University of Bamberg



Integrity in Research Practice: Perception of undergraduate students in Rwandan universities

8th World Conference on Research Integrity (2-5 June 2024)

Edouard Ntakirutimana
PhD researcher at University of Bamberg, Germany
Lecturer at PIASS, Rwanda





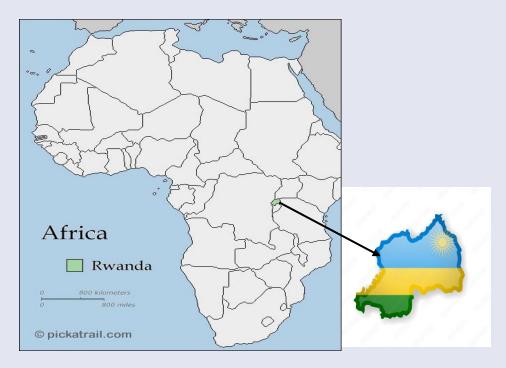


Overview

- Context and problem
- Research questions
- Methodology
- Findings
- Discussion
- Implications



Context and problem



Source: blob:https://www.pinterest.com

Location of Rwanda on the African Map

Size: 26,336Km²

Pop: 14.4 millions

Context and Problem

- Research as a generator of new knowledge is useful to the society (Hessels & van Lente, 2008)
- Research integrity: a set of moral and standards for research activities (Zhaksylyk, Zimba, Yessirkepov, & Kocyigit, 2023)
- Education fosters integrity in research practice (Labib, et al., 2022)
- Gap in Research integrity in early research training (Krásničan, Gaižauskaitė, Bülow, Dlabolova, & Bjelobaba, 2024, p. 157)
- Graduates with insufficient research skills to engineer appropriate responses to the current challenges (Benneworth & Fitjar, 2019, p. 336; Mutamba & Nsavyimana, 2019).
- Research ethics as an issue in the students projects (Kjellström, Ross, & B., 2010)



Research question

Perceptions of undergraduate students about their preparation for research and related experiences

What is the perception of undergraduate students about the respect of research ethical values in their research projects?

Methodology and methods

- Exploratory within Qualitative research approach (Savin-Baden & Major, 2013)
- Target group: undergraduate students in HLIs in Rwanda
- Data collection: semi- structured interviews
- Sampling strategy: Theoretical sampling (Coyne, 1997).

(21 interviewees reached saturation)

- Analysis: Qualitative content analysis (Green, et al., 2007; Krippendorff, 1989)
 - Transcription and translation of Interviews from Kinyarwanda to English
 - Coding: Deduction-induction iterative process (using MAXQDA)
 - Generalization by Abduction process
- Ethical consideration
 - Integrity, freedom of participate, anonymization (Cheron, Salvagni, & Colomby, 2022; Pietilä, Anna-Maija, Halkoaho, & Kyngäs, 2020)



Results



Criteria

Evidence	
based	
Writing trust	
Objective	



Types	Confidential researcher	Dishonest researcher
Criteria		
Evidence		
based		
Writing trust		
Objective		

Types Criteria	Confidential researcher	
Evidence based	Collected data, Analyzed data	
Writing trust	Honesty, valuing others right, no plagiarism	
Objective	Knowledge discovery oriented	



Example of citation from confidential researcher ideal type:

"....how the research was done I often used the results from other research. You know, I didn't include only my research ideas, you have to make references based on what you read, maybe you try to put in your words some of what you read, avoid plagiarism or copy other's work and paste" (Mango: 199-202)

Honesty in writing without plagiarism



Types	Dishonest researcher
Criteria	
Evidence	Cooked data, stolen data,
based	copy pasted information, work given
Writing trust	Fabrication of data, Falsification of data, plagiarism, hiring a writer on behalf
Objective	Certification compliance oriented



Example of citation from dishonest researcher ideal type:

"It is the way a person mostly who is unable to write the dissertation oneself (huu), or a person with laziness (huu) of not willing to work, finds another person who seems to know how to write dissertations, he/she negotiate a certain amount of money to pay (huu) and then write for him/her" (Kokum: 208-212)

