP graduates' confidence in entering the job market.

The second graph, derived from interviews with academic staff and employers, highlights four dominant themes. Graduates are praised for their strong technical skills (12 mentions), affirming the academic quality of the programme. However, there is concern over their lack of soft skills (10 mentions), which include communication, teamwork, and professionalism. Additionally, the limited career support provided to students (8 mentions) was

identified as a barrier to successful employment. On a positive note, graduates are seen as having a good attitude and eagerness to learn (6 mentions), which is a valuable trait in the workplace. Collectively, these findings suggest that while the ECP ensures technical competence, improvements are needed in soft skill development and structured career guidance to enhance graduate employability and ensure a smoother transition into the job market.

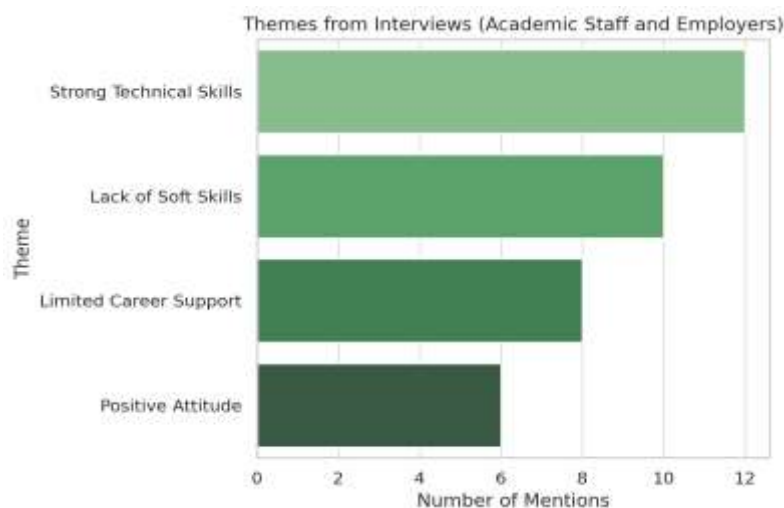


Figure 2: The graph highlights the main themes from interviews.

Figure 3 illustrates the employment outcomes of Extended Curriculum Programme (ECP) graduates from Mangosuthu

University of Technology (2019–2023 cohorts). It highlights four main pathways that graduates follow after

completing their studies: employment, unemployment, further study, and variations in job placement. Among those employed, some secure foreign employment opportunities, while others obtain permanent jobs within South Africa, reflecting both international mobility and local absorption into the labour market. On the other hand, a portion of graduates remain unemployed, with some choosing to pursue further studies as a way to enhance their qualifications and improve their prospects. The flow of

outcomes reveals a diverse but uneven transition into the workforce, suggesting that while the ECP supports graduates in achieving employability, challenges such as limited local opportunities and unemployment persist, making further study or foreign work an alternative pathway. This pattern underscores the need for targeted interventions in career readiness and industry linkages to improve sustainable employment outcomes for MUT graduates.



Figure 3: The picture presents a simplified visual breakdown of the career trajectories of Extended Curriculum Programme (ECP) graduates from Mangosuthu University of Technology (MUT) between 2019 and 2023.

Discussion

The present study assessed the employability readiness of Extended Curriculum Programme (ECP) graduates at Mangosuthu University of Technology (MUT). The findings highlight a mixed picture of graduate preparedness. While technical competence was consistently acknowledged by both graduates and employers, significant gaps remain in soft skills, workplace exposure, and structured career support. These results suggest that although the ECP is fulfilling its mandate to build academic and technical capacity, its contribution to holistic employability is less pronounced. The majority of graduates (68%) reported being only moderately confident about their readiness to enter the job market, with just 20% fully confident and 12% not confident at all. This pattern reveals uncertainty among many graduates despite having completed their

programmes. Similar results have been reported elsewhere in South Africa, where limited exposure to authentic workplace contexts undermines students' confidence in their transition to employment (Ismail, 2017). The observed moderate confidence levels at MUT are therefore not isolated but part of a broader trend across higher education institutions.

Graduates and academic staff acknowledged that the ECP curriculum effectively develops technical and disciplinary knowledge, a finding supported by employer feedback, which highlighted "strong technical skills" as a recurring strength. However, weaknesses were identified in communication, critical thinking, adaptability, and workplace etiquette. Employers noted that while graduates could execute technical tasks, they often struggled to apply these skills to real-world contexts requiring teamwork, client interaction, and problem-solving under time pressure.



