

## POLICY ON RESEARCH ETHICS

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## 1. INTRODUCTION

- 1.1 This policy is based on the University of South Africa (UNISA) vision: Towards *the* African university shaping futures in the service of humanity.
- 1.2 Underpinning UNISA's vision are the values of ethics and collective responsibility, integrity, innovation and excellence, responsive student-centeredness, and dignity in diversity.
- 1.3 UNISA is committed to an Afro-global research ethics perspective by
  - harmonising African beliefs, customs, values and social life systems as an integral aspect of research without disregarding globally accepted research ethics frameworks;
  - undertaking and promoting research that aims to benefit the people of the African continent and those beyond its borders;
  - promoting an institutional ethos that is conducive to systematic knowledge development, critical discourse, intellectual curiosity, tolerance and a diversity of views within a framework of academic freedom;
  - maintaining and sustaining an environment for researchers that cultivates moral capital development through education, ongoing professional development and clear policies, standards and procedures while preserving researcher autonomy; and
  - embedding in researchers the importance of maintaining social and moral responsibility towards research participants, communities/collectives, animals, environments and third parties (if applicable).
- 1.4 UNISA endorses the Singapore Statement on Research Integrity by promoting high standards of scientific work and striving for excellence in research that is open to public scrutiny<sup>1</sup>.
- 1.5 UNISA espouses the constitutional values of human dignity, equality, social justice and fairness and the ethical standards found in the UNISA Ethical Policy Framework and the UNISA Code of Ethics and Conduct.
- 1.6 UNISA promotes harmonising the internationally recognised Belmont Report moral principles of autonomy, beneficence, non-maleficence and justice, within research practice.
- 1.7 UNISA endorses the Global Code of Conduct for Research in Resource-Poor Settings, which promotes principles of fairness, cultural sensitivity, care and honesty regarding collaborative research.
- 1.8 UNISA endorses the Statement on Ethical Research and Scholarly Publishing Practices<sup>2</sup>.
- 1.9 UNISA subscribes to the San Code of Research Ethics, recognising primal heritage rights through respect, honesty, justice and fairness, care and process.
- 1.10 UNISA abides by the South African National Standards Document (SANAS) concerning animal research.

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<sup>1</sup> Singapore Statement on Research Integrity (2010), available at <http://www.sigaporestatement.org/>

<sup>2</sup> Statement on Ethical Research and Scholarly Publishing Practices (2019), jointly issued by ASSAf, CHE, DHET, NRF and USAf. Available at [https://www.unisa.ac.za/static/corporate\\_web/Content/Colleges/CAES/Research/docs/Joint\\_Statement\\_on\\_Ethical\\_Publishing.pdf](https://www.unisa.ac.za/static/corporate_web/Content/Colleges/CAES/Research/docs/Joint_Statement_on_Ethical_Publishing.pdf)

- 1.11 This policy should be read in conjunction with other relevant UNISA policies.
- 1.12 This policy shall regulate research ethics at UNISA, provided that if there is any conflict between this policy and any other relevant policy, the meaning contained in this policy will take preference unless the context expressly indicates otherwise.

## 2. DEFINITIONS AND ABBREVIATIONS

In this document, the following terms are defined as follows, unless the context clearly indicates otherwise:

Academic dishonesty	is the conduct or omission in any academic endeavour that violates the values associated with academic integrity and includes any act that is designed to give an unfair or undeserved academic advantage. It includes cheating, plagiarism, falsification, fabrication and violation of research ethics.
Academic freedom	is the recognition of academics' right to freedom of investigation, thought, expression, publication and dissemination of results, free of institutional intolerance and internal or external coercion.
Academic integrity	is research and tuition associated with honesty, truth, equity, respect, responsibility and accountability.
Academic outputs	refer to all works created by employees and students for tuition and/or research purposes.
Action learning	is a problem-solving and solution-oriented educational approach that aims to solve real problems by acting and reflecting on the results. Action learning aims to contribute to knowledge development through acceptable means of scientific investigation and dissemination.
Afro-global perspective	means harmonising African beliefs, customs, values and social life systems as an integral part of research without disregarding globally accepted research ethics frameworks.
Collaborative research	is a study where research activities are conducted across various institutional, disciplinary, national, and sector boundaries to advance knowledge and address complex problems collectively.
Conceptual research	is a methodology that involves analysing existing material in the public domain on a given topic. Conceptual research does not involve conducting any experiments, interviews or surveys. It relates to the use of literature, theories, concepts or ideas.
Copyright	is the intellectual property right that an author acquires in accordance with the Copyright Act 98 of 1978 regarding a protected work.
Curation	is selecting, preserving, maintaining, collecting and

	archiving research data and artefacts.
Department	is an operational unit established by UNISA.
Ethics review	is an objective appraisal of the effect of the proposed research on the well-being of potential participants, animals, the environment, institutions, collectivities and communities by an established ethics review committee.
Gatekeepers	are persons who, by right of their position of authority, are recognised as a channel of access to a research site, participants, funders or sponsors.
Health research	includes any research that contributes to knowledge of <ul style="list-style-type: none"> <li>• biological, clinical, psychological or social processes in humans;</li> <li>• improved methods for the provision of health services;</li> <li>• human pathology;</li> <li>• the causes of disease;</li> <li>• effects of the environment on the human body;</li> <li>• development of new applications of pharmaceuticals, medicines and related substances; and</li> <li>• the development of new applications of health technologies to improve health and health care.<sup>3</sup></li> </ul>
Human participant	is a living person about whom a researcher obtains data through intervention or interaction with the person or by using the person's identifiable information. However, this definition may be extended for this policy to protect the rights of deceased persons. <sup>4</sup>
Indigenous knowledge	is local knowledge that originated in a culture or society.
Integrity	is fundamental to all forms of scientific research and is anchored in the values of truth and honesty. The responsible conduct of researchers exemplifies trust by peers and the public in the truth of research, trust in their competence and trust in their devotion to do research according to internationally accepted ethical norms and values.
Intellectual property	is a patentable invention or any copyrightable subject matter, such as a trademark, a design, a traditional work (as defined in the Intellectual Property Amendment Act of 2010) and a trade secret or knowledge of how to do something.
Interdisciplinary	means drawing from, relating to, or involving two or more fields of study, which is usually considered distinct, resulting in an integration of concepts in a coherent synthesis that crosses disciplinary boundaries.
Moral capital	means required or expected knowledge, skills, attitudes and

<sup>3</sup> Definition according to the National Health Act 61 of 2003 (p.6/7)

<sup>4</sup> Definition according to the Department of Health, Government Gazette, No. 38000 (2014:5)



	consciousness in research ethics.
Non-therapeutic research	is research that benefits people other than the research participant. Knowledge acquisition may be of no immediate benefit to the participants, but they may unexpectedly become direct or indirect beneficiaries of such research.
Principal researcher	is responsible for a research study's ethical and scientific integrity, particularly a leader of a team of researchers or a master's or doctoral student.
Public domain	refers to the state of belonging or being available to the public, primarily through not being subject to copyright or other legal restrictions. Ethical principles must still be considered if data in the public domain are used for research purposes.
Research ethics	govern the standards of conduct for scientific researchers. It is essential to adhere to ethical principles to protect human and animal research participants' dignity, rights and welfare with due regard to the environment.
Secondary research	involves the collation and/or synthesis of existing material not collected for the current study, either in the public or private domain. Primary research generates data, while secondary research uses primary data sources as a source of data for analysis.
Therapeutic research	means research that benefits the individual research participants by treating or curing their condition.
Vulnerable participants	include children (i.e. those individuals under the age of 18 years), the elderly, pregnant women, people with cognitive or mental impairment, prisoners or people on parole; students, people living with HIV/AIDS; people in dependent relationships, differently-abled persons, socio-economically disadvantaged people, Indigenous people and indigents;

### 3. ABBREVIATIONS

ERC/REC	means the ethics review committee (synonymous with the research ethics committee) that is representing a specific UNISA business unit or college, either at unit, school or departmental level.
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### 4. AIM

The policy aims to ensure that

- 4.1. an ethical and scientific intellectual culture prevails among the university's employees and students and is followed in research practice;

- 4.2. the rights and interests of human participants, institutions, communities, animals and the environment are protected. This is particularly important where the information gathered can invade the privacy and dignity of participants and third parties, and where they are vulnerable owing to their youth, disability, gender, age, poverty, disease, ignorance or powerlessness;
- 4.3. all research activities are conducted with scholarly integrity, excellence, social responsibility and ethical behaviour; and
- 4.4. the ethical and scientific soundness of research is not compromised.

## **5. PURPOSE**

The Policy on Research Ethics is not intended to restrict or discourage research at UNISA. On the contrary, the primary purpose of this policy is to

- 5.1. inform researchers of their responsibilities in conducting ethical research;
- 5.2. promote adherence to applicable legislation and procedures; and
- 5.3. provide a framework for research to be conducted that is aligned with internationally recognised ethical principles, guidelines and norms.

## **6. SCOPE**

This policy applies to all UNISA and non-UNISA researchers who are conducting research on or off its campuses or are engaged in research at or in collaboration with the university. The definition of “research” is based on several essential principles:

- 6.1. Research is, at the most basic level, a human activity. This implies that research is never value-neutral or mechanistic. Researchers have preconceptions determined by social, political, cultural and gender influences. These preconceptions influence both their theories and findings and should be declared as part of the ethical dimension of the study.
- 6.2. Research is a communal activity. Researchers work as part of a national and international community of scholars. This community influences the paradigms within which research is undertaken in and across certain disciplines and/or subjects.
- 6.3. Acceptable research may be multi-, inter- and transdisciplinary, discipline-, field- and subject-specific.
- 6.4. Research is theory-dependent. Research is informed by the dominant theories within certain fields, which theories, in turn, are influenced by the paradigms referred to above.
- 6.5. The purpose of research is the study of natural, social and metaphysical phenomena to improve our understanding of how the world functions and to address its needs.
- 6.6. Research involves creative, innovative, systematic and original work that explains phenomena. In addition, research embraces the critical evaluation of such phenomena in both the natural and social sciences.
- 6.7. Research includes, but is not limited to, basic, applied, strategic and reflexive research.

## **7. PRINCIPLES**

- 7.1. UNISA should promote compliance with the Policy on Research Ethics and take appropriate steps when this policy is breached.
- 7.2. UNISA has the right to monitor research approved by any of its ethics review committees (ERCs) and to require the submission of regular reports or other information regarding the research. The university may impose disciplinary measures or stop research when ethical principles are violated, or the integrity of the university is jeopardised.
- 7.3. As a rule, all intellectual property resulting from research conducted under the auspices of UNISA vests in the university, according to UNISA's Intellectual Property Policy.
- 7.4. Ethics approval will not be granted retrospectively.
- 7.5. Human research involving interaction with or observation of human participants, information linked to human participants, or research involving groups of individuals, communities or collectives must have ethics approval from the relevant ERC before it may commence.
- 7.6. Animal, plant, molecular and cell research conducted by UNISA employees and students must have ethics approval from the relevant ERC before it may commence.
- 7.7. Health and animal research conducted by UNISA employees and students should receive ethics approval from a research ethics committee registered with the National Health Research Ethics Council to comply with section 73 of the National Health Act 61 of 2003.
- 7.8. Honours research projects involving human participants should receive ethics approval from an ERC, either in the form of class approval or as individual projects.
- 7.9. ERCs should expedite the following categories of research:
  - 7.9.1. research that relies exclusively on the review of materials/literature available in the public domain and/or information accessible through legislation or regulation or academic library databases
  - 7.9.2. research that relies exclusively on the secondary use of anonymous information or anonymous human biological material, except for the review of archived materials that are confidential, research of closed media sources and research involving the analysis of institutional statistics about employees, students, service providers and users
  - 7.9.3. negligible-risk honours research projects where the intention is to provide students with the required learning opportunities instead of using the data for scientific publication purposes
  - 7.9.4. pure conceptual research, such as philosophical and theoretical reflections, as well as the design and proposal of conceptual models or frameworks that do not depend on human participants for validation
- 7.10. Duly authorised routine data-gathering activities necessary for efficient administration and operations at UNISA, standard educational practices and programme evaluation activities do not constitute research and do not need formal ethics review. However, if the publication of such studies is desirable, it is prudent to obtain ethics approval before the study begins.
- 7.11. Formal ethics approval is not required for action learning assignments that do not aim to contribute to knowledge generation through accepted scientific study techniques and dissemination.

- 7.12. UNISA is accountable only for research that has been conducted in accordance with the UNISA Policy on Research Ethics.
- 7.13. A register is maintained of all research that has received ethics approval.