> Work is given by the hired person to write



Types Criteria	Confidential researcher	Dishonest researcher
Evidence based	Collected data, Analyzed data	Cooked data, stolen data, copy pasted information
Writing trust	Honesty, valuing others right, no plagiarism	Fabrication of data, Falsification of data, plagiarism, hiring a writer on behalf
Objective	Knowledge discovery oriented	Certification compliance oriented

Discussion

- Research integrity is a fundamental principal in the conduct of science (Diaba-Nuhoho & Amponsah-Ofeh, 2021).
- Research Integrity shapes the trustworthy of the science –
 genuine innovation and discovery for the community (Dove, 2024, p. 137; Magalhães, 2024; Krásničan, Gaižauskaitė, Bülow, Dlabolova, & Bjelobaba, 2024, p. 157).
- Research misconduct with questionable practices including Plagiarism and Falsification destroy the development of Science (Bolland, Avenell, & Grey, 2024)
- Research integrity training and practice for junior researchers is still problematic (Katsarov, Andorno, Krom, & van den Hoven, 2022; Singh & Mendy, 2019; Grinnell, 2013)

Implications

For further research

Quantitative research is needed to get distribution of the types that immerged with respect of research integrity

For practice

- ➤ To lecturers of HLIs: rethink how research integrity is integrated into students' education
- To HEC: Strengthen research integrity policies at universities (especially in Rwanda)

References

- Åkerfeldt, A., & Boistrup, L. B. (2022). Design and research: Ethical considerations . In L. B. Boistrup, & S. Selander, *Designs for Research, Teaching and Learning: A Framework for Future Education* (pp. 48-60). New York, NY: Routledge.
- Bolland, M. J., Avenell, A., & Grey, A. (2024). Publication integrity: what is it, why does it matter, how it is safeguarded and how could we do better? *Journal of the Royal Society of New Zealand*, 1-20. doi:10.1080/03036758.2024.2325004
- Clarke, O., Chan, W. Y., Bukuru, S., Logan, J., & Wong, R. (2022). Assessing knowledge of and attitudes towards plagiarism and ability to recognize plagiaristic writing among university students in Rwanda. *Higher Education*, 85, 247–263.
- Diaba-Nuhoho, P., & Amponsah-Ofeh, M. (2021). Reproducibility and research integrity: the role of scientists and institutions. *BMC Research Notes*, 14, 451.
- Dove, E. (2024). Editorial: Researching research integrity and saying goodbye. *Research Ethics*, 20(2), 137–142.
- Hessels, L. K., & van Lente, H. (2008). Re-thinking new knowledge production: A literature review and a research agenda. *Research Policy*, *37*, 740 760.
- Kjellström, S., Ross, F., & B. (2010). Research ethics in dissertations: ethical issues and complexity of reasoning. *Journal of Medical Ethics*, *36*, 425-430.
- Krásničan, V., Gaižauskaitė, I., Bülow, W., Dlabolova, D. H., & Bjelobaba, S. (2024). Transition from Academic Integrity to Research Integrity: The Use of Checklists in the Supervision of Master and Doctoral Students. *Journal of Academic Ethics*, 22, 149–161.
- Labib, K., Evans, N., Roje, R., Kavouras, P., Elizondo, A. R., Kaltenbrunner, W., . . . Tijdink, J. (2022). Education and training policies for research integrity: Insights from a focus group study. *Science and Public Policy, 49*, 246–266.
- Magalhães, S. (2024). Ethics and Integrity in Research: Why Bridging the Gap Between Ethics and Integrity Matters. Journal of Academic Ethics, 22, 137–147.
- Sibomana, E., Ndayambaje, I., & Uwambayinema, E. (2018). Plagiarism in higher education environment: causes and solutions. *Rwandan Journal of Education*, 4(2), 15-23.
- Saltelli, A. (2023). Teaching scientific research integrity: A case study. *Innovations in Education and Teaching International*, 1-14. doi:10.1080/14703297.2023.2237949

Thank you very much!!!! Ευχαριστώ πολύ!!!!