# 研究倫理入門

# Introduction to Research Ethics for Young Students



Research Ethics 2023-2024

Mentor and Modulator: Prof. Mitsuho Ikeda,

Please call me "MITZUBIXI sensei" (みつびし・せんせい)

schedule: From Feb. 02 to Feb. 06, 2024.

Graduate School of International Cultural Studies, Tohoku University

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Feb. 12 (Wed.) 08:50-14:30 Program 01, Program 02, Program 03

Feb. 13 (Thu.) 08:50-14:30 Program 04, Program 05, Program 06, Program 07

Feb. 14 (Fri.) 08:50-14:30 Program 08, Program 09, Program 10, Program 11

Feb. 15 (Sat.) 08:50-14:30 Program 12, Program 13, Program 14, Program 15

Feb. 16 (Sun.) 08:50-14:30 Program 16, Program 17, Program 18, & Presentation Time for all participants.

## Program 01

Nulla. Ice-Breaking [introduceyourself.pdf]

## Ice-Breaking for my class

My Name is :	Please call me :
I'm from :	
My Research The	eme is :
	THEORIES
	MY RESEARCH
METHODOLOGIES	RESEARCH SUBJECT

I am form \_\_\_\_\_\_ My Reseach theme is \_\_\_\_\_\_

Research Subject\_\_\_\_\_; Theories\_\_\_\_\_; Methodology\_\_\_\_\_



Describe the ethical issue[s] that you would confront with when you advance in your research and/or the ethical issue that you are interested in, in your academic discipline.



I. Let's make your dialogic workshop more fun! or Our workshop's time and logic structure

Introduction to Organizing Workshop in Your Class

- 1. What is workshop?
- 2. Two main reasonings for having our problem-based workshop
- 3. Time and logic Structure of our Workshop
- 1. What is workshop?

The Collins Dictionary says, Workshop is "a period of discussion or practical work on a particular subject in which a group of people share their knowledge or experience." -Workshop.

2. Three main reasonings for having our problem-based workshop

"Problem-based learning (PBL) is a student-centered pedagogy in which students learn about a subject through the experience of solving an open-ended problem found in trigger material. The PBL process does not focus on problem solving with a defined solution, but it allows for the development of other desirable skills and attributes. This includes knowledge acquisition, enhanced group collaboration and communication. The PBL process was developed for medical education and has since been broadened in applications for other programs of learning. The process allows for learners to develop skills used for their future practice. It enhances critical appraisal, literature retrieval and encourages ongoing learning within a team environment. The PBL tutorial process often involves working in small groups of learners. Each student takes on a role within the group that may be formal or informal and the role often alternates. It is focused on the student's reflection and reasoning to construct their own learning. The Maastricht seven-jump process involves clarifying terms, defining problem(s), brainstorming, structuring and hypothesis, learning objectives, independent study and synthesizing. In short, it is identifying what they already know, what they need to know, and how and where to access new information that may lead to the resolution of the problem. The role of the tutor is to facilitate learning by supporting, guiding, and monitoring the learning process. The tutor aims to build students' confidence when addressing problems, while also expanding their understanding. This process is based on constructivism. PBL represents a paradigm shift from traditional teaching and learning philosophy, which is more often lecture-based. The constructs for teaching PBL are very different from traditional classroom or lecture teaching and often require more preparation time and resources to support small group learning."- Problem-based learning.



3. Time and logic Structure of our Workshop

Time and logic Structure of our Workshop. Our workshop is constituted from seven steps, including introductory "Ice Breaking" time (IB time); The main body of our Problem Based Workshop is constructed from cyclic six sections; (i)Giving short lecture by teacher, (ii)Assignment for your group, (iii) Discussion within a group, (iv) Reporting back, (v)General discussion, and (vi) Concluding remarks, and Coffee or Tea Break.

#### II. The three axioms for the modern research ethics.

Research ethics means that when research activities have some social nature and their results have an impact on society, the society should give some norms to its members, especially to the scientific community, and control them appropriately. Normally, thinking and research are the unique and free activities of the researcher, and it seems unreasonable that they should be controlled in some way from the outside (see regulatory science.). However, it is always possible for research to cause harm to other members of society, regardless of the quantity, number, or variety of its quality. Since research ethics is an intervention against such risks, some kind of future prediction and "harm prevention" based on such prediction are necessary (see harm principle). Furthermore, when research advocates the social mission of "making human-being happy" and is approved by society and receives research funding and moral support, it is inevitable that the researchers themselves or their research groups formulate and comply with research ethics norms and demonstrate their stance to society.

