Modules 1-4

Research Integrity Training Modules

Updated 2025

Toronto Metropolitan University

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About the Modules

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Terminology

At Toronto Metropolitan University (TMU), "SRC" refers to the full scope of Scholarly, Research, and Creative (SRC) activities. However, for consistency with the Tri-Agency Framework: Responsible Conduct of Research and the external guidelines and resources referenced in these modules, we will use the term "research" unless directly referencing TMU's Senate Policy 118: SRC Integrity.

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Standards of research integrity are always evolving. Institutional environments continue to intensify and diversify, posing new opportunities and challenges to researchers.

In response to the dynamic nature of the research enterprise, the topic of research integrity is gaining momentum across institutions, nationally and internationally, spurring discussion about what constitutes integral research practices and how best to promote research integrity. One advancement is the implementation of institutional research integrity policies, bringing awareness to university communities about the scope and expectations of best practices in research.
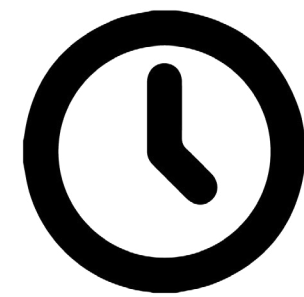
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About the Modules

There is currently a need for new resources, such as educational tools and case studies, for the research community to proactively engage with the topic of research integrity and responsible conduct of research. This training guide sets out to inform the university's research community of best practices in research and prompt reflection on the topic of research integrity.
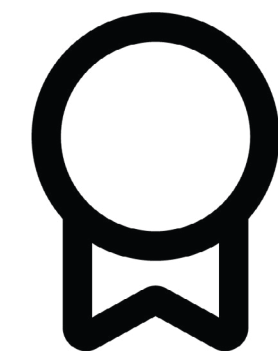
Learning outcomes

- Recall the values and principles of research integrity

- Understand the key responsibilities of researchers

- Identify the challenges of research integrity

- Reflect on strategies for dealing with issues of research integrity

Next

The **four modules** in this training guide are self-paced and can be completed according to your own time and schedule.

If you require a **Certificate of Completion** please complete this module through the D2L platform. Learn more on our Research Integrity eLearning page.

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Introduction

Toronto Metropolitan University

Research integrity is the behaviour expected of anyone who conducts or supports research activities throughout the life cycle of a research project.[1]

Research integrity is commonly defined in opposition to research misconduct, where misconduct refers to unacceptable behaviours such as plagiarism, the falsification of data, and the fabrication of data.[2] Research integrity encompasses how a researcher leads with integrity.

1. Government of Canada (2021)
2. Hickling Arthurs Low (2009)

Next

Research integrity can also be defined in relation to research ethics. The two key concepts[3] can be broadly defined as follows:

Research ethics: Doing research with responsibility, particularly towards participants, colleagues, employers, funders, and society.

Research integrity: Doing research in ways that underpin confidence in the results, the researchers, and the research community.

The university's Policy 51: Ethical Conduct for Research Involving Human Participants ensures all members of the university comply with federal, provincial, and municipal legislation regarding research activities. If you have any questions or concerns relating to the ethics of your research endeavour, it is best to contact the Research Ethics Board (REB) at the university. The REB is responsible for approving all research projects involving humans to ensure the protection of all research participants.

3. Carling, J. (2019)

Next

The changing nature of research activity and its fast-paced environment have renewed attention to the topic of research integrity over the last decade. Research is an increasingly collaborative endeavour, interdisciplinary, and global in scope. The expectations for rigorous, sound, scientific evidence are heightened in this age of information where technological advances permit new ways to conduct and disseminate research and results.