## **8. OBJECTIVES**

The objectives of research ethics governance and review are

- 8.1. to support the broad UNISA research and innovation agenda and policies based on the UNISA Strategy 2030 and the priorities set out in the National Plan for Higher Education and the White Paper for Post-School Education and Training;
- 8.2. to enhance the university's standing as a research and innovation institution of international repute;
- 8.3. to encourage ethical and responsible research that promotes the university's standing as a leading CODEL research institution;
- 8.4. to encourage ethical and responsible research that promotes teaching and learning, CODEL and engaged scholarship activities at the university; and
- 8.5. to promote good governance by fostering an environment that encourages integrity through research, education, clear policies and standard operating procedures.

## **9. RIGHTS AND RESPONSIBILITIES OF RESEARCHERS, FUNDERS, CLIENTS AND SPONSORS**

- 9.1. Researchers have the fundamental right to academic freedom and freedom of scientific research.

### **9.2. Integrity in research**

- 9.2.1. Researchers are responsible to ensure that they do not undertake research without ethical approval.
- 9.2.2. Researchers must be suitably qualified and technically competent to carry out the proposed research.
- 9.2.3. Researchers must engage in ongoing professional research ethics capacity development.
- 9.2.4. Researchers conducting health research should produce evidence of appropriate research ethics training within the previous three years (see NDoH, South African Ethics in Health Research Guidelines, 2024).
- 9.2.5. Researchers should be accountable by acting responsibly and strive to achieve the highest possible level of excellence, integrity and scientific quality in their research.
- 9.2.6. Researchers have a right, as well as an obligation, to refrain from undertaking or continuing any research that contravenes the Policy on Research Ethics, violates

the integrity and/or validity of research and/or compromises their autonomy in research. If they feel that the policy or ethical principles are being violated or that the study is unethical, they must make all possible efforts either to correct or terminate the research; these efforts would include reporting to the relevant ERC. In the event of failure of remedial measures, they must terminate the study or end their involvement in it.

- 9.2.7. Researchers should only undertake research that will contribute knowledge on the subject. They should use resources judiciously to avoid the unnecessary duplication of research.
- 9.2.8. Researchers have a right and a duty to make all necessary efforts to bring the research and its findings or results to the public domain using appropriate and acceptable forums and at an appropriate time. Research findings should be published in a manner that will not harm research participants or their communities.
- 9.2.9. Researchers are responsible for those involved in or affected by their work. They should make reasonable efforts to anticipate and guard against the possibility of their research's having undesirable or harmful consequences. They should take reasonable corrective steps when they encounter misuse or misrepresentation of their studies. They must be prepared to take responsibility and to be held accountable for all aspects and consequences of their research activities.
- 9.2.10. Researchers should be honest regarding their own actions in research and their responses to other researchers' actions. This applies to the whole range of research, including generating and analysing data, publishing results, and acknowledging the direct and indirect contributions of colleagues, collaborators and others.
- 9.2.11. Researchers may not use Artificial Intelligence tools irresponsibly, commit plagiarism, piracy, falsification or the fabrication of results at any research stage since it is regarded as a serious offence. The research findings should be reported accurately and truthfully, and historical records and study material should be preserved and protected. The UNISA Policy on Academic Integrity deals with research misconduct.
- 9.2.12. Researchers may be required to report regularly to the relevant ERC. Any researcher who experiences unexpected adverse events or changes in the research design should inform this committee.
- 9.2.13. Researchers should adhere to relevant requirements regarding data curatorship and data management. Whereas the former refers to the collection, validation and preservation of data for various purposes, the latter refers to a broad range of data applications, such as data design, reuse, storage and security.
- 9.2.14. If a researcher contravenes the Policy on Research Ethics, the relevant ERC will investigate it and the findings will be reported to URERC and the research sponsor.

### **9.3. Relationships among researchers**

- 9.3.1. Principal researchers and/or academic supervisors oversee the ethical conduct of research by junior researchers, members of a research team, assistants, students and trainees under their supervision.
- 9.3.2. Supervisors must be suitably qualified to provide the necessary guidance to students.
- 9.3.3. Supervisors guiding students conducting health research should produce evidence of appropriate research ethics training within the previous three years (see NDoH, South African Ethics in Health Research Guidelines, 2024).
- 9.3.4. Junior researchers, assistants, students and trainees are responsible for acting ethically and observing the Policy on Research Ethics.
- 9.3.5. Junior researchers, assistants, students and trainees have a right to receive appropriate training and guidance on all aspects of research, including ethical conduct, and principal researchers, academic supervisors and academic departments are responsible for providing this training and guidance.
- 9.3.6. The principal researchers should delegate to juniors, assistants, students, interns and trainees only those responsibilities that the latter are reasonably capable of performing, based on their education, training or experience, either independently or under supervision.
- 9.3.7. Researchers should not engage in discriminatory, harmful or exploitative practices, coercion or harassment in the research process. They should not impose their views or beliefs on or try to seek personal, sexual or economic gain from anybody, including other researchers, juniors, assistants, trainees or students.
- 9.3.8. Researchers should not deceive or coerce other researchers, including employees, juniors, assistants, trainees and students, into serving as research participants. Employees or students, either research participants or research assistants, have the right to end their involvement in the research without facing adverse consequences.
- 9.3.9. Students working on research as a tuition requirement should not be exploited by advisors or mentors and should be adequately acknowledged for their contribution.
- 9.3.10. In addition to researchers and students, any other individuals who may have access to data or identifying information, as well as private organisations that are contracted to handle research data, should be briefed on ethical issues and the Policy on Research Ethics, including the participants' right to privacy and confidentiality.

### **9.4. Data sharing**

- 9.4.1. Unisa recognises the importance of open access to science and research. Researchers should protect the interests of co-researchers and participants,

including their right to privacy and confidentiality, when sharing data or making it public in any form.

- 9.4.2. Data may be commonly shared when it does not identify participants in the form of anonymous abstracted facts or when the right to anonymity has been waived. If necessary, it may be shared – even before the study's publication – among researchers and peer reviewers, and it may be made available to the public.
- 9.4.3. Researchers either fully or partially funded by the National Research Foundation should deposit the data supporting publication(s) in an accredited open access repository with the provision of a digital object identifier (DOI) for future citation and referencing. The Unisa Library hosts the Open Access Repository, and all NRF-funded researchers should use this facility to deposit de-identified data for which prior informed consent was obtained.
- 9.4.4. Participants should have a choice of whether to consent to data sharing or not, as well as the type of data to be shared and who could access it.
- 9.4.5. Researchers should, during the conceptualisation of the research, already consider data sharing and build mechanisms in the research proposal, such as data management plans, to protect the participants' rights and accommodate data sharing. If the data are sensitive, the researcher should be able to choose a more limited form of data sharing.
- 9.4.6. As far as possible, and if required by the research design, researchers should ensure that relevant research findings are taken back to the research participants, institutions or communities in a way that they can understand and that will not cause harm.

## **9.5. Reporting and publication of research**

- 9.5.1. Reporting of research findings advances scientific knowledge. Researchers who conduct the study have the right and the duty to publish research findings in scientific journals, books and/or other media. When they agree to delegate this responsibility to (an)other individual(s) or organisation(s), they should do so only if they have received a mutually agreed commitment to publish or disseminate the results within an agreed period, with an agreed content and in an agreed manner, and with due recognition of the relevant researchers and UNISA as an institution.
- 9.5.2. Publishing research findings should be done so as not to harm research participants or their communities.
- 9.5.3. Where there is a conflict between the advancement of scientific knowledge and the protection of intellectual property (e.g. by way of patents), researchers should endeavour to explain the importance of publishing research to the inventor once the provisional application has been filed.
- 9.5.4. If a client/sponsor/funder requires non-publication of research results or requires prior approval for the manner and content of reporting, such a research proposal

may be rejected by the relevant ERC. If the request not to publish is based on strategic or other reasonable grounds, the committee may consider the non-publication of results for no more than one year following the completion of the research. Input from the relevant college/institute/centre should be sought where there is a request not to publish.

- 9.5.5. Research results should be reported irrespective of whether they support or contradict the expected outcome(s).
- 9.5.6. Researchers should disclose the source(s) of funding and sponsors in their publications unless there is a compelling reason not to do so.
- 9.5.7. In their publications, researchers should explain the methodology used and how any ethical dilemmas they encountered were resolved.
- 9.5.8. The following guidelines should be followed for giving authorship credit while reporting the research in any form:
  - a. Authorship and its sequence in case of more than one author should be based on the quantum of the contribution made in terms of ideas, conceptualisation, the actual performance in the research, and analysis and writing of the report or any publication based on the research. Authorship and its sequence should not be based on the status of the individual in the institution or elsewhere.
  - b. A contributor must assist in drafting or revising the work critically for important intellectual content.
  - c. A contributor must give final approval of the version to be published.
  - d. A contributor must agree to be accountable for all aspects of the work, including the accuracy and academic integrity of the work and the integrity of the co-authors' contributions.
  - e. All other individuals not satisfying the criteria for authorship, such as communities or community members in the case of community-engaged research, but whose contribution made the conducting and completing research or publication possible, should be appropriately acknowledged.
  - f. A student should be listed as the principal or first author on any multiple-authored publication derived substantially from the student's dissertation or thesis.
  - g. When data or information from other studies or publications is quoted or included, appropriate credit should be given.
- 9.5.9. When results are disseminated through the popular media, researchers should ensure that media people comprehend the limitations and implications of research results and that distortions and misrepresentations in media reporting are minimised.

## 9.6. Peer review

- 9.6.1. Sound methodology and scientific validity are the entry points of ethical research. Engaging in research with fundamental flaws in design and methodology wastes



human, monetary and other resources. Apart from ethical review, peer (scientific) review is essential to the research. The purpose of peer review is to improve research and facilitate the observance of ethics. Researchers should be encouraged to subject their work to such a process.

- 9.6.2. Researchers should be encouraged to make themselves available as peer reviewers for research in the fields where they have adequate knowledge and expertise.
- 9.6.3. Peer reviewers should be aware of the ethical aspects of research and publication. They must act objectively, impartially and constructively.
- 9.6.4. If peer reviewers have any actual or potential conflicts of personal or professional interest with the research under review, which could jeopardise their ability to undertake the review scientifically and ethically, they should either disclose the conflict of interest or decline to review the work concerned. In such situations, their decision should be based on the type and severity of the conflict of interest.
- 9.6.5. When scientific misconduct or violation of ethics is discovered, the peer reviewer should take appropriate steps to report it to the relevant ethics review committee.

#### 9.7. National and international collaborative research

- 9.7.1. The university supports and encourages research collaboration and endorses the Montreal Statement on Research Integrity in Cross-Boundary Research Collaborations<sup>5</sup> as well as the African Charter on Transformative Research Collaborations<sup>6</sup>.
- 9.7.2. In national and international collaborative research, the parties are host institutions, collaborating institutions, researchers from both institutions, research participants and/or communities. It can also extend to members of communities.
- 9.7.3. A rationale must be provided to justify the necessity and benefits of collaborative research for all parties involved.
- 9.7.4. If research is conducted in a foreign country, the standards outlined in the UNISA Policy on Research Ethics and relevant South African legislative frameworks will take precedence and apply.
- 9.7.5. Research involving human participants must not commence without ethics approval by the ERCs of all collaborating institutions. This requirement may be waived by the relevant UNISA unit/college ERC if the local host institution's ERC is registered with the National Health Research Ethics Council (NHREC), or the international host institution adheres to minimum research ethics standards comparable to those set out in the UNISA Policy on Research Ethics.

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<sup>5</sup> The Montreal Statement on Research Integrity in Cross-Boundary Research Collaborations. Available at <https://www.wcrif.org/guidance/montreal-statement>

<sup>6</sup> African Charter on Transformative Research Collaborations. Available at <https://parc.bristol.ac.uk/africa-charter/>

- 9.7.6. Research cannot commence without informed consent from participants and/or communities.
- 9.7.7. There may be no exploitation of institutions, researchers, research participants or communities.
- 9.7.8. Institutions and researchers should assist indigenous communities and traditional societies in protecting their knowledge and resources and respecting what is traditionally sacred and secret.
- 9.7.9. Researchers involved in international collaborative research should understand and be sensitive to the social, economic and political conditions in which the research is conducted. This will alert them to the need to protect research participants who are, for example, subject to deprivations through poverty.
- 9.7.10. The relevant data protection requirements of jurisdictions with data protection laws, such as the European Union, should be considered for the processing of personal information of researchers and participants, and conditions should be included in the collaborative agreements.
- 9.7.11. Sharing personal information across borders with other researchers in other countries must meet the requirements of transborder information flows of the Protection of Personal Information Act 4 of 2013 to uphold substantially similar conditions for lawful processing or consent.
- 9.7.12. Researchers are responsible for ensuring that a clear understanding of their respective roles and responsibilities is developed at the beginning of the research collaboration and have a duty to adequately fulfil their respective research obligations. Researchers should formalise their research collaborations with a memorandum of understanding at the initiation of the collaboration.
- 9.7.13. The memorandum of understanding must, as far as practically possible, be reached between the host research institution and the collaborating institution on all aspects and the benefits that may accrue from the study. These include the ownership of intellectual property, management of the research process, data management, the fate of data and research specimens, divisions of responsibilities, finances, research output, publication strategy, sharing of burdens and benefits, the development of infrastructure and research capacity in the host country or institution, and an ombudsman to settle disputes.
- 9.7.14. Parties' intellectual property rights should be respected and acknowledged before the research commences.