When I lecture on Research Ethics for young and old friends, I will first confirm our three axioms.

When we conduct any kind of research, we need profess at least three objectives before both our colleagues and public;

1. We need our general trust between researchers,

2. We should maintain norms that our society has given as professional sincerity, and

3. Through our daily activity, we have been expected to conduct righteously for the public.

These objectives are same as norms and/or rules, because the social problems will be occurred without these requisiteness.

+1. We will lost trust between our colleagues,

+2. Professionals may ordinarily misconduct, and

+3. Through private profit pursuit, we will forget the presence of the public.

Then what kinds of social problems will be come with these insincerity.

++1. Not only that we researchers distrust each other, but that society also might distrust us,

++2. Society will lost the capacities against misconducts by researchers, and

++3. The victims will be produced by researchers" misconducts, and also the stereotypes of evil scientists will be distributed.

That is the reason why I would give you lectures on Research Ethics in English in my class.

	There are various types of scientific misconduct(in Japanese)			
	1) Falsification, KAIZAN in Japanese (改竄)			
2) Fabrication, NETSUZO in Japanese (捏造)				
3) Plagiarism, HYOSETSU in Japanese (剽窃)				
4) Data theft, DETA NO SETTOU (データの窃盗)				
5) Gift authorship, MEIGI-GASHI in Japanese (名義貸し)				
6) Honorary authorship, MIIYO-CHOSHA in Japanese (名誉著者)				
	and othes.			

The US Office of Research Integrity and other institutions define these words of misconducts mentioned below.

#### 1) Falsification, KAIZAN in Japanese (改竄)

Falsification is manipulating research materials, equipment, or processes, or changing or omitting data or results such that the research is not accurately represented in the research record.

## 2) Fabrication, NETSUZO in Japanese (捏造)

Fabrication is making up data or results and recording or reporting them.

## 3) Plagiarism, HYOSETSU in Japanese (剽窃)

Plagiarism is the appropriation of another person's ideas, processes, results, or words without giving appropriate credit

## 4) Data theft, DETA NO SETTOU (データの窃盗)

Data theft is the act of stealing information stored on computers, servers, or other devices from an unknowing victim with the intent to compromise privacy or obtain confidential information.

## 5) Gift authorship, MEIGI-GASHI in Japanese (名義貸し)

Gift authorship' is one of the most common kinds of unethical behavior seen in academic publishing. In this practice, an author is added to a paper when they have not actually made a contribution to the work, perhaps to reward a collaborator, return a favor, or for some other gain.

### 6) Honorary authorship, MIIYO-CHOSHA in Japanese (名誉著者)

Honorary authorship, also known as guest authorship, occurs when a person is listed as an author who

has not provided any significant assistance to the study.

The explanation of this page is over. Thank a lot to participate this lesson.

## Bibliography

- On being a scientist: a guide to responsible conduct in research / Committee on Science, Engineering, and Public Policy, National Academy of Sciences, National Academy of Engineering, and Institute of Medicine of the National Academies, National Academies Press, 2009

#### Program 02

#### III. [Workshop] A Change of Plans



Case Study 01: A Change of Plans

Yoshio came back from a brief summer vacation convinced that he would be able to finish up his Ph.D. in one more semester. Though he had not discussed the status of his thesis with his adviser or any other member of his thesis committee since the spring, he was sure they would agree that he could finish up quickly. In fact, he had already begun drawing up a list of companies to which he planned to apply for a research position.

However, when his research adviser heard about his plans, she immediately objected. She told him that the measurements he had made were not going to be enough to satisfy his dissertation committee. She said that he should plan to spend at least two more semesters on campus doing additional measurements and finishing his dissertation.

Yoshio had always had a good working relationship with his adviser, and her advice had been very helpful in the past. Plus, he knew that he would need a good recommendation from her to get the jobs that he wanted. But he couldn't help but wonder if her advice this time might be self-serving, since her own research would benefit greatly from the additional set of measurements.