Emerging in this landscape are unique regulatory, ethical, and cultural challenges, such as different norms and values that may shift the purpose and use of research, or collaboration among diverse communities that may pose difficulties to the project design or implementation.[4] In response to the increasingly global research climate, there are efforts to understand the shared values of research integrity and to standardize research integrity from country to country.[5]

4. Nichols-Casebolt, A. (2012)
5. Rossouw, T.M., van Zyl, C. and Pope, A. (2014)

Emerging in this landscape are unique regulatory, ethical, and cultural challenges

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The urgency to better promote research integrity on a global scale is reflected in the creation of the bi-annual World Conference on Research Integrity (WCRI) and, more recently, the Hong Kong Principles, a guide for assessing researchers developed at the 6th WCRI.[6] The convening of stakeholders at national and international conferences reveals the complexity of the topic, as what constitutes integral research practices, policies, and formal procedures continues to be debated. Scholars, for example, cite the intense research environment, with unprecedented productivity pressures, as a contributing factor to misconduct in research.[7]

These training modules seek to inform individuals on their roles and responsibilities as they relate to ethical conduct in research practices at the university. Informed by the university's Scholarly, Research, and Creative (SRC) Integrity Policy 118 and the Tri-Agency Framework: Responsible Conduct of Research (2021), which ensures compliance with national standards of research integrity, this training module will detail positive research practices with the aim to support a strengthened culture of research integrity at the university. This means supporting faculty, graduate students, and all research personnel in their research environments by advancing the values of research integrity.

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6. Moher, D., et al. (2020)
7. Hickling Arthurs Low (2009)

Definitions

Definitions drawn from Council of Canadian Academies (2010), Rossouw, T.M., van Zyl, C. and Pope, A. (2014), and Toronto Metropolitan University (2025).

Accountability
Being responsible and answerable for one's actions

Conflict of interest
Refers to an apparent or perceived conflict between the interests related to research activity and other interests

Fairness
Being impartial and using sound judgement, free of prejudice and favouritism

Honesty
Being straightforward, and free of fraud and deception

Openness
Being transparent in process and practice, as characterized by visibility or accessibility of information

Research cycle
A research cycle involves all of the processes of a research project from idea to dissemination, including the project's goal, methods for data collection, and plans for communicating results

Research integrity
Refers to the adherence to ethical principles and professional standards throughout the entire research cycle

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Research misconduct

Refers to unacceptable behaviours such as plagiarism, the falsification of data, and the fabrication of data

Rigour

Scholarly and scientific attention to detail in proposing and performing research; in recording, analyzing, and interpreting data; and in reporting and publishing accurate data and findings
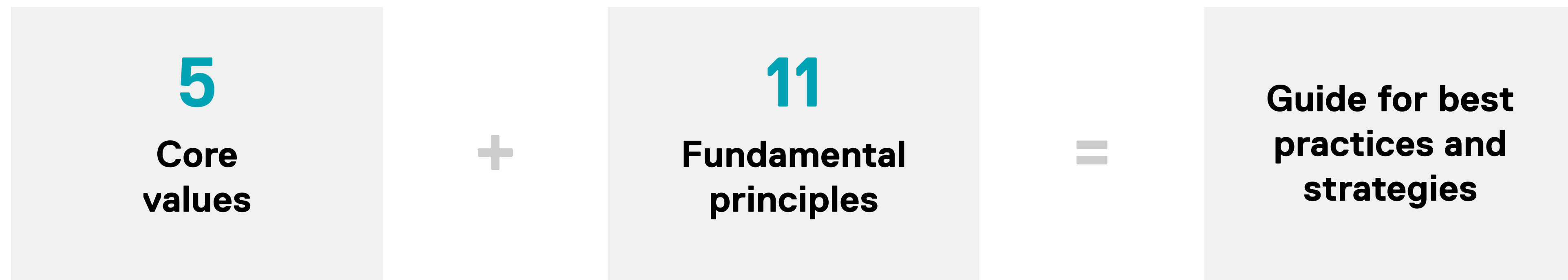
Trust

Being reliable, as a person or institution, through character and action

Principles of Research Integrity

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In 2010, an expert panel on research integrity was formed to assess and provide guidance on research integrity in Canada.

Emerging from the research conducted by the Council of Canadian Academies is a set of **five core values**: honesty, fairness, trust, accountability, and openness. Additionally, **11 fundamental principles**[8] were detailed to describe how to enact and pursue research with integrity, such as knowing one's level of competence and limitations and acting accordingly. These principles are reflected throughout the modules and can serve as a guide of best practices and strategies for navigating issues of research integrity.

5 **Core** **values**	**+**	**11** **Fundamental** **principles**	**=**	**Guide for best** **practices and** **strategies**

8. Council of Canadian Academies (2010)

Next

The following 11 principles will be featured in each training module to highlight their relevance to particular research integrity matters.