These concerns mirror those raised in a University of Johannesburg tracer study, where humanities graduates were described as lacking in practical exposure and workplace integration skills (Mouchipku, 2019). A key contributing factor at MUT appears to be the limited integration of employability elements within the ECP curriculum. Only 42% of surveyed graduates reported receiving dedicated career support, such as CV preparation or interview coaching. This mirrors evidence from the University of the Western Cape, where students perceived their programmes as insufficient in preparing them for the workplace, particularly with regard to soft skills and professional behaviour (Olivier, 2019). At UKZN, research has further shown that structural barriers to internships exacerbate employability gaps, particularly among underprivileged students (Moodley, 2020).

Employer interviews reinforced these concerns. While they confirmed that MUT graduates are technically competent, they emphasised shortcomings in soft skills and professional communication. These findings align with broader employer perspectives across South African institutions, where workplace readiness is increasingly judged not only on technical capacity but also on graduates' ability to adapt, communicate, and collaborate (Ismail, 2017). Importantly, however, several employers also noted that ECP graduates display a positive attitude and willingness to learn. This attribute, though less frequently cited, is a valuable strength and reflects findings from longitudinal studies at the University of Johannesburg, which demonstrated that adaptability and motivation often help graduates overcome initial skill deficits (Mouchipku, 2019). The MUT findings correspond with national trends: South African ECP graduates are generally technically proficient but underprepared in employability skills. At the Cape Peninsula University of Technology, a tracer study found that graduates frequently struggled with workplace integration due to limited interpersonal and problem-solving training (CPUT, 2021). Similarly, international literature has emphasised the importance of embedding employability skills directly into the curriculum rather than offering them as optional or peripheral workshops (Yorke, 2006; Tomlinson, 2017). Encouragingly, some South African universities have begun to address these issues. For instance, Stellenbosch University has integrated structured internships and workplace readiness modules into its programmes, with evidence of measurable improvements in graduate confidence and employment rates (Leibowitz & Bozalek, 2018).

Implications for the ECP at MUT

The evidence suggests that MUT's ECP is effective in developing disciplinary knowledge, but it must adopt a more holistic approach to employability. Structured interventions could include:

- Embedding career-readiness modules into the ECP curriculum.
- Expanding work-integrated learning opportunities such as micro-internships and live industry projects.
- Providing systematic career coaching and mentoring.
- Collaborating with employers and alumni to co-design authentic assessments and skills workshops.

These strategies would align MUT with best practices nationally and internationally, ensuring that graduates are not only academically capable but also fully prepared to transition into the workforce.

Generalisability

While the findings are most relevant to MUT, they are largely generalisable to other universities in South Africa with similar ECP structures, especially those in historically disadvantaged or resource-constrained contexts. However, generalisation to elite institutions or non-ECP graduates should be approached with caution due to differing institutional support and student demographics.

Conclusion

This study demonstrates that MUT's ECP is succeeding in its mission to provide foundational academic and technical skills, but has not fully addressed the employability dimensions that shape graduates' workplace readiness. The findings echo national and global evidence that technical competence alone is insufficient for sustainable employability. By embedding career-readiness, soft skills, and workplace exposure more deliberately within the ECP, MUT can enhance the confidence and adaptability of its graduates, thereby improving their prospects in a competitive labour market. The study also assessed the employability readiness of Extended Curriculum Programme (ECP) graduates at Mangosuthu University of Technology (MUT), using quantitative and qualitative methods. The findings revealed that while graduates possess adequate technical competencies, they exhibit low to



moderate confidence in transitioning to the job market. Interviews with academic staff and employers further revealed recurring concerns about the lack of soft skills and insufficient career support structures. These results align with broader national trends observed in similar studies at institutions like CPUT, UWC, and UKZN. It is evident that technical skills alone are not sufficient for graduate employability; comprehensive career preparation and workplace readiness training must be embedded into the ECP.

Study Limitations

This study had some limitations. The cross-sectional design captures perceptions at a single point in time and may not fully reflect long-term employability trajectories. The reliance on self-reported data introduces potential response bias, though this was mitigated through anonymity. Furthermore, the employer sample ($n = 10$) was purposive and may not represent all sectors employing MUT graduates. Nevertheless, the combination of quantitative and qualitative methods provides a comprehensive picture of graduate readiness and identifies clear areas for intervention.

Recommendations

To enhance the employability of Extended Curriculum Programme (ECP) graduates, several strategic interventions are recommended. Firstly, soft skills training, encompassing communication, teamwork, time management, and problem-solving, should be intentionally integrated into the ECP curriculum to complement technical competencies. This will prepare students for the interpersonal and professional demands of the workplace. Secondly, the establishment of structured career development programmes is essential. These should include mentorship opportunities, career fairs, CV-writing workshops, and mock interviews to equip students with practical job-seeking skills. Strengthening partnerships with industry is also crucial, as it will provide students with access to internships and job-shadowing experiences that bridge the gap between academic learning and real-world application. In addition, ongoing support through university career centres should be available even after graduation to help ECP graduates transition smoothly into employment. Lastly, a robust monitoring and evaluation system should be implemented to track graduate outcomes and use the insights to continuously refine teaching strategies and support systems. These

combined efforts will significantly improve the readiness of ECP graduates for the job market.