## 9.8. Rights and responsibilities of funders, clients and sponsors

- 9.8.1. Researchers should ensure they have an explicit written research mandate from the client/sponsor/funder in which the research conditions, scope and terms are set out (e.g. the research problem, expected deliverables, financial commitments and timeframes).

- 9.8.2. The acceptance of a mandate should be sealed by a legally binding, written contract between the parties. This contract should specify the agreed-upon terms, including the rights and obligations of the parties involved and the ownership of intellectual property rights and benefits.
- 9.8.3. The position on disseminating and publishing findings from the research study should be clarified.
- 9.8.4. Researchers should recognise the right of the client/sponsor/funder to request information from them at any stage during the research. However, interference that may jeopardise the scientific integrity of the study or the interests of the research participants may oblige UNISA to stop the cooperation.
- 9.8.5. Clients/funders/sponsors should be aware of the UNISA Policy on Research Ethics. They have the right to receive a copy of the policy and to expect that the research proposal submitted for funding or sponsorship by researchers and UNISA contains the necessary information on ethical issues and complies with the policy.
- 9.8.6. Clients/funders/sponsors should respect the stipulations of the UNISA Policy on Research Ethics and should not expect researchers or UNISA to conduct research contrary to the policy, other related UNISA policies and/or legislative frameworks.
- 9.8.7. Where clients/sponsors/funders act directly or indirectly as gatekeepers by controlling access to the participants, researchers must not shift their responsibility to these gatekeepers. Researchers remain responsible for obtaining independent informed consent from participants and protecting their rights.

## **10. SUPPORT**

- 10.1. To achieve the objectives above, the university provides administrative, financial, and other support for the ethics review system and its associated processes.

## **11. CONSEQUENCE MANAGEMENT**

- 11.1. The Vice-Principal: Research, Postgraduate Studies, Innovation and Commercialisation and the relevant committees of the Council oversee the implementation of this policy.
- 11.2. All members of the Management Committee and the Extended Management Committee are accountable for implementing, monitoring and reporting on this policy within their respective areas of responsibility (KPAs) and spheres of influence.
- 11.3. Any employee, student or person performing a duty or function for and/or on behalf of the university can be charged in terms of the university's disciplinary code(s) if that person contravenes the letter and spirit of this policy.

## **12. MEASUREMENT AND BENCHMARKING**

- 12.1. To achieve the objectives above, the Unisa Policy on Research Ethics and relevant legal and ethical frameworks are fundamental guides to promote good research governance, conduct and practices.

12.2. The overarching guidance for research ethics is the National Department of Health's South African Ethics in Health Research Guidelines: Principles, Processes and Structures (NHREC, 2024)<sup>7</sup>.

### **13. AVAILABILITY AND REVISION OF POLICY**

13.1. To ensure transparency, copies of this policy and its specific policies and procedures are available online on the UNISA intranet.

13.2. This policy document and the specific policies and procedures it refers to are revised regularly (at least once every three years) to ensure that research ethics at UNISA continue to be managed in the university's long-term interest. Proposed amendments to the policy must comply with the UNISA Policy on Policy/Rules Formulation.

13.3. As with any other policy, the success of this policy depends on how the various research entities implement its directives.

### **14. APPLICABLE LEGISLATION**

The following legislation applies to this policy, but it is not an exhaustive list. Researchers must consistently stay informed and apply the relevant legislative requirements of their study fields.

- National Health Act 61 of 2003
- Intellectual Property Amendment Act 2010
- Copyright Act 98 of 1978
- Protection of Personal Information Act 4 of 2013
- Animal Protection Act 71 of 1962
- National Environmental Management: Biodiversity Act 101 of 2004

### **15. IMPLEMENTATION AT COLLEGE, SCHOOL, DEPARTMENTAL AND DIRECTORATE LEVELS**

15.1. University-wide operationalisation of research ethics governance is a shared responsibility by the Executive Director: Research, Innovation and Commercialisation and the executive deans of UNISA colleges.

15.2. Committees reviewing health and health-related research must be registered with the National Health Research Ethics Council (NHREC).

15.3. College ERCs/RECs approve medium- and high-risk research and report quarterly to the UNISA Research Ethics Review Committee (URERC).

15.4. School directors and chairs of departments are responsible for operationalising research ethics at school and departmental levels. These ERCs report to the college ERCs/RECs and approve low-risk research.

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<sup>7</sup> National Health Research Ethics Council (2024) South African Ethics in Health Research Guidelines: Principles, Processes and Structures, 3rd ed. National Department of Health of the Republic of South Africa. Pretoria: NDoH. 137p. ISBN 978-0-621-52027-9. Available at <https://www.health.gov.za/nhrec-guidelines/>

## **16.IMPLEMENTATION OF POLICY**

16.1.Council may, by notice, after consulting all stakeholders, make regulations, rules or standard operating procedures regarding any matter that may be necessary or expedient to prescribe to achieve the objectives of this policy.

16.2.This policy becomes effective from the date the Council approves it.

## **17.ADDENDA**

This policy has five addenda that provide guidelines relevant to various types of research.

- A1 RESEARCH INVOLVING HUMAN PARTICIPANTS
- A2 ANIMAL, PLANT, MOLECULAR AND CELL RESEARCH
- A3 COMMUNITY-ENGAGED RESEARCH
- A4 THE USE OF INDUCEMENTS IN HUMAN PARTICIPANT RESEARCH
- A5 ONLINE RESEARCH

## **18.ACKNOWLEDGEMENTS AND WORKS CONSULTED**

1. Department of Health. (2015). Ministerial Consent: Therapeutic Health Research with Minors: Operational Guidelines (2015). <https://www.health.gov.za/nhrec-guidelines/>
2. Department of Health (2021). DoH 2015 Guideline 3.4.1 Major incidents and research, including public health emergencies. <https://www.health.gov.za/nhrec-guidelines/>
3. Department of Health (2014). Regulations Relating to Research with Human Participants. Government Gazette, No. 38000, 19 September 2014. <http://www.gov.za/sites/www.gov.za/files/38000rg10268gon719.pdf>
4. Intellectual Property Laws Amendment Act 28 of 2013.
5. National Health Research Ethics Council. (2024). South African Ethics in Health Research Guidelines: Principles, Processes and Structures, 3rd ed. National Department of Health of the Republic of South Africa. Pretoria: NDoH. 137p. ISBN 978-0-621-52027-9. Available at <https://www.health.gov.za/nhrec-guidelines/>
6. National Health Act 61 of 2003 (Chapters 2, 8, 9 and supporting regulations).
7. Protection of Personal Information Act 4 of 2013.
8. South African National Standard: The Care and Use of Animals for Scientific Purposes. Standards SA. SANS 10386:2021
9. University of KwaZulu-Natal (2018). Policy on Research Ethics.
10. University of South Africa (2017). Policy on Academic Integrity.



## **ADDENDUM A1**

### **RESEARCH INVOLVING HUMAN PARTICIPANTS**

#### **1. BASIC PRINCIPLES FOR RESEARCH INVOLVING HUMAN PARTICIPANTS**

##### **1.1. Moral principles**

UNISA promotes the following four internationally recognised moral principles of ethics as bases for research:

- *Autonomy*. Research should respect the autonomy, rights and dignity of research participants.
- *Beneficence*. Research should make a positive contribution towards the welfare of people.
- *Non-maleficence*. Research should not cause harm to the research participant(s) or to people in general.
- *Justice*. The benefits and risks of research should be fairly distributed among people.

These principles are not ranked in any order of preference. In disputes, a balance between the four principles should be pursued.

##### **1.2. General ethical principles**

In addition to and expanding on the above moral principles, researchers should adhere to the following ten general ethical principles. The ethical principles may not, by themselves, resolve all ethical problems and dilemmas confronting researchers. Researchers may be required to balance the demands made by the ethical research principles and to favour one principle over another, depending on the context and circumstances of the research involved.

###### **1.2.1. Essentiality and relevance**

Before undertaking research, adequate consideration should be given to existing literature on the subject, the issue under study, and all available alternatives. Given the scarcity of resources in South Africa, it should be demonstrated that the research is in pursuit of knowledge and/or the public good.

###### **1.2.2. Maximisation of public interest and social justice**

Research should be carried out to benefit society and the environment and to maximise public interest and social justice. All efforts should be made to make public – in an appropriate manner and form, and at an appropriate time – information on the research undertaken and the results and implications of the completed research.

#### 1.2.3. **Competence, ability and commitment to research**

Researchers should be both personally and professionally qualified for their research. A commitment to research in general and the relevant subject in particular is an essential prerequisite for good and ethical research.

#### 1.2.4. **Respect for and protection of the rights and interests of participants and institutions**

Researchers should respect and protect participants' dignity, privacy, confidentiality, and, where relevant, institutions. This entails the nondisclosure of personal information (e.g. identifying information and images) to others. Participants may consent to the disclosure, preferably in writing. Researchers should ensure that the personal information of participants is used only for the agreed research purposes and that it is adequately protected to prevent possible loss, damage and/or unauthorised access, as required by the Protection of Personal Information Act 4 of 2013. They should never expose participants and institutions to procedures or risks not directly attached to the research project or its methodology. Research and the pursuit of knowledge should not be regarded as the supreme goal, at the expense of the rights of participants and institutions.

#### 1.2.5. **Informed and non-coerced consent**

Autonomy requires that individuals' participation be freely given, based on informed consent and for a specific purpose, as required by the Protection of Personal Information Act 4 of 2013. Direct or indirect coercion and undue inducement of people in the name of research should be avoided. These acts are barriers to autonomous decision-making and may result in persons consenting – against their better judgment – to participate in studies involving risks.

#### 1.2.6. **Respect for cultural differences**

Researchers should treat research participants as unique human beings within the context of their community systems and should respect what could be traditionally sacred and secret. Research should preferably be undertaken **with** the members of an identified community or communities, rather than merely **about** such community/communities. In some situations, the consent of "gatekeepers" may have to be obtained in addition to that of research participants.

#### 1.2.7. **Justice, fairness and objectivity**

Criteria for the selection of research participants should be fair as well as scientific. Easily accessible individuals or groups should not be inordinately burdened by the researcher with repeated demands on their time and knowledge.

#### 1.2.8. **Integrity, transparency and accountability**

The research should be conducted honestly, fairly, and transparently. Researchers should be honest about their limitations, competence, belief systems, values and needs. The contribution of other researchers or research team members should be properly acknowledged. Researchers should not abuse their positions or knowledge for personal power or gain.

#### 1.2.9. **Risk minimisation**

Researchers should ensure that the actual benefits derived by the participants or wider society from the research outweigh any possible risks. The participants, researchers, institutions and the environment must only be subjected to the risks necessary for conducting the research. Researchers should ensure that these risks are assessed and that adequate precautions are taken to minimise and mitigate risk in line with the UNISA Research Ethics Risk Assessment Standard Operating Procedure.

#### **1.2.10. Non-exploitation**

There should be no exploitation of research participants, researchers (including students and junior members), communities, institutions or vulnerable people. The researchers should ensure that the processing of the participant's personal information is done in line with the Protection of Personal Information Act 4 of 2013 requirements and that the information is not used for unlawful and secondary purposes incompatible with the original purpose consented to by the participants. Moreover, there should be benefits for the community in which the research is conducted. As far as possible, feedback should be given to participants and other relevant stakeholders. When research is carried out with communities, they must receive feedback on the results.

## **2. RELATIONSHIP BETWEEN RESEARCHERS AND PARTICIPANTS**

- 2.1. Participants are indispensable and worthy partners in research. Researchers should respect and protect the rights and interests of participants at every stage and level of research and acknowledge their contribution.
- 2.2. Demographic information should not be used in research to discriminate or cause loss of social standing for participants<sup>8</sup>.
- 2.3. The risks and benefits of the research to the prospective participants should be fully weighed, and the participants informed of them. Research that could lead to unnecessary physical, social, legal, psychological, health and/or safety harm in the short or long term should not be undertaken. Researchers should identify potential risks to participants and make provisions to avoid them. When risks form part of conducting the study, efforts should be made to mitigate the risks and protect the participants, environment and researchers.
- 2.4. All steps should be taken to prevent harm (physical, legal, health and safety, psychological and/or spiritual), injury or loss of opportunity to participants, researchers and the environment. If harm, injury or loss of opportunity should occur, it should be dealt with following the relevant policy and/or legislative frameworks.
- 2.5. If, during the research, it becomes evident that a participant or any other legal or juristic person involved in the study or the environment has suffered unforeseen harm due to the research, this should immediately be reported to the University Research ERC (URERC) and the relevant unit ERC for immediate investigation and action. Such action may, for example, include suspending a study or referring the participant(s) for counselling.
- 2.6. The criteria for selecting research participants should be fair.