1.Should Yoshio try to change his adviser's mind? For example, should he review what his measurements already show and compare that with what the new measurements would add and then ask his adviser to reconsider?

2. Should Yoshio talk with other members of his thesis committee to get their opinions?

3. What actions could Yoshio have taken earlier to avoid the problem?

4. What actions can Yoshio take now to avoid future disappointment?

Source::

On Being a Scientist: A Guide to Responsible Conduct in Research: Third Edition Committee on Science, Engineering, and Public Policy, National Academy of Sciences, National Academy of Engineering, and Institute of Medicine ISBN: 0-309-11971-5, 82 pages, 6 x 9, (2009) This free PDF was downloaded from:

http://www.nap.edu/catalog/12192.html

IV. [Workshop] The Selection of Data



Case Study 02: The Selection of Data

Kaori, a third-year graduate student, and Sayaka, a postdoctoral fellow, have made a series of measurements on a new experimental semiconductor material using an expensive neutron test at a national laboratory. When they return to their own laboratory and examine the data, a newly proposed mathematical explanation of the semiconductor's behavior predicts results indicated by a curve.

During the measurements at the national laboratory, Kaori and Sayaka observed electrical power fluctuations that they could not control or predict were affecting their detector. They suspect the fluctuations affected some of their measurements, but they don't know which ones.

When Kaori and Sayaka begin to write up their results to present at a lab meeting, which they know will be the first step in preparing a publication, Sayaka suggests dropping two anomalous data points near the horizontal axis from the graph they are preparing. She[Sayaka] says that due to their deviation from the theoretical curve, the low data points were obviously caused by the power fluctuations. Furthermore, the deviations were outside the expected error

bars calculated for the remaining data points.

Kaori is concerned that dropping the two points could be seen as manipulating the data. Kaori and Sayaka could not be sure that any of their data points, if any, were affected by the power fluctuations. They also did not know if the theoretical prediction was valid. She wants to do a separate analysis that includes the points and discuss the issue in the lab meeting. But Sayaka says that if they include the data points in their talk, others will think the issue important enough to discuss in a draft paper, which will make it harder to get the paper published. Instead, she(Sayaka) and Kaori should use their professional judgment to drop the points now.

1. What factors should Sayaka and Kaori take into account in deciding how to present the data from their experiment?

2. Should the new explanation predicting the results affect their deliberations?

3. Should a draft paper be prepared at this point?

4. If Kaori and Sayaka can't agree on how the data should be presented, should one of them consider not being an author of the paper?

#### Program 03

#### V. [Workshop] Discovering an Error



Case Study 03: Discovering an Error

Two young faculty members—Sakura, an epidemiologist in the medical school, and Takeru, a statistician in the mathematics department—have published two well-received papers about the spread of infections in populations. As Takeru is working on the simulation he has created to model infections, he realizes that a coding error has led to incorrect results that were published in the two papers. He sees, with great relief, that correcting the error does not change the average time it takes for an infection to spread. But the correct model exhibits greater uncertainty in its results, making predictions about the spread of an infection less definite.

When he discusses the problem with Sakura, she argues against sending corrections to the journals where the two earlier articles were published. "Both papers will be seen as suspect if we do that, and the changes don't affect the main conclusions in the papers anyway," she says. Their next paper will contain results based on the corrected model, and Takeru can post the corrected model on his Web page.

1. What obligations do the authors owe their professional colleagues to correct the published record?

2. How should their decisions be affected by how the model is being used by others?

3. What other options exist beyond publishing a formal correction?

Notes: This case example is cited and codified from "US National Academy of Sciences, On Being a Scientist: A Guide to Responsible Conduct in Research: Third Edition, 2009."

VI.[Workshop] Fabrication in a Grant Proposal



Case Study 04: Fabrication in a Grant Proposal, CFP, Contingency Funding Plan

Natsuki, who has just finished his first year of graduate school, is applying to the National Science Foundation for a predoctoral fellowship. His work in a lab where he did a rotation project was later carried on successfully by others, and it appears that a manuscript will be prepared for publication by the end of the summer. However, the fellowship application deadline is June 1, and Natsuki decides it would be advantageous to list a publication as "submitted" rather than "in progress." Without consulting the faculty member or other colleagues involved, Natsuki makes up a title and author list for a "submitted" paper and cites it in his application.