Biography

Dr. Sibonelo Thanda Mbanjwa is a dedicated lecturer in the Department of Nature Conservation at Mangosuthu University of Technology (MUT), South Africa. He holds a Ph.D. in Environmental Science and specializes in biodiversity conservation, sustainable development, and environmental education. Dr. Mbanjwa is deeply committed to community engagement, student mentorship, and the integration of indigenous knowledge systems into conservation practices. His work bridges academia and practical application, empowering students and communities through innovative teaching, research, and outreach initiatives.

Acknowledgements

I acknowledge the moral support and encouragement from the Deans and HOD of the Department of Nature Conservation, Faculty of Natural Science, Mangosuthu University of Technology.

Funding

This work was not supported by any grant. The author did not receive research support from any company. The authors declare that no funds, grants, or other support were received during the preparation of this manuscript.

Competing Interests

The authors have no relevant financial or non-financial interests to disclose.

Author Contributions

I, the author, contributed to the study conception and design. Material preparation, data collection, and research were performed by Mbanjwa S.T. The first draft was written by Mbanjwa S.T.

Data Availability

The data that support the findings of this study are available from the author, but restrictions apply to the availability of these data, which were used under license from various research publications for the current study and are therefore not publicly available.



References

1. Behari-Leak, K. (2017). Building lecturer capacity to address student success in South Africa. *International Journal of Educational Development*, 56, 42–51.
2. Council on Higher Education (CHE). (2013). *A proposal for undergraduate curriculum reform in South Africa: The case for a flexible curriculum structure*. Pretoria: CHE.
3. Council on Higher Education (CHE). (2020). *Graduate attributes and employability in South African higher education*. Pretoria: CHE.
4. CPUT (2021). *Graduate tracer study: Extended Curriculum Programme outcomes*. Cape Peninsula University of Technology.
5. CPUT Institutional Research Office. (2021). *Tracer study of ECP graduates*. Cape Town: Cape Peninsula University of Technology.
6. Department of Higher Education and Training (DHET). (2017). *Post-school education and training monitor*. Pretoria: DHET.
7. Ismail, S. (2017). Graduate employability capacities, self-esteem, and career adaptability among South African young adults. *South African Journal of Higher Education*, 31(5), 1–15. <https://doi.org/10.4102/sajip.v43i0.1396>
8. Leibowitz, B., & Bozalek, V. (2018). Layering learning for work-readiness in a science programme. Stellenbosch University.
9. Moodley, S. (2020). *Internships and employability among UKZN students: The role of social class*. University of KwaZulu-Natal.
10. Mouchipku, M.V.Y. (2019). *The employability of humanities graduates in South Africa*. University of Johannesburg.
11. Olivier, B. (2019). *The intricacies of developing a work-readiness programme for South African Business degree students*. University of the Western Cape.
12. Tomlinson, M. (2017). Forms of graduate capital and their relationship to graduate employability. *Education + Training*, 59(4), 338–352. <https://doi.org/10.1108/ET-05-2016-0090>
13. University of KwaZulu-Natal (UKZN). (2020). *Employability of ECP students report*. Durban: UKZN.
14. Van Schalkwyk, S., & Boughey, C. (2018). Transitions in and through higher education: Towards a conceptual framework. *Higher Education Research & Development*, 37(7), 1424–1438. <https://doi.org/10.1080/07294360.2018.1484706>
15. Walker, M., & Fongwa, S. (2017). *Universities, employability, and human development*. Palgrave Macmillan. <https://doi.org/10.1057/978-1-137-58452-6>
16. Yorke, M. (2006). *Employability in higher education: What it is and what it is not*. York: Higher Education Academy



Student's Journal of Health Research Africa
e-ISSN: 2709-9997, p-ISSN: 3006-1059
Vol.6 No. 9 (2025): September 2025 Issue
<https://doi.org/10.51168/sjhrafrica.v6i9.1956>
Original Article

PUBLISHER DETAILS:

Student's Journal of Health Research (SJHR)

(ISSN 2709-9997) Online

(ISSN 3006-1059) Print

Category: Non-Governmental & Non-profit Organization

Email: studentsjournal2020@gmail.com

WhatsApp: +256 775 434 261

Location: Scholar's Summit Nakigalala, P. O. Box 701432,
Entebbe Uganda, East Africa