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<sup>8</sup> Constitution of the Republic of South Africa, 1996. Chapter 2: Bill of Rights, section 9(3).



- 2.7. A mutually beneficial agreement should be in place if a community or research setting is used as a continuous and long-term resource for collecting data for curricular research or training.
- 2.8. The relevant social, cultural and historical background of participants should be considered in the planning and conducting of research.
- 2.9. Researchers should not infringe on the autonomy of participants by resorting to coercion, undue influence or the promise of unrealistic benefits.
- 2.10. Coercion may include taking undue advantage of individuals or abusing their participation in the research.
- 2.11. Inducement may include a promise of material or financial gain, services or opportunities. Researchers and research ethics committees (ERCs) should carefully consider the appropriateness of proposed financial or other inducements to research participants, whether children or adults, parents or guardians of children, or community gatekeepers.
- 2.12. Reimbursement of expenses (e.g. transport costs, meals) or compensation for the time or effort expended or any opportunity that may be lost is allowed, on condition that all participants are offered similar reimbursement and that such reimbursement is aimed only at compensating the participants. (Refer to Addendum 4 of this Policy, Guidelines on using inducements in human participant research).
- 2.13. Participants should be informed of the UNISA Policy on Research Ethics and given details of the ethics review committee. The policy should be made available to them if it can help them to make an informed decision regarding their participation. Researchers may not instruct participants to participate in research under conditions that could be burdensome, abusive or threatening, or that have the potential to risk or abuse the participant's position. Unfairness or anything that prevents the participant from freely terminating their participation is not permissible, nor should there be any negative consequences if the participant chooses to do so.
- 2.14. Researchers must acknowledge, declare and indicate how they will mitigate real or perceived conflicts of interest.

### **3. INFORMED CONSENT**

- 3.1. The participation of individuals should be based on their freely given, specific and informed consent. At any stage, researchers should respect their right to refuse to participate in aspects of the research or to withdraw their previously given consent without demanding reasons or imposing penalties.
- 3.2. Participants should provide written consent, preferably with their signature. They, in turn, should be given written information containing adequate details of the research, including any risks associated with the study. If participants refuse to provide their consent in writing, consent may be recorded verbally, provided that verbal consent can be linked to the individual providing such verbal consent. For example, where a participant is illiterate, consent could be obtained in the presence of a literate witness who should verify and sign a document stating that informed consent has been given. Where the research is done online or electronically, informed consent can be obtained electronically but in a format that is separate from the online research to protect the participant's identity (Refer to Addendum 5 of this Policy for guidance on online research).

- 3.3. Participants should be informed about the requirements of the Protection of Personal Information Act 4 of 2013, particularly those relating to the openness principle when their personal information is being collected.
- 3.4. Participants must be informed and provide consent for data sharing or future use of the data for projects with a similar purpose, if applicable. Re-consent must be obtained for the future use of stored data for which participants did not grant consent.
- 3.5. Consent for participation in research is freely given and informed if
  - 3.5.1. it is given without any direct/indirect coercion or inducement;
  - 3.5.2. prospective participants have been informed about the processing and purpose of the intended research;
  - 3.5.3. prospective participants have understood this information and have indicated this, as per paragraph 3.2;
  - 3.5.4. the researcher has answered any question(s) about the research and their participation; and
  - 3.5.5. it is given before research commences.

### **3.6. Non-disclosure of information or covert research**

- 3.6.1. In some situations, the methodology or practicalities of a research project may necessitate the concealment of information. This may be because behaviour changes may result, or responses may be affected when such details are revealed to participants. In such a case, the researcher should determine beforehand
  - (a) whether the use of such a methodology is justified by its potential scientific, educational or applied benefits; and
  - (b) whether alternative procedures that do not require the concealment of information should be used instead.
- 3.6.2. If the use of such methodology is deemed justifiable by the researcher, they should take the following steps:
  - (a) When obtaining informed consent, the research proposal and methodology should provide a detailed justification for the concealment of all necessary information. This justification should be subject to scientific and ethics approval by the relevant ethics review committee. Only after the committee has given its approval should such research be undertaken.
  - (b) The participants' right to privacy, anonymity, and confidentiality gain additional importance in such cases, as they do not know the real purpose or objectives for which they provide information.
  - (c) Even if scientific and ethics reviews permit withholding certain information about the study, participants must still be provided with all other relevant details. Researchers must never withhold information about risks, discomfort, unpleasant emotional experiences, or any other crucial factors for participants to make an informed decision about their participation.

- (d) Participants should be provided with the reasons for not obtaining full information as soon as possible after the research is completed (debriefing) and must provide consent for the data to be used. Services such as counselling and referrals should be offered if necessary.

### **3.7. Consent where gatekeepers or organisational structures are involved**

- 3.7.1. It is the responsibility of the principal researcher to ensure compliance with the research policy/directives of gatekeepers or organisational structures.
- 3.7.2. In some situations, permission may be needed from the gatekeeper to access the participants, information and/or research sites.
- 3.7.3. For research involving UNISA employees, students or data, permission must be obtained from the UNISA Research Permission Committee.
- 3.7.4. Care should be taken in the following situations:
  - 3.7.4.1. Permission obtained from the gatekeeper may not be substituted for the need to obtain separate and informed consent from the participants. The rights of participants in such a situation are the same as in all other cases.
  - 3.7.4.2. During research or data collection, care should be taken to ensure that the relationship between the gatekeeper and the participants is not jeopardised.

### **3.8. Vulnerable participants**

- 3.8.1. Researchers should protect the rights and interests of vulnerable participants.
- 3.8.2. Research results that can be obtained from adults should never be elicited from children. Children should participate only when their participation is indispensable to the research. The protection and best interests of children are of prime importance.
- 3.8.3. Therapeutic research or experimentation on a child under the age of 18 years may be conducted only if it is in the best interests of the child and if the assent of the child (if they are capable of understanding) and the consent of their parent or guardian has been obtained.
- 3.8.4. Non-therapeutic research or experimentation may be conducted on a child under the age of 18 years only with the consent of the following persons: The minister responsible for social development, an ethics review committee registered with the NHREC, the parent or guardian of the child, and the child (if they are capable of understanding/giving assent).

### **3.9. Where research involves the participation of persons unfamiliar with the language in which the research is to be conducted, the principal researcher must ensure that**

- 3.9.1. the participant's information statement has been translated into the participant's language;
- 3.9.2. the participant understands the information statement they have been given; and
- 3.9.3. if a researcher is not familiar with a participant's language, an interpreter must be

present during discussions about the study to ensure clear communication. As a rule, the interpreter should be independent, but when the research proposal carries minimal risk, a relevant language-speaking relative or friend of the participant may be acceptable.

#### **4. PRIVACY, ANONYMITY AND CONFIDENTIALITY**

- 4.1. All research participants have the right to privacy to the extent permitted by law or as directed by legal frameworks.
- 4.2. Personal information should be collected and processed in accordance with the Protection of Personal Information Act 4 of 2013.
- 4.3. Privacy includes autonomy over personal information, anonymity and confidentiality, especially if the research deals with stigmatising, sensitive or potentially damaging issues or information. When deciding on what information should be regarded as private and confidential, the perspective of the participant(s) on the matter should be respected.
- 4.4. Personal information may be collected only for specific, explicit, lawful research purposes.
- 4.5. Only adequate, relevant and limited personal information may be collected on research participants.
- 4.6. The researchers must take reasonably practical steps to ensure that the research participant's information is complete, accurate, not misleading and updated, where necessary.
- 4.7. All personal information and records provided by participants should remain confidential throughout the information processing life cycle, including when sharing with third parties and being destroyed. During data collection, It should be clear that confidentiality and anonymity will be safeguarded unless waived by the research participant. Participants should be allowed to respond anonymously or under a pseudonym whenever it is methodologically feasible to protect their identity and privacy.
- 4.8. All personal information obtained directly or indirectly on or about the participants (e.g. names obtained by researchers from hospital and school records), as well as information obtained during research that may reveal the identity of participants, should remain confidential and anonymous. This guarantee should also be given when researchers ask for consent to use data not already available within the public domain (e.g. classified data on prisoners held by the Department of Correctional Services).
- 4.9. The request for information under the Promotion of Access to Information Act 2 of 2000 should be made if a research participant requests access to the personal information records processed by UNISA for research purposes. The request must be submitted to the Directorate: Institutional Information.
- 4.10. In the case of observation (e.g. of a public scene), steps should be taken to ensure that the information will not be used or published in a form where the individuals could be identified.
- 4.11. Researchers should maintain privacy, anonymity and confidentiality of information in collecting, creating, storing, accessing, transferring and disposing of personal records and data under their control, whether these are written, automated or recorded in any other medium, including on computer equipment, graphs, drawings, photographs, films or other devices in which visual images are embedded.

- 4.12. Researchers should preserve research records for at least fifteen years (or as required by policy or legal frameworks) after submitting the report or the results.
- 4.13. Researchers should take reasonable technical and operational steps to ensure that research records are stored in such a manner as to protect the confidentiality of records and the anonymity of participants.
- 4.14. Codes or other identifiers should, where possible, be used to break obvious connections between data and individuals/organisations/institutions. Where there is a mixture of information obtained from the public domain and with the participants' informed consent, there should be no traceable link between the two sets of information.
- 4.15. Confidentiality and anonymity of participants, their localities and research sites should be maintained when reporting to clients/sponsors/funders or disseminating the findings in any other way. Participants or research sites should be identified or identifiable only if there are compelling reasons for doing so and with their explicit informed consent in writing.
- 4.16. Research findings published in the public domain (e.g. theses and articles) related to specific participants (e.g. organisations or communities) should protect their privacy. Identifiers that could be traced back to the participants in the study should be excluded. However, in certain cases, the public interest may override the right to privacy and necessitate identifying participants or institutions in reports (e.g., when a company is found to be using child labour).
- 4.17. Participants' consent should be sought where data identifying them are to be shared with individuals or organisations not part of the research team.
- 4.18. The obligation to maintain privacy, anonymity and confidentiality extends to the research team, other researchers at UNISA, UNISA administrative employees, and all persons (from within or outside UNISA) not directly associated with the research, who might have access to the information.
- 4.19. In the event of a data breach of research participants' personal information, the notification and communication process outlined by UNISA's Protection of Personal Information Policy should be followed.
- 4.20. Research cannot commence without informed consent from participants and/or communities.
- 4.21. There may be no exploitation of institutions, researchers, research participants or communities.
- 4.22. Institutions and researchers should assist indigenous communities and traditional societies protect their knowledge and resources and respect what is traditionally sacred and secret.
- 4.23. Researchers involved in international collaborative research should have some understanding of and be sensitive to the social, economic and political conditions in which the research is carried out. This will alert them to the need to protect research participants who are, for example, subject to deprivations through poverty.
- 4.24. The relevant data protection requirements of the jurisdictions of the participating parties should be considered for the processing of personal information of researchers and participants, and requirements should be included in the collaborative agreements.

## 5. ACKNOWLEDGEMENTS AND WORKS CONSULTED

1. Belmont Report (1978). <https://www.hhs.gov/ohrp/regulations-and-policy/belmont-report/index.html>
2. Intellectual Property Laws Amendment Act 28 of 2013
3. Protection of Personal Information Act 4 of 2013



## ADDENDUM A2

### 1. ANIMAL, PLANT, MOLECULAR AND CELL RESEARCH

#### 1.1. PREAMBLE

UNISA's commitment to ethical research applies to all aspects of the use and care of, and the interaction with, animals for research purposes in medicine, biology, agriculture, nature conservation, animal health and other disciplines within UNISA and in collaboration with other institutions. UNISA abides by the South African National Standards document (SANS 10386: 2021) concerning animal research. UNISA's commitment to ethical research includes research on plants and molecular and cell research, which may include research on genetically modified organisms.