After the application has been mailed, a lab member sees it and goes to the faculty member to ask about the "submitted" manuscript. Natsuki admits to fabricating the submission of the paper but explains his actions by saying that he thought the practice was not uncommon in science. The faculty members in Natsuki's department demand that he withdraw his grant proposal and dismiss him from the graduate program.

1.Do you think that researchers often exaggerate the publication status of their work in written materials?

2.Do you think the department acted too harshly in dismissing Natsuki from the graduate program?

3.If Natsuki later applied to a graduate program at another institution, does that institution have the right to know what happened?

4. What were Natsuki's adviser's responsibilities in reviewing the application before it was submitted?

#### Program 04

## VII.[Workshop] Is It Plagiarism?



Case Study (06): Is It Plagiarism? On Homer's case

Professor Homer Simpson is writing a proposal for a research grant, and the deadline for the proposal submission is two days from now. To complete the background section of the proposal, Homer Simpson copies a few isolated sentences of a journal paper written by another author. The copied sentences consist of brief, factual, one-sentence summaries of earlier articles closely related to the proposal, descriptions of basic concepts from textbooks, and definitions of standard mathematical notations. None of these ideas is due to the other author. Homer Simpson adds a one-sentence summary of the journal paper and cites it.

1. Does the copying of a few isolated sentences in this case constitute plagiarism?

2.By citing the journal paper, has Homer Simpson given proper credit to the other author?

## VIII. [Workshop] A Career in the Balance



A Career in the Balance, Between Haruki and Souta.

Haruki as just months away from finishing his Ph.D. dissertation when he realized that something was seriously amiss with the work of a fellow graduate student, Souta. Haruki was convinced that Souta was not actually making the measurements he claimed to be making. They shared the same lab, but (i) Souta rarely seemed to be there. Sometimes Haruki saw (ii) [Souta's] research materials thrown away unopened. (iii) The results Souta was turning in to their common thesis adviser seemed too clean to be real.

Haruki knew that he would soon need to ask his thesis adviser for a letter of recommendation for faculty and postdoctoral positions. If he (Haruki) raised the issue with his adviser now, he was sure that it would affect the letter of recommendation. Souta was a favorite of his adviser, who had often helped Souta before when his project ran into problems. Yet Haruki also knew that if he waited to raise the issue, the question would inevitably arise as to when he first suspected problems. Both Haruki and his thesis adviser were using Souta's results in their own research. If Souta's data were inaccurate, they both needed to know as soon as possible.

1. What kind of evidence should Haruki have to be able to go to his adviser?

2. Should Haruki first try to talk with Souta, with his adviser, or with someone else entirely?

3. What other resources can Haruki turn to for information that could help him decide what to do?

#### Program 05

#### IX. [Workshop] Tests on Students



For his dissertation project in psychology, Yuuma is studying new approaches to strengthen memory. He can apply these techniques to create interactive Web-based instructional modules. He plans to test these modules with students in a general psychology course for which he is a teaching assistant. He expects that student volunteers who use the modules will subsequently perform better on examinations than other students. He hopes to publish the results in a conference proceedings on research in learning, because he plans to apply for an academic position after he completes the doctorate.

1. Should Yuuma seek IRB (Institutional Reiew Board) approval for his research project with human participants?

2. What do students need to be told about Yuuma's project? Do they need to give formal informed consent?

#### ++++

Institutional review board (definition); "An institutional review board (IRB), also known as an independent ethics committee (IEC), ethical review board (ERB), or research ethics board (REB), is a type of committee that applies research ethics by reviewing the methods proposed for research to ensure that they are ethical. Such boards are formally designated to approve (or reject), monitor, and review biomedical and behavioral research involving humans. They often conduct some form of risk-benefit analysis in an attempt to determine whether or not research should be conducted. The purpose of the IRB is to assure that appropriate steps are taken to protect the rights and welfare of humans participating as subjects in a research study. Along with developed countries, many developing countries have established national, regional or local Institutional Review Boards in order to safeguard ethical conduct of research concerning both national and international norms, regulations or codes." -Institutional review board (cited Wikipedia).