1

Principle 1

Conduct research in an honest search for knowledge. A fair, open, and reliable approach to all activities supports, funds, or otherwise encourages research.

Honesty   *Fairness*   *Trust*   *Openness*

Next

2

Principle 2

Foster an environment of research integrity, accountability, and public trust.

Individuals and organizations at all levels should take responsibility for creating, implementing, maintaining, and complying with policies and practices designed to ensure accountability and the maintenance of public trust.

Trust   *Accountability*

Next

3

Principle 3

Know your level of competence and your limitations, and act accordingly. Ensure you have the appropriate expertise and experience to participate in a given area of research or research administration.

Honesty   *Trust*   *Accountability*

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Principle 4

Avoid conflicts of interest, or if they cannot be avoided, address them in an ethical manner. Personal and institutional conflicts of interest, or the appearance of conflict of interest, should be avoided. When unavoidable, each instance should be identified, disclosed, carefully examined, and managed in such a way as to avoid any corruption of the research process.

Trust   *Accountability*   *Openness*

Next

5

Principle 5

Use research funds responsibly. Individuals and organizations at all levels should ensure the responsible allocation and management of research funds in accordance with sound academic and financial principles.
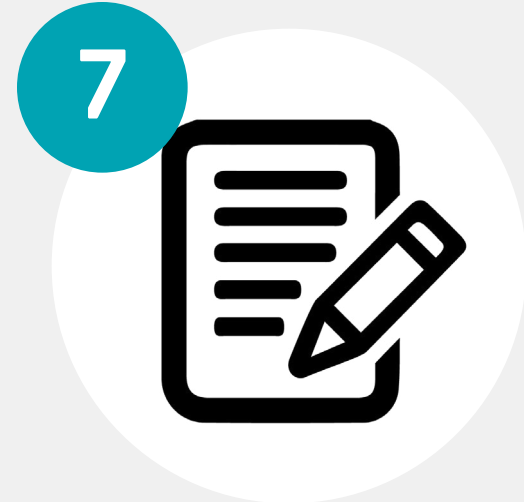
Honesty   *Accountability*

Next

Principle 6

Review the work of others with integrity. Individuals and organizations should engage in, organize, peer review, and evaluate the work of others in a manner that reflects the highest scholarly, professional, and scientific standards of fairness and confidentiality.

Fairness   *Trust*

Next

Principle 7

Report research in a responsible and timely fashion. Publications, including clear statements of data and methodology, as well as research activities and research results, should not be unduly delayed or intentionally withheld. These considerations should be configured within each discipline's own time frame.

Trust   *Openness*

Next
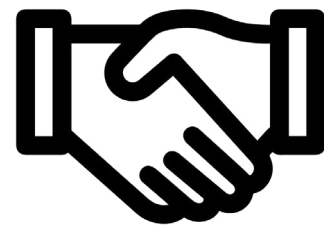
8

Principle 8

Treat data with scholarly rigour. The highest levels of exactitude should be ensured in proposing, performing, recording, analyzing, interpreting, reporting, publishing, and archiving research data and findings. The appropriate authorities, as mandated by applicable standards or regulations, should retain a copy of research records.

Honesty   *Accountability*

Next

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Principle 9

Treat everyone involved with research fairly and with respect. All individuals and institutions directly affected or involved in research, including human subjects and animals, should be treated fairly and with respect. Relevant regulations and applicable Tri-Agency and institutional policies should be followed and guided by common principles and values.

Fairness   *Trust*

Next

Principle 10

Acknowledge all contributors and contributions in research. All contributors and contributions to research and research results, including financial contributions, should be acknowledged fairly and accurately whenever research is communicated.

Fairness *Accountability* *Openness*

Next

Principle 11

Engage in the responsible training of researchers. Research investigators, particularly new scholars, should have access to education, mentoring, and support to develop and maintain the skills and capacities required for conducting and managing research in accordance with relevant scholarly and ethical standards. An individual's level of responsibility should be commensurate with their competence and experience.