#### 1.2. DEFINITIONS

Animal	means any live non-human vertebrate, such as fish, amphibians, reptiles, birds and mammals, domestic animals, purpose-bred animals, livestock, wildlife and cephalopods like octopus and squid. The definition includes eggs, fetuses, embryos, and higher invertebrates such as advanced members of the Cephalopoda and Decapoda.
Animal welfare	refers to an animal's quality of life-based on an assessment of its physical and psychological state as an indication of how the animal is coping with the ongoing situation, as well as a judgement about how the animal feels.
Animal well-being	refers to an animal's present state considering all aspects of its environment, both internal and external. It implies a positive mental state, improved physiological and biological functioning, positive experiences and freedom from any adverse condition.
Death as an endpoint	is the deliberate and intended measure to evaluate biological or chemical processes, responses or effects. In such cases, the animal will not be killed humanely, but death will be allowed to occur during a scientific activity.
Distress	indicates the state of an animal that cannot adapt completely to stress and results in abnormal physiological and/or behavioural responses. Distress can be chronic or acute and may result in pathological conditions.
Ethics	applies to whether actions are regarded as good or bad, right or wrong. Ethical considerations are applied in evaluating what should or should not be done when animals are proposed for use or are used for scientific and teaching purposes.
Euthanasia	is the humane killing of an animal consistent with veterinary recommendations and practice. Euthanasia is applied when the animal's pain and distress are so acute that it is judged necessary.
Genetically modified organism	means an organism, the genes or genetic material of which have been modified in a way that does not occur naturally through mating, through a natural recombination or both. "Genetic modification" has a corresponding meaning (Genetically Modified Organisms Act 15 of 1997).
Humane killing	is the killing of an animal by causing minimal pain and distress.
Livestock	refers to animals that are used in agriculture and aquaculture.
Pain	means an unpleasant sensory and/or emotional experience associated with actual or potential tissue damage. It may provoke protective actions and result in avoidance and distress, and it may modify behaviour.

refers to free-living animals of native, non-indigenous or feral species, including captive-bred animals and those captured from free-living populations.

## 2. USE OF ANIMALS IN RESEARCH

### 2.1. General principles for the care and use of animals in research

- 2.1.1. All vertebrate animals are protected in South Africa by the Animal Protection Act 71 of 1962, and the use of animals for research must comply with this Act. Therefore, these guidelines emphasise the responsibility of researchers to
  - 2.1.1.1. ensure that the use of animals is justified;
  - 2.1.1.2. ensure that optimal standards in terms of animal health, care and welfare are observed;
  - 2.1.1.3. use animals only when alternative techniques and research methods for a certain project do not exist;
  - 2.1.1.4. use only the number of animals absolutely required by the study; and
  - 2.1.1.5. refine methods and procedures to minimise or avoid pain or distress in animals used in research projects.
- 2.1.2. The guidelines require that researchers adhere to the 4R principles of **responsibility, replacement, reduction and refinement** when planning and conducting animal research studies. For each research study using animals, an animal ethics review committee (ERC) should determine whether the rules of these guidelines are adhered to before approving such projects. See paragraphs 2.3, 2.4, 2.5 and 2.6 below for describing the “4R” principles.
- 2.1.3. These guidelines apply to all live non-human vertebrates and higher-order invertebrates, such as fish, amphibians, reptiles, birds and mammals, including domestic animals, purpose-bred animals, livestock and wildlife, as well as cephalopods such as octopus and squid. Early stages of development, such as embryonic, foetal and larval forms, are also included. As different species develop differently, the experience of pain and distress in those developmental stages varies. Therefore, decisions regarding animals' welfare and developmental stages should be made for each case, based on specific knowledge and evidence of the animal's neurobiological development.
- 2.1.4. Researchers must be committed to the welfare of the animals they use and must respect their contribution to research.
- 2.1.5. Researchers must ensure that procedures that cause hunger, thirst, injury, disease, discomfort, fear, distress, deprivation or pain to the animals involved in the studies are limited to the absolute minimum. The elimination or reduction of such conditions experienced by an animal will be achieved by applying the “4R” principles. See paragraphs 2.3 to 2.6 below.

### 2.2. Justification

- 2.2.1. The use of animals for research purposes must be justified by ensuring that the outcomes of the studies will essentially contribute to
  - 2.2.1.1. the understanding of humans and/or animals;



- 2.2.1.2. the maintenance and improvement of human and/or animal health or welfare;
- 2.2.1.3. the improvement of animal management or production;
- 2.2.1.4. the understanding, maintenance or improvement of the natural environment; and
- 2.2.1.5. ensuring that the potential benefits outweigh the potential harm to the animals used.
- 2.2.2. Approval for each research project involving animals must be based on whether the project is justified and whether the potential benefits outweigh the potential harmful effects on the animals' welfare.
- 2.2.3. Researchers must submit written proposals to the animal ERC for all projects involving animals. These proposals must address the expected value of knowledge to be gained, justification for the project and ethical analysis regarding the animal welfare aspects under consideration of the "4 R" principles (responsibilities, replacement, reduction and refinement)

### **2.3. Responsibilities**

#### **2.3.1. Responsibilities of researchers**

The researchers' adherence to these guidelines will ensure transparency that should result in high-quality ethical and scientific screening of proposals and monitoring of research studies. Researchers are responsible for all matters relating to the welfare of the animals they use. They should respect the animals and their demands and not treat animals as objects. Research objectives should be subordinate to the humane treatment of animals. According to the Animal Protection Act 71 of 1962, researchers and teachers have direct and ultimate ethical and legal responsibility for all matters related to the welfare of the animals they use.

- 2.3.1.1. The responsibility of researchers for the welfare of animals involved in their studies begins with the design of a project and ends with the completion of the project unless unforeseen long-term negative effects result from the experiments. According to the Animal Protection Act 71 of 1962, researchers and teachers have direct and ultimate ethical and legal responsibility for all matters related to the welfare of the animals they use. Under these circumstances, the researcher's responsibility continues until these issues have been addressed satisfactorily. A veterinarian must be consulted during the protocol design when invasive procedures are used.
- 2.3.1.2. When applying for approval for a research project, researchers must inform the animal ERC of any other institutions participating in the project. The norm is to obtain ethics approval or a letter of approval from all the involved institutions before the project commences.
- 2.3.1.3. UNISA's animal ERC must be informed in writing if a researcher plans to participate in a research project at another institution. Ethics approval or a letter of approval should be sought from both institutions before the project commences.

- 2.3.1.4. Researchers must keep complete records of all matters related to the animals used during a research project.
- 2.3.1.5. Researchers must choose a species appropriate for their research purpose.
- 2.3.1.6. When livestock are used in research projects, standard husbandry procedures carried out for research purposes need approval by the animal ERC. Approval from the Department of Agriculture, Forestry and Fisheries may have to be obtained in the form of a permit under section 20 of the Animal Diseases Act 35 of 1984. Approval is also required for the use of livestock to produce any biological products other than food or fibre. Approval is not required for regulatory inspection measures, such as controlling external parasites or disease surveillance by qualified personnel.
- 2.3.1.7. In their proposals submitted to the animal ERC for approval, researchers must indicate the category of experiments applicable. The qualifications, experience, and specific knowledge of researchers and employees regarding the performance of experimental procedures on the used animals must be stated in detail. Such researchers and employees must be competent in the relevant South African legislation and the Rules for Veterinary and Para-veterinary Professionals, as stipulated by the South African Veterinary Council. The qualifications and experience of employees responsible for or involved in the care and husbandry of the used animals must also be addressed clearly in the proposal. A veterinarian must be affiliated with the project so that they may be called in during an emergency and be aware of the project and its outcomes.
- 2.3.1.8. When privately owned animals are used in a research project and where those animals remain under the responsibility of their owners, their employees or other personnel will continue to attend to the day-to-day tasks of treatment, care and welfare. The responsibilities of the owner and the researcher in this regard must be stated clearly in the proposal. The owner should provide the researcher and animal ERC with the details of the supervising veterinarian.
- 2.3.1.9. Researchers are obliged to submit annual progress reports to the animal ERC. They need to inform the animal ERC immediately if there are any unexpected adverse effects on the animals resulting from the procedures and advise when a project has been completed or discontinued. Annual progress reports should be submitted.
- 2.3.1.10. Research activities may not be performed before written approval has been granted by the animal ERC.
- 2.3.1.11. The acquisition, care and use of animals for research purposes in South Africa must be done under the relevant South African legislation, including the National Environmental Management: Biodiversity Act 101 of 2004, which aims to prevent bio-piracy of indigenous biological resources. The SANS 10386:2021, which governs the use and care of animals for scientific purposes, is a nationally accepted standard incorporated into certain provincial legislation and adhered to by UNISA.

### 2.3.2. Responsibilities of the institution

Through the animal ERC, UNISA should ensure that all research projects using animals adhere to the standards and requirements of these guidelines, which include monitoring, inspecting and assessing the acquisition, transportation, production, housing, care, use and disposal of animals. UNISA adheres to the implementation of the SANS: 10386:2021 regarding the use and care of animals for scientific purposes, as it is a nationally accepted and recognised standard when doing animal research and has been accepted into certain provincial legislation.

### 2.4. Replacement

Techniques, models or systems that can replace the use of animals completely or partially must be investigated, developed and used.

### 2.5. Reduction

2.5.1. Reducing the number of animals used in research studies means that only the minimum number necessary to obtain valid information or results must be used.

2.5.2. Reducing the number of animals should not be considered if it means they will suffer disproportionately.

2.5.3. An animal should not be exposed to repeated procedures unless it is essential for the purpose of the project.

2.5.4. The killing of healthy animals should be kept to the absolute minimum number required by the study.

### 2.6. Refinement

Refinement of animal sourcing, animal care, and procedures means minimising or eliminating physical or psychological distress imposed on the animals by the requirements of the research study.

2.6.1. Animals selected for a research project must suit the specific purpose.

2.6.2. The care of animals should be according to species-specific needs in terms of behavioural and biological requirements.

2.6.3. Where possible, animals bred in captivity should be used for projects involving wildlife species.

2.6.4. Researchers must be competent in the procedures their projects require, or they must make use of a person competent in the procedures.

2.6.5. Project design must be aimed at avoiding or minimising pain and distress.

2.6.6. Pain and distress in animals must be evaluated based on relevant species-specific knowledge. In principle, it must be assumed that animals experience pain and distress similar to humans, so decisions regarding the animals' welfare should be based on this assumption.

2.6.7. Unpredicted pain or distress in animals should be alleviated immediately,

irrespective of the effect on the project. If alleviation is not possible, the animal should be euthanised without delay.

- 2.6.8. Any procedure carried out under anaesthesia or sedation in medical or veterinary practice must be carried out using anaesthetics appropriate to the species and the procedure.
- 2.6.9. Appropriate pain management must be applied.
- 2.6.10. If the purpose of a procedure inhibits the use of anaesthetic or analgesic drugs to alleviate pain or distress, the procedures must be carried out in such a way as to minimise the degree of pain and distress and the duration thereof to which the animal is exposed.
- 2.6.11. Death as an endpoint, that is, when the death of an animal is a deliberate measure used to evaluate biological or chemical processes, responses or effects, must be avoided as much as possible. If death as an endpoint is unavoidable, distress should be minimised by choosing the earliest endpoint compatible with the research study's scientific objectives.
- 2.6.12. The duration of animals' exposure to research procedures must be kept to a minimum.

## **2.7. Wildlife studies**

This section refers to free-living vertebrates, native, non-indigenous or feral species, such as captive-bred animals and those captured from free-living populations. All research projects and scientific wildlife studies are subject to animal ERC approval. In addition to the requirements and responsibilities listed above, the following applies to research involving wildlife:

- 2.7.1. As national and/or international laws protect many wildlife species, conservation authorities must be consulted when these species are involved in the research, and permits must be obtained if required.
- 2.7.2. Observational studies of free-living animals must be designed to minimise any impact on the animal's well-being.
- 2.7.3. As field studies may cause disturbances in the environment or habitat and subsequently affect target and non-target species adversely, such disturbances should be minimised.
- 2.7.4. Studies and research projects must not be repeated unnecessarily. When repeated studies are proposed, the animal ERC must decide whether the repetition is scientifically justified for the specific research purpose. Animal ERC approval is required every time a study is to be repeated.
- 2.7.5. Capturing, holding, transporting, handling and releasing free-living animals must be in accordance with the following conditions:
  - 2.7.5.1 The relevant permits must be obtained and submitted when applying for ethics clearance.
  - 2.7.5.2 Researchers must be aware that the effects of numerous stressors can be cumulative.

- 2.7.5.3 Potential sources of stress must be identified and the measures to minimise them must be addressed in the proposal.
- 2.7.5.4 Materials and equipment used during the capturing, holding, handling and transport of animals must be maintained in good condition and kept clean to avoid injuries to animals or to the personnel handling them, as well as to minimise the risk of disease transmission.
- 2.7.5.5 When wildlife is captured, any distress caused to the captured animals and the populations from which they are taken must be minimised.
- 2.7.5.6 When capturing is applied, the proposal must include details about the capturing method and the people's skills involved in the process.
- 2.7.5.7 Handling, restraining and transportation of captured free-living animals must be appropriate to the species and must be done in such a way as to minimise the risk of injury and/or stress-induced disease.
- 2.7.5.8 The holding time for captured animals must be as short as possible to achieve the envisaged scientific objectives. Holding of an animal must be done in such a way as to minimise stress and the risk of injuries.
- 2.7.5.9 Animals should be released at the capture site unless an alternative site is rationalised in the proposal and approved by the animal ERC.
- 2.7.5.10 Identification of individual animals must be done by using a method that causes the least distress and interference with the normal functioning of the animal, but without hindering the research outcome. Identification done for routine husbandry purposes does not require animal ERC approval.
- 2.7.5.11 Research on wildlife interaction and behaviour includes interaction between species (e.g. predator-prey), within a species (e.g. competition) and between species and habitat. Ethical considerations regarding these studies involve the degree of manipulation required and the effect of the researcher on the interaction. Proposals should address the well-being of the animals primarily targeted in the project and the other species that may be adversely affected by the research.