Notes: This case example is cited and codified from "US National Academy of Sciences, On Being a Scientist: A Guide to Responsible Conduct in Research: Third Edition, 2009."



X. [Workshop] A Change of Protocol

Yuzuki is doing a postdoctoral fellowship in a laboratory that studies cancer treatment. In the experiment she is overseeing, a cancer-prone strain of mice is allowed to develop visible tumors and then receives experimental drugs to observe the effects on the tumors.

Yuzuki notices that the tumors are interfering with the ability of some of the mice to eat and drink. She also notices that some of the mice are weaker and more emaciated than the others, which she suspects is a consequence of their feeding difficulties. The protocol for the experiment states that the mice will be treated only if they exhibit obvious signs of pain or discomfort.

When she mentions her concerns to another postdoctoral fellow, he suggests not raising the issue with the rest of the lab. The mice will be euthanized as soon as the experiment is over, and their nutritional status probably has little or no effect on the drug treatment. Furthermore, if it proved necessary to change the experimental protocol, the previous work would be invalidated and the Institutional Animal Care and Use Committee would need to be notified.

1. What can Yuzuki do to get more information about the issue?

2. If she decides to raise the issue with others, what is the best way to do so?

3.Should the original protocol have been approved?

Notes: This case example is cited and codified from "US National Academy of Sciences, On Being a Scientist: A

A Change of Protocol

Guide to Responsible Conduct in Research: Third Edition, 2009."

#### Program 06

## XI. [Workshop] Publication Practices



**Publication Practices** 

Anzai, a young assistant professor, and two graduate students have been working on a series of related experiments for the past several years. Now it is time to write up the experiments for publication, but the students and Anzai must first make an important decision. They could write a single paper with one first author that would describe the experiments in a comprehensive manner, or they could write two shorter, less-complete papers so that each student could be a first author.

Anzai favors the first option, arguing that a single publication in a more visible journal would better suit all of their purposes. This alternative also would help Anzai, who faces a tenure decision in two years. Anzai's students, on the other hand, strongly suggest that two papers be prepared. They argue that one paper encompassing all the results would be too long and complex. They also say that a single paper might damage their career opportunities because they would not be able to point to a paper on which they were first authors.

1. How could Anzai have anticipated this problem? And what sort of general guidelines could he have established for lab members?

2.If Anzai's laboratory or institution has no official policies covering multiple authorship and multiple papers from a single study, how should this issue be resolved?

3. How could Anzai and the students draw on practices within their discipline to resolve this dispute?

4. If the students feel that their concerns are not being addressed, to whom should they turn?

5. What kind of laboratory or institutional policies could keep disputes like this from occurring?

6.If a single paper is published, how can the authors make clear to review committees and funding agencies their

various roles and the importance of the paper?

Notes: This case example is cited and codified from "US National Academy of Sciences, On Being a Scientist: A Guide to Responsible Conduct in Research: Third Edition, 2009."

XII. [Workshop] Who Gets Credit?



Who Gets Credit?

Nemoto has been working in a large engineering company for three years following his postdoctoral fellowship. Using computer simulations, he has developed a method to constrain the turbulent mixing that occurs near the walls of a tokamak fusion reactor. He has written a paper for Physical Review and has submitted it to the head of his research group for review. The head of the group says that the paper is fine but that, as the supervisor of the research, he needs to be included as an author of the paper. Yet Nemoto knows that his supervisor did not make any direct intellectual contribution to the paper.

1. How should Nemoto respond to his supervisor's demand to be an honorary author?

2. What ways might be possible to appeal the decision within the company?

3. What other resources exist that Nemoto can use in dealing with this issue?



XIII. [Workshop] A Commercial Opportunity?

Ikeda was always interested in bioinformatics and decided to use some of his free time to write a program that others in his microbial genetics' laboratory would find useful. Starting with a popular spreadsheet program on his university-provided computer, he wrote the program over the summer and posted it on his personal Web page as a bundle that combined the spreadsheet program and his own program. Over the next academic year, he improved his program several times based partly on the feedback he got from the people in his laboratory who were using it.