Fairness   *Trust*

Next

About the Modules

These four e-learning modules will direct the research community on:

- Module 1: Study Formulation and Research Design

- Module 2: Research Conduct and Analysis

- Module 3: Research Dissemination and Publishing

- Module 4: Financial Reporting and Grant Management

Each module is elaborated from and informed by the university's Policy 118 and the Tri-Agency Framework: Responsible Conduct of Research (2021). The modules will address the topic of research integrity to detail how it operates within each stage of the research process. A case study and a quiz will accompany each module to prompt further learning on the topic. In completing each module, users will have considered how to lead with integrity while engaging in research activities.

Next

Module 1:
Study Formulation and Research Design

Toronto Metropolitan University

Next

Research integrity is foundational at every stage of the research process. This begins with study formulation and design.

The beginning stages of research may entail:

- Conceptualizing a research project

- Conducting preliminary background research

- Identifying research methods

- Establishing research partners (if required)

- Securing funding (if required)

When making decisions about the many variables involved in this stage, including one's research questions, goals, and available resources, it is the responsibility of all individuals in the research community to ensure that all research activities are undertaken "with independence and impartiality, free of any undue influence or conflict of interest" (Policy 118, Article 5.3).

Next

Leading with Integrity

- It is critical to lead with honesty and treat all research collaborators with respect.

- At the onset of a research project, it is critical for all members of the research team to evaluate their strengths and weaknesses, and to identify a clear role in the project. Specific training and mentoring may be required to orient new and existing team members to a research project.

- At the inauguration of a project, supervisors and research leads have an important role to play in ensuring guidelines are followed and team members are adequately supported.

- Researchers are responsible for obtaining any required approvals for research involving human participants, human biological materials, and animals. Additional guidance may be required concerning research involving Indigenous Peoples. See the Additional Resources page.

- Ensure from the planning stage that there is a clear research data management plan, including the secure storage of all data. For more information, see the services and supports for research data management available at TMU Libraries.

- All information included in a grant application must be true, complete, and accurate.

Next

Case Study

Allegation:

Plagiarism in a grant application[9]

Findings:

R, a faculty member, submitted an application for funding that contained a sufficient amount of uncited text from 10 publications by other authors. However, most of the publications were included in the reference list. A Research Fellow in R's lab had inserted the uncited texts. The Fellow admitted their errors and confirmed the errors were made without R's knowledge. However, as a Principal Investigator, R failed in their duty to supervise the Fellow. During the investigation, R directed the Fellow to attend a course on research practices and R acquired plagiarism detection software.

Breach:

Plagiarism
(Tri-Agency Framework: Responsible Conduct of Research, Article 3.1.1.d)

9. Government of Canada (2025), File 12

Next

Institutional disposition:

- Directed R to submit grant applications, with evidence of software screening, to an administrative official at the Institution, for approval, for three years.

- Placed a letter on R's file for three years stating that any further incident would result in the revocation of R's privileges to submit grants.

- Prohibited the Fellow from submitting grants on their own for five years.

- Placed a letter on the Fellow's file for three years stating that any further incident would result in dismissal and developed case-based training learning modules for faculty on issues such as authorship, publication practices, and plagiarism.

Agency recourse:

- Issued a letter of reprimand to R reminding them that, as the Fellow's supervisor, R had a responsibility to review the Fellow's work.

- Declared the Fellow ineligible to apply for Agency funding for five years.

- Issued a letter to the Institution expressing concern with the lack of supervision associated with this file and stressing the importance of collective responsibility, not only of researchers and students, but also of institutions in the responsible conduct of research.

Next

Reflection Questions

1. Have you ever been unsure about your or a team member's use of citations in a publication or grant application?

2. Have you ever had difficulty upholding high research standards when working with a research collaborator?

3. What are your integrity review processes when working with students, fellows, or collaborators?

Next

Test for Understanding

Begin

You are submitting a proposal for a grant to the same funding body that funded your last research project. This proposal builds upon your latest research findings. It is reasonable to incorporate your published research without citation because you are the lead of both the research paper and project, and the funding body is already familiar with your work.

True **or** False

❌ Incorrect

"True" is incorrect.

Try again

✔ Correct

"False" is correct.

Incorporating your published research without citation would be a breach of research integrity, directly relating to Breach 6.4 in Policy 118. Accurate referencing is a key responsibility of a researcher as outlined in the Tri-Agency Framework on the Responsible Conduct of Research (2021). Accurate referencing refers to "referencing and, where applicable, obtaining permission for the use of all published and unpublished work, including theories, concepts, data, source material, methodologies, findings, graphs and images."