### **3. USE OF PLANTS IN RESEARCH**

#### **3.1. UNISA supports the following ethical principles when plant research is conducted:**

- 3.1.1. All plant researchers abide by the stipulations of the National Environmental Management: Biodiversity Act 101 of 2004.
- 3.1.2. The SANBI red list of endangered species in South Africa will be followed to ensure

the classification of the plant species in terms of whether they are endangered.

- 3.1.3. Neither indigenous plant species nor the indigenous knowledge related to the plants will be exploited.
- 3.1.4. Respect for the environment and/or property from which plants or plant material is collected must be upheld.

### **3.2. Regulations**

- 3.2.1. Where required, permits should always be sought for the transportation of plant material nationally and internationally.
- 3.2.2. Respect for the habitat should prevail when plant material is collected.
- 3.2.3. Only the quantity of plant material required to conduct scientific research should be harvested.
- 3.2.4. Collection of plant material should not endanger any species' existence.
- 3.2.5. When agricultural research is done, cognisance should be taken of the above-mentioned points when plants are used for crop purposes.
- 3.2.6. Experimental designs used in agricultural research should not endanger the environment or persons involved in the research.
- 3.2.7. Care should be taken to ensure that crop experimentation does not endanger future crops due to toxic residue in the ground resulting from a particular experimental design.
- 3.2.8. The termination of an agricultural trial should be considered in terms of the toxicity of the remaining ground in which the crop or plant trials were conducted.
- 3.2.9. Water used in the irrigation of plant trials should not damage the environment or any person, animal or living organism during or after the experiment or trial.
- 3.2.10. If insects are bred or used during any crop- or plant-related research trials or experiments, all possible measures should be taken to ensure that the environment or any person, animal or living organism is not endangered.
- 3.2.11. Spraying of crops or any plants should follow strict health and safety procedures.
- 3.2.12. Plant boxes or any horticultural plant containers should be returned to their original state to ensure that the contamination of any new plant-related experiments is minimised.
- 3.2.13. All rules, regulations and guidelines used to guide plant research in the horticultural centre at UNISA must always be upheld.

## **4. MOLECULAR AND CELL RESEARCH**

- 4.1. UNISA abides by all relevant Acts that regulate molecular and cell research, as well as biomedical research in South Africa. Researchers conducting any form of molecular and/or cell research should follow the principles of the Health and Safety Act and all its

regulations and guidelines.

4.2. Researchers should adhere to the following ethical principles when conducting molecular and cell research:

- 4.2.1. Laboratories should have standard operating procedures (SOPs) for the procedures that will be undertaken in the laboratory.
- 4.2.2. Laboratories should ideally be accredited with the necessary documentation submitted as proof of accreditation.
- 4.2.3. Molecular and cell research projects should be registered with the relevant laboratory manager, and a laboratory notebook/logbook should be kept of all processes in the experiment.
- 4.2.4. Researchers should adhere to standard operating procedures that apply in the laboratory they are utilising.

4.3. Researchers should adhere to the following ethical principles when conducting genetically modified organism research:

- 4.3.1. In South Africa, the development, production, use and application of genetically modified organisms – including viruses and bacteriophages – are regulated by the Genetically Modified Organisms Act 15 of 1997. The Act defines a “genetically modified organism” as “an organism the genes or genetic material of which has been modified in a way that does not occur naturally through mating or natural recombination or both”, and “genetic modification” shall have a corresponding meaning.
- 4.3.2. To comply with the provisions of the Act, research projects and scientific studies need to adhere to the following conditions:
  - 4.3.2.1. Any institution, laboratory or similar facility where genetically modified organisms will be developed, produced, used or applied must be registered under the Act.
  - 4.3.2.2. A permit in terms of the Act must be obtained for importing, exporting, producing, using, applying, releasing and distributing genetically modified organisms.
  - 4.3.2.3. Institutions, laboratories or similar facilities may be authorised to use genetically modified organisms in a contained manner or a trial release.
  - 4.3.2.4. The researcher or supervisor of the study must provide evidence of their qualifications and experience in using genetically modified organisms.
  - 4.3.2.5. A research proposal must contain a risk assessment in terms of the possible impact of the programme on humans and/or the environment. In an accident involving genetically modified organisms, a copy of the written notification to the Registrar in terms of the Act must be submitted to the relevant ethics review committee.
  - 4.3.2.6. The liability for any possible damage caused by the use or release of genetically modified organisms should be addressed in the proposal.
  - 4.3.2.7. The public must be adequately notified about the trial release or the release of

genetically modified organisms if this forms part of the study.

4.3.2.8. Waste management and disposal procedures must be included in the proposal as part of the study.

4.4. Researchers should adhere to the appropriate guidelines when conducting biomedical experiments. Various categories of biomedical experiments exist including the following:

## 5. EXPERIMENTS

Category	Examples and comments
<b>Category A:</b>  Experiments involving no living materials or that use plants, bacteria, protozoa or invertebrate animal species	This category includes studies on biochemical, botanical, bacteriological, microbiological subjects, invertebrate animals, tissue cultures, tissues obtained from autopsies or slaughterhouses, and studies on embryonated eggs. Since invertebrate animals have nervous systems and can respond to harmful stimuli, they must be treated humanely. Additionally, studies on animal behaviour should be conducted in their natural environments to ensure ethical treatment.
<b>Category B:</b>  Experiments on vertebrate animal species that are expected to produce little or no discomfort	Merely holding animals captive for experimental purposes; simple procedures such as injections of relatively harmless substances and blood sampling, physical examinations, experiments on completely anaesthetised animals that do not regain consciousness; food/water deprivation for short periods (a few hours); standard methods of euthanasia that induce rapid unconsciousness, such as anaesthetic overdose or decapitation preceded by sedation of light anaesthesia; and restraining animals for feeding of ticks and other blood-sucking insects.



**Category C:**

Experiments that involve some minor stress or pain (of short duration) to animal species

Exposure of blood vessels or immolation of chronic catheters with anaesthesia; behavioural experiments on awake animals that involve short-term stressful vertebrate restraint; immunisation employing Freund's adjuvant; noxious stimuli from which escape is possible; surgical procedures under anaesthesia that may result in some minor postoperative discomfort. These procedures present additional concerns regarding the degree and duration of unavoidable stress or discomfort.

**Category D:**

Experiments that involve significant but unavoidable stress or pain to vertebrate species

Deliberate induction of behavioural stress to test its effect; major surgical procedures under anaesthesia that result in significant postoperative discomfort; induction of an anatomical or physiological deficit that will result in pain or distress; application of noxious stimuli from which escape is impossible; prolonged periods (up to several hours or more) of physical restraint; maternal deprivation with substitution of punitive surrogates; induction of aggressive behaviour leading to self-mutilation or intra-species aggression; procedures that produce pain in which anaesthetics are not used, such as toxicity testing with death as an endpoint; production of radiation sickness; certain injections; and stress and shock research that would result in pain approaching the pain tolerance threshold, that is, the point at which intense emotional reactions occur. These experiments involve explicit responsibility, and the investigator must explore alternative designs to ensure that animal distress is minimised or eliminated. Freund's adjuvant causes moderate to severe pain and inflammation and is a category D procedure.

**Category E:**

Procedures that involve severe pain near, at or above the pain tolerance threshold of unanaesthetised conscious animals

Use of muscle relaxants or paralytic drugs such as succinylcholine or other pain-inflicting curariform drugs used alone for surgical restraint without the use of anaesthetics; severe burn or trauma infliction on unanaesthetised animals; attempts to induce psychotic-like behaviour; killing by use of microwave ovens designed for domestic kitchens or by strychnine; inescapable severe stress or terminal stress. Category E experiments are considered highly questionable or unacceptable, irrespective of the significance of anticipated results. Many of these procedures are specifically prohibited in the national policies of some countries (e.g. the USA), and their use may result in the withdrawal of funds and/or registration.



## **ADDENDUM A3**

### **1. COMMUNITY-ENGAGED RESEARCH**

#### **1.1. PREAMBLE**

- 1.1.1. Community engagement within academia is understood as the scholarly activity of partnering and engaging with communities to exchange mutually beneficial knowledge and resources to benefit all. It recognises that academics will share the privileged “knowledge production” domain with community members. It blends more traditional forms of knowledge production with “lived experience”.
- 1.1.2. It is recognised that community-engaged research, such as community-based participatory research (CBPR) and participatory action research (PAR), are not methods of conducting research but are rather an orientation to research. Community-engaged research can involve quantitative, qualitative or combined data-gathering methods, depending on the issues under investigation. This orientation emphasises ownership, participation, access, control and possession by non-academic researchers/communities as values in creating knowledge and social change.
- 1.1.3. Community-engaged research combines knowledge with action and social change. The researcher must inform community leaders/gatekeepers and participants about the relevant aspects of the UNISA’s Policy on Research Ethics.
- 1.1.4. Although most of the scientific research methods used in PAR are like those used in other approaches, community-engaged researchers may not anticipate specific research questions or methods until becoming adequately acquainted with the community of interest. Collaborative enquiry is a precursor to a research intervention or planned activity. Research decisions and the foci of the research collaborations and partnerships arise from the community context.

#### **1.2. ABBREVIATIONS**

CBPR	means community-based participatory research.
CER	means community-engaged research.
PAR	means participatory action research.

#### **1.3. PURPOSE**

- 1.3.1. The Guidelines for Community-Engaged Research encourage ethical and respectful collaboration with communities for mutually beneficial engaged research.
- 1.3.2. Researchers need to demonstrate how the knowledge and insight of the community will be included in identifying the specific issues to be researched.
- 1.3.3. Researchers must demonstrate how they will enable community members to contribute their knowledge resources to the research, such as local and indigenous knowledge and other pragmatic contributions. In this regard, intellectual property rights must be negotiated and safeguarded.

- 1.3.4. Researchers must consider the timely provisioning of quality and relevant training for community research participants to build capacity in research participation.

## **1.4. SCOPE**

- 1.4.1. The cyclical nature of PAR might require researchers to seek ethical approval for each cycle of the research process if the research project is rated as being moderate- or high-risk. In low-risk interventions, the researcher must undertake, in the initial application, to ensure that all chosen methods will adhere to ethical standards and guidelines. It is understood that the committee cannot evaluate the scientific validity and ethical merit of a protocol that has not yet described its methods.
- 1.4.2. Integrity in CER is expressed in the researchers' commitment to adhere to the recognised principles of community-engaged research and in honest and ethical conduct and dissemination of findings in generating knowledge.

## **1.5. MORAL PRINCIPLES**

UNISA promotes the following five internationally recognised moral principles of research conducted in community settings<sup>9</sup>:

- 1.5.1. *Respect.* Researchers should respect individuals, the community, local culture, customs and the research contributions of the participants and community.
- 1.5.2. *Honesty.* Researchers should strive to promote honest and clear sharing of information with community leaders and participants throughout the life cycle of the research.
- 1.5.3. *Justice and fairness.* Community leaders and participants must be meaningfully involved in proposed studies, which includes being informed about the benefits that the participants and the community might expect.
- 1.5.4. *Care.* Research should be aligned with local needs and improve the lives of communities.
- 1.5.5. *Process.* Researchers must carefully follow the processes set out in research proposals.

## **1.6. FAIR SUBJECT SELECTION**

- 1.6.1. Researchers must consider how selecting certain research participants will aid them in achieving their research goals. It is recognised in community research that some stakeholders may drop out, and others may join the project later. The same ethical considerations must apply to all participants forming the collaborative research enterprise.
- 1.6.2. Researchers must make a concerted effort to consider how the research participants will benefit from the research. They should also consider how the research outcomes could be widely applicable.
- 1.6.3. Beneficiaries should be directly involved in the research. Researchers need to consider carefully how and at what stages in the cycle the beneficiaries should be involved.

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<sup>9</sup> San Code of Research Ethics. TRUST Project 2017.

- 1.6.4. Barriers must be removed to enable participation by community members. Researchers should consider aspects such as flexibility in scheduling, the cost of transport to research sites, and the safety of the participants.
- 1.6.5. A researcher must not discriminate in the selection and recruitment of actual or prospective participants by including or excluding them on the grounds of race, age, sex, disability or religious or spiritual beliefs, except where these criteria are essential to the purpose of the research.