At national meetings, he discovered that researchers in other laboratories had begun to download and use his program package, and friends told him that they knew of researchers who were using it in industry. When the issue arose in a faculty meeting, Ikeda's faculty adviser told him that he should talk with the university's technology transfer office about commercializing it. "After all," his adviser said, "if you don't, a company will probably copy it and sell it and benefit from your hard work."

The director of the technology transfer office was much more concerned about another issue: the fact that Ikeda had been redistributing the spreadsheet in violation of its license. "You do have rights to what you created, but the company that sells this spreadsheet also has rights," he said. "We need to talk about this before we talk about commercialization."

1.What obligations does Ikeda have to the developer of the original spreadsheet program? To the university that provided the spreadsheet and computer.

2. What are the pros and cons of trying to commercialize a program that is based on another's product?

A Commercial Opportunity?

3. What conflicts and practical difficulties might Ikeda encounter if he tries to operate a business while working on his dissertation?

Notes: This case example is cited and codified from "US National Academy of Sciences, On Being a Scientist: A Guide to Responsible Conduct in Research: Third Edition, 2009."



XIV. [Workshop] A Conflict of Commitment

A Conflict of Commitment

Haruna was excited about being accepted as a graduate student in the laboratory of Dr. Koshimoto, a leading bioinformatics scholar in her field, and she embarked on her assigned research project eagerly.

But after a few months she began to have misgivings. Though part of Dr. Koshimoto's work was supported by governmental grants, the project on which she was working was totally supported by a grant from a single company.

She had asked Dr. Koshimoto about this before coming to his lab, and he had assured her that he did not think that the company's support would conflict with her education. But the more Haruna worked on the project, the more it seemed skewed toward questions important to the company. For instance, there were so many experiments she needed to carry out for the company's research that she was unable to explore some of the interesting basic questions raised by her work or to develop her own ideas in other areas.

Although she was learning a lot, she worried that her ability to publish her work would be limited and that she would not have a coherent dissertation. Also, she had heard from some of the other graduate students doing companysponsored work that they had signed confidentiality statements agreeing not to discuss their work with others, which made it difficult to get advice. Dr. Koshimoto and the company's researchers were very excited about her results, but she wondered whether the situation was the best for her.

1.Has Dr. Koshimoto done anything wrong in giving Haruna this assignment?

2. What potential conflicts in terms of data collection, data interpretation, and publishing might Haruna encounter as she continues with her research?

## Program 08

XV. [Lecture & Workshop] The Elemental Form of the Ethics in Conducting Fieldwork

## What is an Ethical Dilemma in your fieldwork?

"An ethical dilemma (ethical paradox or moral dilemma) is a problem in the decision-making process between two possible options, neither of which is absolutely acceptable from an ethical perspective. Although we face many ethical and moral problems in our lives, most of them come with relatively straightforward solutions." - What is an Ethical Dilemma? (CFI)

"An ethical dilemma, ethical paradox, or moral dilemma is a decision-making problem between two possible moral imperatives, neither of which is unambiguously acceptable or preferable. The complexity arises out of the situational conflict in which obeying would result in transgressing another. Sometimes called ethical paradoxes in moral philosophy, ethical dilemmas may be invoked to refute an ethical system or moral code, or to improve it so as to resolve the paradox." Wiki, Ethical dilemma.

	α. formation, developing your proposal	β. conduct, behavior in your field	γ. communication, making your work public
A. accuracy	□ 1.	□ 13.	□ 24.
	□ 2.	□ 14.	□ 25.
	□ 3.	□ 15.	
B. humane treatment	□ 4.	□ 16.	□ 26.
	□ 5.	□ 17.	□ 27.
	□ 6.	□ 18.	
		□ 19.	
C. informed participants	□ 7.	□ 20.	□ 28.
	□ 8.	□ 21.	□ 29.
	□ 9.		
	□ 10.		
D. neccessity and	□ 11.	□ 22.	□ 30.
аррисаонну	□ 12.	□ 23.	□ 31.

Let's fill in the blanks that is cited from a pdf of the PERCS, Elon university.