Self-plagiarism: Publishing your own previously published research results, ideas, opinions or theories as new without proper citation or referencing of the prior work.

Advance >

You may list collaborators and partners in a new grant application without their knowledge if you have worked with them before.

True	**or**	False

❌ Incorrect

'True' is incorrect.

Try again

✔ Correct

'False' is correct.

Listing collaborators and partners in a new grant application without their knowledge would be a breach of research integrity, directly relating to Breach 6.17.3 in Policy 118 and section 3.1.2 Misrepresentation in an Agency Application or Related Document in the Tri-Agency Framework on the Responsible Conduct of Research (2021).

Misrepresentation in a grant application or related document including: Listing of co-applicants, collaborators or partners without their agreement.

Advance >

Module 2:
Research Conduct and Analysis

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Next

Research integrity is reflected in the individual's conduct throughout the research project, relating to one's orientation, attitude, and behaviours that they apply to the management of a research project.

Integrity during this stage of research will be imperative to the management of students and staff throughout the data collection process, as well as ensuring the confidentiality and privacy of all participants involved.

Data analysis entails the application of a logical technique to describe and evaluate data. This iterative process emphasizes transparency and accuracy to ensure the methods applied to data collection and analysis are replicable. The analytical stages of research may present challenges to researchers as they grapple with the presentation of data or perhaps data that is missing, includes outliers, or is altered.

Next

Leading with Integrity

- Research rigour is required to maintain transparency and accuracy throughout the data collection process.

- A strict ethics of care should be considered in interactions with research participants and collaborators. All research participants and collaborators should be treated with the utmost respect.

- Conducting research requires attention to detail and effective communication among research team members to ensure the progress of a project.

- The adoption of set practices to maintain quality assurance will allow researchers to share data and findings in a timely manner.

- Scholarly rigour and honesty must be applied to ensure data is represented honestly.

- For example, record keeping is a key responsibility of a researcher as outlined in the Tri-Agency Framework on the Responsible Conduct of Research (2021). Record keeping means "keeping complete and accurate records of data, methodologies and findings, including graphs and images, in accordance with the applicable funding agreement, institutional policies, laws, regulations, and professional or disciplinary standards in a manner that will allow verification or replication of the work by others".

Next

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Case Study

Allegation:

Data fabrication in a PhD dissertation[10]

Findings:

R, a doctoral student, deliberately falsified the identity of the majority of the participants in their research and then fabricated the resulting participant data. R submitted an article for publication based on the falsified data. R misled the project's research assistants and asked them to make false statements to R's faculty supervisor. R withdrew the manuscript submitted for publication.

Breach:

Fabrication (Tri-Agency Framework: Responsible Conduct of Research, Article 3.1.1.a)

Falsification (Tri-Agency Framework: Responsible Conduct of Research, Article 3.1.1.b)

10. Government of Canada (2025), File 44

Next

Institutional disposition:

- Expelled R, with no possibility of re-admission.

Agency recourse:

- Terminated R's Agency scholarship award.

- Required R to reimburse Agency funding already disbursed.

- Declared R permanently ineligible to apply for Agency funding.

- Required the Institution to reimburse any funds remaining in R's scholarship award account.

Next

Reflection Questions

1. What are some review processes you have in place when developing a research project?

2. Have you ever had a conflict with a research partner at a different institution, either nationally or globally, when designing a research study? How was this resolved?

3. Can you describe the communication best practices you use to liaise with research collaborators?

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Test for Understanding

Begin

You have been interviewing a participant over the course of six months and have come to know them very well. You realize that one recording was inadvertently corrupted. You decide to elaborate on some of the details the participant has shared with you in the interview transcript because you're quite confident you know what they would say. Is this an example of:

A   Fabrication and falsification

B   Self-plagiarism

C   Plagiarism

D   None of the above

✓ **Correct**

A "Fabrication and falsification" is correct.

Elaborating on some of the details the participant has shared with you in the interview transcript is an example of Breach 6.1 and 6.2 in Policy 118:

Fabrication: Making up data, source material, methodologies or findings, including graphs and images.