## **1.7. FAVOURABLE RISK-BENEFIT RATIO**

- 1.7.1. Community-based research is specifically value-driven in that in the process of doing research, it can focus on the emancipation of a wide range of exploited or oppressed groups.
- 1.7.2. The risks to the participants must be proportionate to the possible benefits to individual participants or the community in general.
- 1.7.3. The researcher needs to demonstrate how they will sensitise themselves to the community's culture and politics.
- 1.7.4. Power play is evident in community politics; research might have political consequences that the researcher must mitigate. The researcher needs to consider these risks.

## **1.8. INFORMED CONSENT**

- 1.8.1. Informed consent in community-based research must include complete information about objectives, risks and adverse effects on participants.
- 1.8.2. Informed consent must indicate the roles and responsibilities of participants and community stakeholders in the project.
- 1.8.3. Researchers must provide a fair and just representation of the research. They must guard against overestimating the benefits for the community and participants.
- 1.8.4. Agreements must be made regarding the interpretation and ownership of data, authorship and dissemination of findings and financial accountability.
- 1.8.5. Blurred participant and researcher roles will necessitate special precautions to protect confidentiality.
- 1.8.6. Participants or a community may desire identification in certain circumstances for various reasons. Even in these situations, it is crucial to get informed consent after carefully weighing the possible advantages against the participants' or community's right to privacy and considering any risks of harm from the identification.
- 1.8.7. Procedures should be implemented to ensure participants, communities and stakeholders understand the information provided.
- 1.8.8. Researchers should emphasise the information exchange and negotiation process between researchers and potential participants, which should be formalised in an informed consent form.

- 1.8.9. Potential research participants should be allowed to discuss their decision with their families or peers.
- 1.8.10. If individuals do not want to sign a consent form but are willing to participate in the proposed research, alternative ways to record consent should be sought. These can include using digital recordings of oral consent or signing a register.
- 1.8.11. In cases where the participants refuse or are afraid to sign a consent form or be recorded, the researcher must keep a written record that participants have been informed, understood and accepted participation in the research but declined to sign or be recorded.
- 1.8.12. In some cases, obtaining consent from respected, traditional or elected community leaders might be important, as well as offering them an “Imvulamlo” (a gift to gain entry into a community setting). As part of the ethics approval, researchers must disclose the kind and amount of the gift and ensure that it does not restrict participants' individual or collective autonomy.

## **1.9. COMMUNITY INVOLVEMENT IN THE RESEARCH**

- 1.9.1. Permission for research must be obtained from state authorities, where needed, but should not be confused with the involvement of community bodies.
- 1.9.2. A ‘functional’ community body, such as a community advisory board or committee, should be involved in each research project. This can be an existing body or one created for the project’s specific purpose. At the minimum, the community should be consulted during the planning stage of the research, should be consulted on an ad hoc basis while the research is being conducted, and should be informed about the results in a structured manner at the end of the research.
- 1.9.3. Researchers must negotiate the method and particulars (i.e. authorship and co-authorship) of the release/dissemination of data (i.e. scientific journals or popular publications) with the community researchers. Researchers must consider the potential repercussions for the community if data (sensitive or not) are released prematurely, in an insensitive manner, or any other manner.
- 1.9.4. Community participation needs to be ensured, and it is important to be realistic about time and resource constraints.
- 1.9.5. UNISA should be careful not to ‘overuse’ a well-engaged community by doing research in that community too frequently. The Division for Community Engagement and Outreach (DCEO) will keep track of the communities where community-engaged projects are being conducted.
- 1.9.6. Where UNISA is providing an intervention as an outcome of any cycle of the research process as the sole provider, it should be aware that the community may feel unable to refuse or criticise the research results; therefore, UNISA researchers must guard against this risk.

## **2. ACKNOWLEDGEMENTS AND WORKS CONSULTED**

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## ADDENDUM A4

### 1. THE USE OF INDUCEMENTS IN HUMAN PARTICIPANT RESEARCH

#### 1.1. PREAMBLE

- 1.1.1. Many researchers experience research participation fatigue, with the number of willing voluntary participants dwindling even in short surveys.
- 1.1.2. Inducements encourage participation in research and may be offered in some circumstances where, for example, recruitment – especially of non-vulnerable participants – is anticipated to be difficult<sup>10</sup>.
- 1.1.3. For these guidelines, “inducements” include **fair reimbursement** of research participants – according to the TIE (time, inconvenience, expenses) framework – and **incentives** to negotiate access to and/or improve research participation among target populations. Incentivising participants constitutes anything given to participants to improve participation in research, whether monetary or kind.
- 1.1.4. A justification for this approach should be provided and the inducement should not unduly influence an informed choice about participation in research. An inducement should not undermine a potential participant’s assessment of the risk of harm.

#### 1.2. DEFINITIONS

Children	are individuals under the age of 18 years.
Incentives	are payment or concession to motivate targeted populations to participate in research; they could include a gift offered to community leaders to gain entry into a community setting (“Imvulamlo”).
Inducement	is an action taken by the researcher that encourages a targeted population to participate in research, including reimbursement and incentives.
Lottery	is a system where a participant may win a prize by chance. A lottery involving research participants at a university is not regarded as a gaming activity.
Reimbursement	is a fair repayment of the money equivalent to what the research participants have spent from their own pockets to participate in a research project, guided by the TIE (time, inconvenience and cost) model.
Undue inducements	are offers by the researcher that lead people to participate in research in which they would normally not participate because they have real objections based on risk or fundamental values.
Vulnerable groups/participants	are potential research participants whose voluntary participation in a research project may be unduly influenced by the benefits associated with participation. Examples are children, the elderly, pregnant women,

<sup>10</sup> South Africa. Department of Health. 2015. Ethics in Health Research: Principles, Processes and Structures.

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people with a cognitive or mental impairment, prisoners or people on parole, students, people living with HIV/AIDS, people in dependent relationships, persons with disabilities, socio-economically disadvantaged people, indigenous people and indigents.

### **1.3. PURPOSE**

The purpose of this guideline is to guide research that considers utilising reimbursements and incentives to induce research participation.

### **1.4. USE OF INDUCEMENTS IN RESEARCH**

#### **1.4.1. Reimbursement**

- 1.4.1.1. Reimbursement for participation in research is allowed for transport costs, meals, time or effort expended or any opportunity that may be lost on condition that all participants are offered fair reimbursement and that such reimbursement is aimed only at reimbursing the participants.
- 1.4.1.2. It is crucial that participation remain voluntary to guarantee autonomy, which is a fundamental ethical principle of obtaining informed consent.
- 1.4.1.3. The amounts reimbursed must be appropriate to the physical cost expended, the inconvenience or the opportunity lost, according to the TIE framework (time, inconvenience and other research-related expenses).
- 1.4.1.4. Participants must be made aware of the prospect of being reimbursed as part of the recruitment process.
- 1.4.1.5. Where children are involved in research, reimbursement should be made to the parents/guardians.
- 1.4.1.6. Reimbursement should not prohibit the prospective participants' independent decision to withdraw from the study at any moment. If the participant decides to withdraw from the study, reimbursement should still be paid for costs incurred or opportunity lost up to that stage.

#### **1.4.2. Incentives**

- 1.4.2.1. Incentives to motivate targeted populations to participate in research are allowed on condition that they do not constitute undue inducement.
- 1.4.2.2. Incentives may be monetary or in kind. Participation must remain voluntary since autonomy is a fundamental ethical principle of obtaining informed consent.
- 1.4.2.3. Incentives must be appropriate to the risk level of the research and should not be disproportionate, as this may lead to undue inducement.
- 1.4.2.4. Incentives should not prohibit the prospective participants' independent decision to withdraw from the study at any moment.



- 1.4.2.5. Ideally, in the principle of fairness, an incentive must be equal for all participants, or every participant must have the same chance of receiving it. However, in some cases, incentives may be different by design, custom, social norms and performance; for instance, if the design requires more time and effort from some participants than from others, or if social norms dictate differences, incentives may be different.
- 1.4.2.6. Incentives can be used in online and e-mail surveys and other forms of recruitment that typically have lower response rates.
- 1.4.2.7. Incentives should be used sparingly for participants younger than 18, as this might constitute undue inducement. In cases where inducements are used, they should be age-appropriate.
- 1.4.2.8. Participants should be allowed to decide whether they accept the incentives.
- 1.4.2.9. Incentives may be in the form of a lottery, in which case the following apply
  - i. The value of the prize must be given at the outset of the recruitment and informed consent process.
  - ii. The prize money/value must be appropriate to the risk level of the research and should not be disproportionate, as it may lead to undue inducement.
  - iii. Participation in a lottery should not be compulsory for research.
  - iv. All participants in the lottery must be told during the recruitment stage that they may participate in the lottery and have an equal chance of winning.
  - v. If participants need to provide their personal details to participate in a lottery, which may negate the principle of anonymity, the researchers should take additional steps to ensure the confidentiality of the participant's data.
  - vi. Participants must not pay any money to qualify for the lottery.

### **1.4.3. RESPONSIBILITIES**

#### **1.4.3.1. Responsibilities of researchers**

- a. If researchers decide to use any reimbursements or incentives in a study, they should justify their decision and provide sufficient information that would allow the ERC/REC to make an informed, principle-based decision, specifically by explaining the procedures proposed to execute the decision in a fair and just manner during the study.
- b. If participants are informed during the recruitment stage that reimbursements or incentives will be offered, the researcher has the ethical obligation to honour this commitment.
- c. Input from community members or other role-players may be necessary in determining the amount or procedure of reimbursements or incentives during the research planning stage.
- d. Researchers should adhere to relevant institutional policy and

national guideline documents in determining the amount and procedure of reimbursement, including – but not limited to – the National Department of Health’s South African Ethics in Health Research Guidelines: Principles, Processes and Structures (NHREC,2024).

#### **1.4.3.2. Responsibilities of ERCs**

- a. The ERC should objectively weigh the benefits of offering reimbursement or incentives against the level of risk involved, meaning that some ethical considerations may outweigh the benefits.
- b. The ERC must ensure that the reimbursements or incentives offered to participants do not constitute undue inducement.
- c. The ERC should consider relevant institutional policy and national guideline documents in their review of the amount and procedure of reimbursement, including – but not limited to – the National Department of Health’s South African Ethics in Health Research Guidelines: Principles, Processes and Structures (2024).
- d. Input from community members on the ERC or other role-players may be constructive during ERC deliberations.

## **2. ACKNOWLEDGEMENTS AND WORKS CONSULTED**

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## **ADDENDUM A5**

### **1. ONLINE RESEARCH**

#### **1.1. PREAMBLE**

- 1.1.2. Online media is expanding online research methods for personal and professional objectives. As a result, researchers welcome the wide-ranging, open opportunities for recruiting, keeping and tracing research participants for data-gathering, analysis and reporting.
- 1.1.3. Although the ethics of using human subjects in traditional research methods (also known as "offline" research methods) and social media research methods may be universal, these methods are overwhelmingly enumerated and are dependent on the conditions that require researchers to maintain responsibility, accountability and transparency when using such methods.
- 1.1.4. The tension between various research types and the trade-off between anonymity and science bound by ethical and legal frameworks should be acknowledged.
- 1.1.5. The researcher's moral integrity and ethical maturity are critically important aspects. Researchers using social media to recruit, retain or trace research participants must ensure no harm is caused.

#### **1.2. ABBREVIATIONS**

IMR	means internet-mediated research.
MOOCs	are massive open online courses.
SM	refers to social media.
SNSs	are social networking sites.
IOT	means the Internet of Things.

#### **1.3. PURPOSE**

This guide is a starting point for researchers and students interested in conducting research through online research methods to consider the complexities of navigating the public-private domain distinction online

- 1.3.1. to ensure valid, reliable and ethical use of proper online research designs;
- 1.3.2. by having ERC approval;
- 1.3.3. by using a protocol to secure informed consent where consent is deemed appropriate;
- 1.3.4. in monitoring the participants' reactions to a study;
- 1.3.5. by balancing risks and benefits appropriately;

- 1.3.6. by ensuring anonymity and confidentiality, where these are appropriate to the research design and have been guaranteed to participants; and
- 1.3.7. by embracing continuous professional development opportunities to remain current regarding their professional and ethical conduct in rapidly changing online research.

## **1.4. SCOPE**

To improve the validity, reliability and trustworthiness of research data, findings and reporting, this guideline applies to ERCs, researchers, students and postgraduate supervisors who are involved in assessing the ethicality of online research methods, such as social media (SM), internet-mediated research (IMR) and massive open online courses (MOOCs).