## Ethical Dilemma Source: PERCS

1. "You are working with a college club sports team to understand the organization from an emic (insider's) perspective. Your research has focused on the social structure of the team, particularly as it operates to unify a diverse group of athletes who aren't getting scholarships or any other outside incentive to play. The team has been

cited numerous times for violating the no-drinking policy, and has been told that if they violate it again, they will be disbanded. In the course of your work, you realize that the drinking culture of the group is an integral part of the team. T-Shirts, cheers, chants and songs all herald alcohol as an important part of the culture. You see this particularly in terms of the social bonding that occurs off the playing field at the numerous parties held. You can't offer confidentiality to the team since you are working on a video ethnography. What do you do?"

2. "You are working with a local church congregation and are present during many of their religious ceremonies. You are not a member of the church. Everyone is clapping and singing while you sit quietly in your pew. Eventually, everyone moves to the altar to accept communion. You don't want people to think you do not approve of the way they worship, nor do you want people to think you presumptuous by participating. Do you participate in the ceremony by clapping and singing and eventually receiving communion? Or do you remain a quiet and detached observer?"

Source: Program for Ethnographic Research and Community Studies (PERCS), Elon university. https://www.elon.edu/u/academics/percs/

## XVI. [Lecture] On Critical Thinking

"Critical thinking is the analysis of facts to form a judgment. The subject is complex, and several different definitions exist, which generally include the rational, skeptical, unbiased analysis, or evaluation of factual evidence. Critical thinking is self-directed, self-disciplined, self-monitored, and self-corrective thinking. It presupposes assent to rigorous standards of excellence and mindful command of their use. It entails effective communication and problem-solving abilities as well as a commitment to overcome native egocentrism and sociocentrism." - Critical thinking.

"Critical thinking was described by Richard W. Paul as a movement in two waves (1994).[2] The "first wave" of critical thinking is often referred to as a 'critical analysis' that is clear, rational thinking involving critique. Its details vary amongst those who define it. According to Barry K. Beyer (1995), critical thinking means making clear, reasoned judgments. During the process of critical thinking, ideas should be reasoned, well thought out, and judged.[3] The U.S. National Council for Excellence in Critical Thinking[4] defines critical thinking as the "intellectually disciplined process of actively and skillfully conceptualizing, applying, analyzing, synthesizing, or evaluating information gathered from, or generated by, observation, experience, reflection, reasoning, or communication, as a guide to belief and action."[5]"



Source information: Patrick J. Hurley, "A Concise Introduction to Logic, 12th Ed."

#### 

The Presentation Task which means the examination finale of this class.

"Make 3 minutes presentation sheets on the Ethical issue of this class that you're interested in, with Theme title, your name, student ID of the university in the PowerPoint, Keynotes, or Pdf format." on the last day of this class."

1. [Violation against Human Rights in Academic Research Context]



Protect Human Rights in Academic Research Context

What Are Human Rights?

"Human rights are rights inherent to all human beings, regardless of race, sex, nationality, ethnicity, language, religion, or any other status. Human rights include the right to life and liberty, freedom from slavery and torture, freedom of opinion and expression, the right to work and education, and many more. Everyone is entitled to these rights, without discrimination." - by the UN.

"Human rights are [also] moral principles or norms that describe certain standards of human behaviour and are regularly protected in municipal and international law." - Human rights, by Wiki. Protecting human rights in the academic context. Let's defend from these violations mentioned below. and Racial discrimination

Sex discrimination

Sexual harassment

Workplace bullying in academia

Power harassment

Abuse, and

Neglect.

Let's define these types of human rights violations mentioned above.

Racial discrimination: "Racial discrimination is any discrimination against any individual on the basis of their skin color, or racial or ethnic origin"- Racial discrimination(wiki)

Sex discrimination: is constituted from not only "sexism, homophobia, transphobia and biphobia, but also sex, marital or relationship status, actual or potential pregnancy, sexual orientation, gender identity, intersex status or breastfeeding in a range of areas of public life." - from Sex Discrimination Act 1984(Australia)

Sexual harassment: "is a type of harassment\* involving the use of explicit or implicit sexual overtones, including the unwelcome or inappropriate promise of rewards in exchange for sexual favors. Sexual harassment includes a range of actions from verbal transgressions to sexual abuse or assault. Harassment can occur in many different social settings such as the workplace, the home, school, churches, etc. Harassers or victims may be of any gender."- Sexual