Falsification: Manipulating, changing, or omitting data, source material, methodologies or findings, including graphs and images, without appropriate acknowledgement, such that the research record is not accurately represented.

Advance >

❌ Incorrect

B "Self-plagiarism" is incorrect.

Self-plagiarism: Publishing your own previously published research results, ideas, opinions or theories as new without proper citation or referencing of the prior work.

Try again

❌ Incorrect

C "Plagiarism" is incorrect.

Plagiarism: Falsely claiming someone else's words, work, or ideas as one's own.

Plagiarism: Presenting and using another's published or unpublished work, including theories, concepts, data, source material, methodologies or findings, including graphs and images, as one's own, without appropriate referencing and, if required, without permission.

Try again

❌ Incorrect

D "None of the above" is incorrect.

Try again

You just had an unpleasant exchange with an interview participant. Because you thought the interview went poorly, you decide to omit the interview transcript from the dataset. Is this an example of:

A   Fabrication

B   Falsification

C   Plagiarism

D   None of the above

❌ Incorrect

A "Fabrication" is incorrect.

Fabrication: Making up data, source material, methodologies, or findings, including graphs and images.

Try again

✔ **Correct**

B "Falsification" is correct.

Omitting the interview transcript from the dataset is an example of Breach 6.2 in Policy 118:

Falsification: Manipulating, changing, or omitting data, source material, methodologies or findings, including graphs and images, without appropriate acknowledgement, such that the research record is not accurately represented.

Advance >

❌ **Incorrect**

C "Plagiarism" is incorrect.

Plagiarism: Presenting and using another's published or unpublished work, including theories, concepts, data, source material, methodologies, or findings, including graphs and images, as one's own, without appropriate referencing and, if required, without permission.

Try again

❌ **Incorrect**

D "None of the above" is incorrect.

Try again

Module 3:
Research Dissemination and Publishing

Toronto Metropolitan University

The publication stage of research entails the preparation and presentation of research findings.

This stage of research is guided by the principles of openness and transparency as publishing valid research is a critical step to maintain and uphold the public's trust in the scientific community.

Research integrity is of importance in this phase when considering how to protect your data, how to acknowledge all authors and collaborators, and how to portray your research honestly.

Next

Leading with Integrity

- Store data securely. Protect research data by ensuring that only research team members have access to the data.

- Disseminating research findings may be a collaborative endeavour. To avoid conflict, detail the roles, rights, and responsibilities amongst all contributors prior to the initiation of the project.

- Ensure that all authorship or inventorship is duly acknowledged.

- Apply rigour to the referencing and citing of other published work.

- In evaluating the platform and type of engagement that will have the most reach and impact, be cautious of predatory journals. TMU Libraries provides more information on predatory journals in its guide to selecting journals for publication.

- Consider your role and responsibilities for sharing results with research participants and relevant communities.

Next

Case Study

Allegation:

Invalid experimental results published in a journal article[11]

Findings:

A publication by R, a faculty member, contained two errors: an inaccurate legend in a figure and a calculation error. An investigation concluded that the errors were a result of inattention, not dishonesty or intent to deceive, and the errors did not affect the results of the research.

Breach:

Lack of rigour

(Tri-Agency Framework: Responsible Conduct of Research, Article 3.1.1)

11. Government of Canada (2025), File 17

Next

Institutional disposition required R to:

- Remind all members of their team of the importance of rigorous and objective use of research results which, if preliminary or incomplete, should be presented as such.

- Meet with all individuals in their lab regarding research practices.

- Supervise more closely the activities in their lab and ensure that research results are verified.

- Given that the errors in the article were minor and had no impact on the validity of the results, the Institution did not require a retraction of the article.

Agency recourse:

- Issued a letter of reprimand to R regarding their supervisory responsibilities.

- Required R to correct the research record, either through a corrigendum or retraction.

- Issued a letter of reprimand to a doctoral student in R's lab, who was involved in the occurrence of the errors, for a lack of rigour.

Next

Reflection Questions

1. How do you define research rigour in the data collection, monitoring, and reporting processes?

2. As the research lead, what practices do you adopt to ensure rigour in research amongst all team members?

3. As a member of a research team, what training have you received with regard to practices of research rigour?

4. How do you define an undergraduate/graduate student's role in an research project? How do you ascertain research rigour in the process?