## **1.5. DESCRIPTION OF ONLINE RESEARCH**

- 1.5.1. Social media refers to Web-based computer-mediated internet tools and electronic platforms that individuals, professionals, teams, groups and organisations use to co-create, share or exchange information or ideas.
- 1.5.2. Content sharing through social media on computer-mediated internet tools and electronic platforms could include text, photographs, pictures and videos in a virtual and/or public domain of communities and networks.
- 1.5.3. Virtual and/or public domains of communities and networks include using platforms such as Twitter, Facebook, YouTube, Instagram, message boards, social networks, patient forums, blogs, e-mail, SMS, electronic journals, internet discussion forums and websites.
- 1.5.4. Website metadata produced by websites and analytics tools are used in online advertisements, shopping analytics and website analytics (e.g. logs, cookies, transactions).
- 1.5.5. Virtual game worlds (e.g. World of Warcraft) and virtual social worlds (e.g. Farmville) are community-based resources designed to facilitate game sharing of content and information.
- 1.5.6. The IOT refers to various devices that can communicate with one another using the internet as a common platform and transmission protocol to generate more data that can be used to answer research questions (e.g. behavioural data, transaction data, administrative data and commercially available databases).
- 1.5.7. Building up and executing a MOOC is an open real-life learning scenario for students and a whole Web community that provides a practical and conceptual e-learning experience with no theoretical audience and participation limit.
- 1.5.8. Online research combines knowledge with action and social change

- 1.5.8.1. Through social networking sites that have significant pedagogical value to enhance more traditional library-based methods to locate secondary resources;
- 1.5.8.2. within a broader context of concern related to participant privacy, surveillance and the commercial market for research data that require greater consideration of the scope and impact of the consent provided by participants at registration as part of a “trade-off” involving the exchange of data and consent for services and information; and
- 1.5.8.3. requires clarity about the role of third parties (e.g. data brokers) in offering millions of users’ or students’ educational opportunities through massive open online courses;
- 1.5.8.4. Owing to disagreements over the concept of “big data”, the following factors need to be taken into consideration by the ERC and researchers to promote moral integrity:
  - *Volume*. Traditional analytical tools are unable to handle the volume of data.
  - *Velocity*. This refers to the speed at which data are generated, distributed and collected.
  - *Variety*. Datasets are complex and include various contextual sources, such as unstructured text and media content (e.g. images, videos, logs and other data sources).
  - *Variability*. This refers to the inconsistency of data across time.
  - *Veracity*. This big data characteristic reflects consistency, accuracy, quality and trustworthiness.
  - *Complexity*. This involves consideration of how multiple databases are appropriately linked.
- 1.5.9 Data gathered through social media emerged at the beginning of the 21st century from large-scale datasets that private companies generated for various reasons.
- 1.5.10 This guide acknowledges that data collected via online research may be classified as “big data”.

## 1.6. ETHICAL OBLIGATIONS AND RESPONSIBILITIES RELATED TO SOCIAL MEDIA

- 1.6.1. When using IMR, MOOCs, SM, SNSs and/or IOT as a research strategy to recruit, retain or trace research participants, researchers may not cause any harm to participants' or organisations' confidentiality and privacy rights by sharing personal identifiers.
- 1.6.2. Using IMR, MOOCs, SM, SNSs and/or IOT as a research strategy requires researchers to adhere to the Protection of Personal Information Act 4 of 2013 regarding personal information's availability, integrity and confidentiality.

- 1.6.3. Researchers must distinguish between open data and participant privacy regulations.
- 1.6.4. Using IMR, MOOCs, SM, SNSs and/or IOT requires researchers to offer protection against disclosing personally identifiable information to anyone, as well as for ensuring anonymity, protection of privacy and de-identifying data.

## **1.7. HUMAN PARTICIPANTS' RIGHT TO AUTONOMY IN ONLINE RESEARCH**

- 1.7.1. All participants/respondents (i.e. at individual, team and/or organisation levels) that take part in research through IMR, MOOCs, SM, SNSs and/or IOT are entitled to privacy and confidentiality, which is enshrined in the Constitution of the Republic of South Africa, 1996, the Protection of Personal Information Act 4 of 2013 and the National Health Act 61 of 2003.
- 1.7.2. Researchers need to be aware that using pseudonyms on social media platforms does not guarantee anonymity because the identity and location of users can be traced through their linked accounts or IP addresses.
- 1.7.3. Disclosure of a participant/respondent's information may be done only per court order, the participant/respondent's consent and in terms of the law.
- 1.7.4. Confidential information may be shared with team members in a research project only if consent is obtained from the participant/respondent (or in the event of minors 18 years or younger, consent from their parents or legal guardian or the assent of a minor).
- 1.7.5. Researchers can also share information if it is justifiable in the public interest or if failure would harm the participant/respondent.
- 1.7.6. Researchers must obtain the written consent of the participant/respondent before publishing information (e.g. case histories and photographs) about them in media to which the public has access, irrespective of whether the researcher believes that the data could identify the participant/respondent.
- 1.7.7. If the participant/respondent in any IMR, MOOCs, SM, SNSs and/or IOT research project is a minor under the age of 18 years, the researcher will require written consent from the minor's parent or legal guardian and the minor's assent.
- 1.7.8. Researchers sharing information or data for the sake of diagnosis, treatment, education and training through social media must ensure that the recipient of the information cannot identify the respondent/participant from the research data disclosed.
- 1.7.9. Disclosure of information on social media must be kept to the minimum necessary to protect the rights of participants/respondents in any research project.
- 1.7.10. Researchers need to remain aware that there is always a risk that research data collected via IMR, MOOCs, SM, SNSs and/or IOT can be disseminated, even

in so-called “invisible” groups (i.e. people can read the information, despite the researchers’ belief that they cannot).

- 1.7.11. Researchers are the key stakeholders responsible for keeping research data collected via IMR, MOOCs, SM, SNSs and/or IOT confidential, even after the death of a participant/respondent.
- 1.7.12. The Protection of Personal Information Act 4 of 2013 prohibits the acquisition of data about an individual’s health or sex life outside the healthcare setting, and by having access to human participants’ social media profiles, researchers may find themselves privy to personal participant information that has not been shared for research consumption.

## **1.8. ONLINE RELATIONSHIP BETWEEN RESEARCHER AND HUMAN PARTICIPANTS/RESPONDENTS**

- 1.8.1. Social media can blur the boundaries of the professional researcher–participant relationship, so researchers need to be specific on mitigating any risk of harm in such a relationship.
- 1.8.2. Researchers should not interact with human participants/respondents via social media platforms. Failure to maintain strictly professional relationships with participants/respondents could result in other ethical dilemmas.
- 1.8.3. If researchers perform research in their communities, they must acknowledge that it is not easy to maintain appropriate professional boundaries, as they may receive requests on social media from human participants/respondents that they know in a non-professional capacity. In these instances, researchers should consider the circumstances and implications before accepting these requests.
- 1.8.4. Researchers receiving an inappropriate message from a human participant/respondent via social media should politely re-establish professional boundaries, explain their reasons for doing so and report such situations to their direct supervisor(s) and the relevant ERC responsible for granting the ethics approval.
- 1.8.5. It is advisable that the researcher/student keep a log of all contacts and seek advice from the ERC chairperson/supervisor if personal contact persists.
- 1.8.6. Conducting research over social media with human participants/respondents with whom the researcher has a personal relationship is discouraged. It should be done only with the utmost discretion and approval of the ERC.
- 1.8.7. If researchers report online data and findings, it must be evidence-based, scientifically sound, generic and applicable to the audience.

- 1.8.8. Researchers should separate their professional and personal social media accounts to help maintain appropriate professional boundaries.

## **1.9. PROTECTION OF UNISA RESEARCHERS' PROFESSIONAL IMAGE**

If researchers use social media in a personal capacity for research, they must acknowledge the potential consequences and provide a clear justification for conducting the research in this manner.

- 1.9.1. Researchers' online activity may bring the profession into disrepute.
- 1.9.2. Information posted online may be disseminated, whether intended or not, to a larger audience and may be taken out of context. Researchers must acknowledge that the mass media routinely monitors online activity to research stories or potential stories.
- 1.9.3. Researchers' employability and recruitment could be harmed if the content posted on social media is taken out of context; this could limit their professional development and advancement.
- 1.9.4. Researchers need to be cautious about using social media activities while conducting research. They should share activities only within the set boundaries linked to ethical applications by limiting
  - 1.9.4.1. photographs of human subjects if permission is not obtained in advance;
  - 1.9.4.2. the making of unsubstantiated negative comments about individuals or organisations participating in research;
  - 1.9.4.3. the making of comments that can be perceived as racist, sexist, homophobic or otherwise prejudiced, even if meant in jest or as satire.
- 1.9.5. Researchers may engage fully in debates on research matters via social media. However, they must be aware that the laws regarding defamation, hate speech and copyright also extend to content shared via social media.
- 1.9.6. Researchers should create a separate profile when joining social media groups that contain limited personal information for research purposes.
- 1.9.7. Researchers must refrain from posting their opinions on their colleagues' probity, skill or professional reputation on social media, lest the public loses faith in the education and research profession.
- 1.9.8. Online relationships between researchers at varying levels of training should be initiated only upon consideration of the purpose of the research relationship. For



senior staff receiving social media requests from students or human subjects (or vice versa), the goal might be mentorship, research or career advice. Regardless of the intent, the traditional boundaries of the researcher–participant/supervisor–student relationship apply even in interactions via social media. These boundaries also extend to staff and other researchers internally or externally.

- 1.9.9. If colleagues or human subjects make derogatory or inappropriate comments on social media, researchers are advised to bring it to their attention discreetly and not to engage or respond publicly on the social media platform. They should report such behaviour on social media platforms directly to the employer (i.e. direct supervisor) and/or the institution's ERC.
- 1.9.10. Researchers are advised to include disclaimers in their personal social media profiles, indicating that the views expressed therein are their own and not those of the research institution or the educational establishment they represent. However, this does not absolve the researcher from adhering to the above rules.

## **1.10. RISK-BENEFIT RATIO**

- 1.10.1. The benefits of social media research are as follows:

- 1.10.1.1. Researchers can initiate contact and invite potential participants (recruitment), maintain contact with participants by posting updates on dedicated study sites (retention) and search for participants who have been lost to follow-up (tracing) using social network sites.
- 1.10.1.2. It provides big and rich data platforms.
- 1.10.1.3. Participants have direct access to the research process.

- 1.10.2. MOOCs provide a complex and authentic teaching environment to initiate and foster self-initiated and autonomous learning from a cognitive perspective on the part of students. Students follow a constructivist learning paradigm with possible positive motivational effects regarding individual and group success in Web community settings and contexts.

- 1.10.3. The following are possible risks identified concerning the use of social media research that require researchers to explain how the risks could be mitigated:

- a. Researchers use their social media profile page to recruit, retain or attract research participants.

- b. Researchers reveal their experiences, training and attitudes regarding ethical matters of using social media as a research platform.
- c. Data might be taken out of context, used inappropriately or distort the context in which something was said, or findings might be used to defend or promote something other than what was intended, thus undermining the purpose and validity of the research.
- d. Researchers might expose themselves to judgment, ridicule or unsolicited attention on the Web, as well as to abuse or bullying.
- e. Organisations might exploit researchers, or the police or courts might use their data to prosecute divorce cases, child custody cases or lawsuits.
- f. There are ethical issues regarding anonymity and privacy.
- g. There are ethical dilemmas related to vulnerable groups (e.g. children, teenagers, individuals with mental health challenges).
- h. There are ethical dilemmas related to sensitive issues (e.g. race, gender).
- i. Ongoing debates exist about whether social media is a public or private domain.
- j. Questions about data and findings' validity, generalisability and trustworthiness are raised.
- k. High-risk research studies using IMR, MOOCs, SM, SNSs and IOT as a research strategy involving the identifiable personal information of participants or institutions could include, health research, direct marketing to minors, sharing students' private records or personal information online, publication of students' academic results and sharing their personal information with their parents or employees.
- l. Privacy breaches remain a critical concern for researchers, and social media researchers are advised to adjust their privacy settings to restrict public access.

- m. Researchers need to be aware that even with advanced security measures and end-to-end encryption, complete privacy on social media cannot be guaranteed as there is always a risk that content could be shared beyond the scope of the research study; once content has been shared online – and even if the content is subsequently deleted – the post remains on the internet permanently; and if they are uncertain about whether it is ethically and/or legally permissible to share content about a research project via social media, it is best to obtain sound advice before posting the information.
- n. It is important to be aware of the following key attributes related to the use of social media data that could have implications for validity and reliability in research:
  - i) Social media users do not necessarily represent a population; this could lead to biases and make it challenging to make inferences about the general population.
  - ii) ‘Organic’ real-time data are seldom created on social media for research purposes, which means that large amounts of data may be irrelevant or in a format that is difficult to analyse.
  - iii) Online behaviour versus offline behaviour is a continuous tension for social research purposes via social media; this requires researchers to be specific on the value-action gap in relation to the research topic.
  - iv) Private ownership of platforms and data may require researchers to access data governed by organisations that own the data. Their privacy agreements with users may prevent researchers from using such data.
  - v) Social media platforms regularly change functionality, settings, and post popularity, thus affecting how data are collected and analysed and making it difficult to ensure consistency in research across longer timeframes.

## 2. ACKNOWLEDGEMENTS AND WORKS CONSULTED

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