#### harassment(wiki)

\*"Harassment covers a wide range of behaviors of an offensive nature. It is commonly understood as behavior that demeans, humiliates or embarrasses a person, and it is characteristically identified by its unlikelihood in terms of social and moral reasonableness. In the legal sense, these are behaviors that appear to be disturbing, upsetting or threatening."- https://en.wikipedia.org/wiki/Harassment

Workplace bullying in academia: "Bullying in academia is a form of workplace bullying which takes places in the institutions of higher education, such as colleges and universities in a wide range of actions. It is believed to be common, although has not received as much attention from researchers as bullying in some other contexts. Academia is highly competitive and has a well defined hierarchy, with junior staff being particularly vulnerable. Although most universities have policies on workplace bullying, individual campuses develop and implement their own protocols. This often leaves victims with no recourse. Recently, a Non-Profit Organization called "The Academic Parity Movement" has been established in Massachusetts to provide legal and mental advises to the targets of academic bullying."- Workplace bullying in academia.

Academic mobbing "is a sophisticated form of bullying where academicians gang up to diminish the intended victim through intimidation, unjustified accusations, humiliation, and general harassment. These behaviors are often invisible to others and difficult to prove.Victims of academic mobbing may suffer from stress, depression and suicidal thoughts, as well as posttraumatic stress disorder.

Power harassment: "is a form of harassment and workplace bullying in which someone in a position of greater power uses that power to harass or bully a lower-ranking person. It includes a range of behavior from mild irritation and annoyances to serious abuses which can even involve forced activity beyond the boundaries of the job description. Prohibited in some countries, power harassment is considered a form of illegal discrimination and political and psychological abuse. Types of power harassment include physical or psychological attacks, segregation, excessive or demeaning work assignments, and intrusion upon the victim's personal life." - Power harassment by wiki.

Abuse: "is the improper usage or treatment of a thing, often to unfairly or improperly gain benefit" - Abuse in Wiki

Neglect: " is a form of abuse where the perpetrator, who is responsible for caring for someone who is unable to care for themselves, fails to do so. It can be a result of carelessness, indifference, or unwillingness and abuse." - Neglect, by Wiki.

## 2. [Useful dicta for Young Scientists]



Useful dicta for Young Scientists

These are useful dicta for becoming scientists especially in ethical conduct in research. All the dicta are cited from Karl Sindermann's "Winning the games scientists play," 1982, pp.190-191.

• Design and conduct investigations in conformity with accepted scientific methods;

• Report in full, on a timely basis, the results of investigations, basing conclusions solely on objective interpretations of available data;

- Not publish or disclose data provided by others without their expressed permission;
- Not publish or release data anonymously;
- Give proper credit for ideas, data, and conclusions of others;
- Prevent release or publication of preliminary or misleading reports of results obtained;

• Resist temptations to utilize news media as first outlets for significant scientific information, in advance of disclosure to peers through normal publication channels;

• Challenge unethical conduct of other scientists, using scientific journals and scientific meetings as proper forums for debate;

• If in private industry, respect the terms of any agreement concerning proprietary information, but avoid entering into agreements which may lead to prolonged suppression of significant new information;

• Provide legitimate conservative estimates of degree of risk of any activity within their area of expertise, based on the best available evidence, but resist pressures for extrapolation and speculation beyond the logical conclusions derived from that data;

• Resist pressures to support decisions based on social, economic, or political considerations by warping conclusions based on scientific evidence;

• Resist pressures to support publicly an officially declared position by an employer if such a position is clearly not in accord with available scientific evidence;

• Offer scientific advice only in areas in which background or experience provides professional competence;

• Resist temptations to express subjective opinions or views in public forums on scientific matters outside areas of individual competence;

• Discourage, by whatever means are available, the employment of professionals in subprofessional jobs, except as temporary expedients;

• Discourage, by whatever means are available, the employment of subprofessionals in professional scientific positions;

• Encourage, by whatever means are available, payment of adequate compensation to professionals for professional services; and

• Encourage the professional development of scientists for whom he or she has supervisory or management responsibility.

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