Next

Test for Understanding

Begin

Before you submit your final manuscript for publication, you decide at the last minute to list a part-time research consultant as a co-author. The research consultant is unaware of your additions to the manuscript and has not read the final version. This is a breach of research integrity.

True **or** False

✓ Correct

"True" is correct.

Deciding at the last minute to list a part-time research consultant as a co-author is a breach of research integrity. This may lead to a misleading publication (Breach 6.15 of Policy 118) as there was a failure to obtain consent from the co-author before naming them, and the co-author may not have reviewed the final draft of the manuscript.

Advance >

❌ Incorrect

"False" is incorrect.

Try again

Your research team is under a lot of pressure and the funder is expecting your research report in just a few days. Your supervisor is tasked with many other responsibilities and advises you, the graduate student, to finish the report by any means necessary. Could the supervisor's request lead to a breach of research integrity?

Yes   **or**   No

✔ **Correct**

"Yes" is correct.

Finishing the report by any means necessary may lead to a breach of research integrity. Your supervisor may be contributing to a breach (Policy 118, Breach 6.16) which entails:

Encouraging, directing, or advising another researcher to commit a breach (e.g., a supervisor telling a graduate student to falsify data) or otherwise creating an environment that promotes a breach by another.

This also relates to Section 2.7 'Appropriate supervision and training in the conduct of research' from the Tri-Agency Framework: Responsible Conduct of Research (2021), which states that "All researchers are responsible for familiarizing themselves with principles of responsible conduct of research and for the application of these principles to foster a positive and constructive research-working environment. Researchers with oversight roles should provide appropriate supervision of, and training to, their trainees and research personnel in responsible conduct of research."

Advance >

❌ Incorrect

"No" is incorrect.

Try again

Module 4:
Financial Reporting and Grant Management

Toronto Metropolitan University

Next

To ensure accountability, individuals and institutions have a responsibility to report on all research activity and to use research funds responsibly.

It is critical that principal investigators ensure compliance with the standards of granting agencies. Due diligence is required when distributing research funds for various resources and equipment, as the funds will need to be reported and individuals will have to demonstrate the use of funds in support of research activities only.

Next

Leading with Integrity

- Make all members of the research team aware of the guidelines established in the grant application.

- Lead with transparency and honesty in reporting research funding.

- All conflicts of interest that may affect a decision about a specific application or request for a grant or award must be disclosed in writing to the relevant funding sponsor by the applicant.

- Disclose and/or address material conflicts of interest to the university, sponsors, colleagues, or journal editors when submitting a grant, protocol, manuscript, or when asked to undertake a review of research grant applications, manuscripts, or to test or distribute products.[12]

12. TMU Policy 118, Breach 6.14

Next

Case Study

Allegation:

Mismanagement of grant funds[13]

Findings:

R charged a significant amount of ineligible expenses to their grant account. R was negligent in the management of research expenses, failed to keep proper receipts, and had not made themself familiar with the Institution's or the Agency's financial procedures. However, R had not intended to breach the financial policies. As well, they cooperated with the investigation, expressed remorse, and were willing to rectify the problem.

Breach:

Mismanagement of Agency grant or award funds
(Tri-Agency Framework: Responsible Conduct of Research, Article 3.1.3)

13. Government of Canada (2025), File 59

Next

Institutional disposition:

- Reimbursed the Agency and instituted a repayment plan with R.

- Suspended R for one month without pay.

- Implemented additional financial controls.

Agency recourse:

- Terminated R's grant.

- Declared R ineligible to hold or apply for funding, or to participate in Agency peer-review processes, both for one year.

- The Agency informed the Institution that its inability to identify and rectify the issue within R's department over a period of several years fell below the standard expected of an eligible institution, but recognized the actions that the Institution had taken to ensure such an occurrence does not recur.

Next

Reflection Questions

1. Have you ever been unsure about eligible expenses attached to a grant?

2. Have you ever received training on how to manage grant funds?

3. What are the biggest challenges in managing grant funds?

Next

Test for Understanding

Begin

A conflict of interest must be disclosed when submitting:

A   A grant application

B   A research protocol

C   A manuscript

D   All of the above

❌ Incorrect

A "A grant application" is partially correct.

A mismanagement of conflict of interest is a breach of research integrity at every stage of the research process, including the submission of a grant application.

Try again

❌ Incorrect

B "A research protocol" is partially correct.

A mismanagement of conflict of interest is a breach of research integrity at every stage of the research process, including the submission of a research protocol.

Try again

❌ Incorrect

C "A manuscript" is partially correct.

A mismanagement of conflict of interest is a breach of research integrity at every stage of the research process, including the submission of a manuscript.

Try again

✓ **Correct**

D "All of the above" is correct.

A mismanagement of conflict of interest is a breach of research integrity at every stage of the research process, including grant application and its financial management. This is Breach 6.14 of Policy 118:

Failure to disclose and/or address material conflicts of interest to the university, sponsors, colleagues, or journal editors when submitting a grant, protocol, manuscript, or when asked to undertake a review of research grant applications, manuscripts, or to test or distribute products.

Advance >

Costs related to research dissemination, including web development and the translation of material, are an eligible expense.

| True | **or** | False |

✓ Correct

"True" is correct.

A range of activities related to research dissemination may be considered an eligible expense. For a list of all eligible expenses, expense categories, and explanations, please refer to the Tri-Agency Financial Administration Guide and the university's web page on Eligible Research Expenses.

Advance >

❌ Incorrect

"False" is incorrect.

Try again

Additional Resources

This module supports the promotion and information associated with the Tri-Agency Framework: Responsible Conduct of Research (2021) and Policy 118: Scholarly, Research and Creative (SRC) Integrity Policy.

For clarification of any terms, please see the glossary outlined by the Tri-Agency Framework on the Responsible Conduct of Research and section 4.0 in the university's Policy 118.

Supplemental readings:

- Honesty, Accountability and Trust: Fostering Research in Canada
- Toolkit for Responsible Conduct in Research Creation
- The Hong Kong Principles for Assessing Researchers: Fostering Research Integrity
- What is a Predatory Journal?
- Reference Guide for Research Integrity

Next

Research involving Indigenous communities:

- Guidelines for Research Involving Indigenous Peoples in Canada
- Chapter 9: Research Involving the First Nations, Inuit and Métis Peoples of Canada TCPS2 (2022)
- Canadian Institutes of Health Research (CIHR), Indigenous Health Research
- The First Nations Principles of OCAP

Supervisor responsibilities:

- Toronto Metropolitan University Graduate Supervision Guidelines (2023)
- Tri-Agency Framework: Responsible Conduct of Research (2021) Section 2

Student responsibilities:

- REB Student Bill of Research Rights and Responsibilities: Undergraduate Students as Researchers

Next

References

Carling, J. (2019) Research Ethics and Research Integrity. MIGNEX Handbook Chapter: 4. Oslo: PRIO.

Council of Canadian Academies (2010). Honesty, Accountability and Trust: Fostering Research Integrity in Canada / The Expert Panel on Research Integrity. Ottawa, ON. The Council of Canadian Academies.

Government of Canada (2021). Tri-Agency Framework: Responsible Conduct of Research.

Government of Canada (2025). Responsible Conduct of Research File Summaries.

Hickling Arthurs Low (2009). The State of Research Integrity and Misconduct Policies in Canada. HAL Innovation Policy Economics.

Moher, D., Bouter, L., Kleinert, S., Glasziou, P., Sham, M.H., Barbour, V., Coriat, A.-M., Foeger, N. and Dirnagl, U. (2020). The Hong Kong Principles for Assessing Researchers: Fostering Research Integrity. PLOS Biology, 18(7), p.e3000737.

Nichols-Casebolt, A. (2012). Research Integrity and Responsible Conduct of Research. New York: Oxford University Press.

Rossouw, T.M., van Zyl, C. and Pope, A. (2014). Responsible Conduct of Research: Global Trends, Local Opportunities. South African Journal of Science, 110(1/2), pp.1–6.

Toronto Metropolitan University (2025). Policy 118: Scholarly, Research and Creative Activity (SRC) Integrity Policy.

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Module Complete

☑ **Thank you** for reviewing the university's Research Integrity Training Modules 1-4.

If you require a **Certificate of Completion**, please complete the module through the D2L platform.

Research Integrity eLearning resources