The Lab: Avoiding Research Misconduct

Introduction

The Lab: Avoiding Research Misconduct is a Virtual Experience Interactive Learning Simulation (VEILS) program. Participants will assume one of four playable roles: a graduate student, a postdoctoral student, a principal investigator, or a research integrity officer. In each segment, the character has to make decisions about how to handle possible research misconduct. The story spins off in different directions, depending upon the choices participants make as the character. The decisions that each character makes have consequences that not only affect that character's future, but also the future of others in the lab. Each choice or combination of choices brings results that must be dealt with.

This program includes:

- Simulation that includes four playable characters
- Tutorials for each character that describe a step-by-step way to make ethical decisions
- This facilitator's guide

Learning Methods

This simulation can be experienced as a group, or participants can do it individually as homework.

If participants are doing the simulation together as a group, then play the opening video and choose a character to play that is most applicable to the audience. When the program comes to the first decision point, discuss each option with the group. Poll the participants to see what they want to do, make the choice, and then continue playing until the next decision point.

When the group has completed the simulation, present the tutorial for that character and discuss the ethical decision-making model. Go back

to some of the key decisions, using the questions in this guide to stimulate discussion. Emphasize the key learning points for the character.

If participants are assigned to do the simulation as homework, then class discussion can focus on the key decision points and the tutorial.

Preparation

To lead your participants through the tutorial and discussion, prepare by:

- Testing the DVD or online link and the computer equipment to make sure the program starts up.
- Complete the simulation. Go through it several times, exploring all the different choices available.
- Review the information in the tutorial.
- Read through this guide. Think about which discussion questions to use.
- Think through your own experiences. Looking back, have you faced similar ethical challenges? What did you choose to do?

Navigating the Program

Here's how the game controls work:

Control	What it does
	Plays the clip.
	Stops the action.
	Movie clips automatically play to conclusion, but clicking and dragging this bar allows you

to move back and forth within the clip.

The controls above appear briefly with each movie clip and then reappear if you roll the cursor over the bottom of the screen.

Introducing the Simulation

Whether your participants are going through the program as part of a group or by themselves, explain that it's important to play as if they truly were these characters. Ask them not to make choices just to see what happens.

Presenting the Tutorial

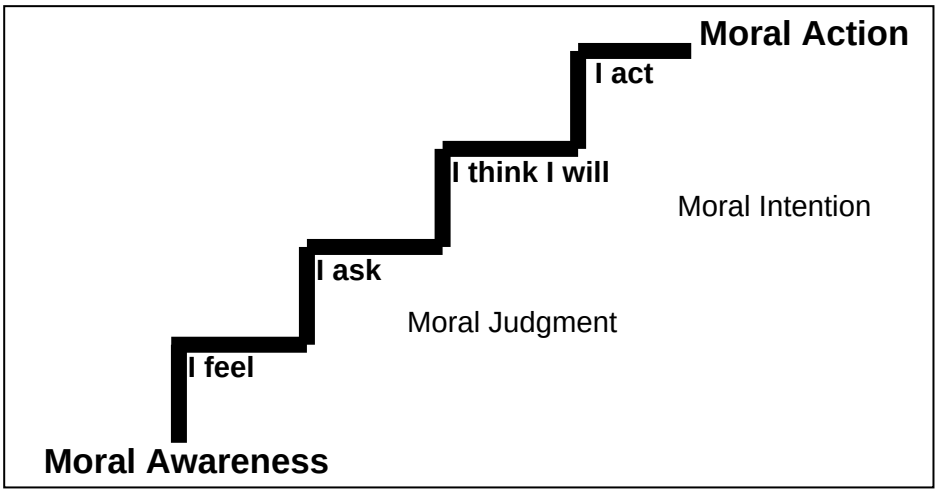
The tutorial introduces the idea of ethics and ethical decision making.

The work of Dr. James Rest proposed that there were four parts to making ethical decisions. Dr. Thomas Jones added that characteristics about the problem influenced decision making. An ethics survey was developed by the Canadian Forces and Department of National Defence using these ideas, and Dr. Elizabeth Holmes then retooled it to study how Naval Academy midshipmen and Navy chaplains made decisions. Her research found that people can react based on different moral intensity factors, which include:

- How much a particular social group (colleagues, friends, family) agrees that a given action is good or bad and what they will think about you
- How close or distant you feel to the people affected by your decision
- How much your actions harm or benefit someone
- How likely it is that something bad will happen

The tutorial then presents the model on the next page. Clicking on each step gives a complete explanation and example from the simulation.

Ethical Decision-Making Model



Emphasize that people can go through the first three steps—recognize an ethical issue, decide "the right thing to do," decide to act—and yet still not carry out their decision. The power of other people present and *what they may think about the decision maker* is the most common explanation for failing to act in an ethical manner.

After participants have seen the tutorial, the next step is to discuss the simulation in light of the ethical decision-making model.

Discussing the Simulation

In the discussion, try to connect ideas that participants have and concepts in the tutorial to actual experiences. This allows participants to understand the idea and move toward applying it. Here are some tips:

- Ask for participants to relate similar experiences with questions like:
  - Has something like this ever happened to you? Could this happen to you?
  - In your experience, do situations like this come about only when someone is under a lot of stress, and that affects decision making?
  - What other factors besides stress affect your decision making?

  Questions like these help participants see how the simulation applies to their lives. They also confirm the value of participants' different backgrounds and allow them to learn from each other.

- Thank participants when their responses connect a concept real-life experience.
- Offer your own experiences. Participants will relate to what an experienced person did in a similar situation. Although it may be hard to talk about bad choices made in the past, participants will respond well to your examples.

Below you'll find a synopsis of the opening of the video, followed by information on each character. Key learning points for that character are listed, along with the decisions he or she faces and questions to stimulate discussion among participants.

If you have only 30-40 minutes or so to teach a segment, there is an optional streamlined version at the end of each character's section. That

version is in a different color of text. It outlines the most efficient way of getting through each character's decision points. You will likely have time for only minimal discussion.

If you're really pressed for time, you may not be able to see the tutorials for each character. In that case, you may want to distribute the Ethical Decision-making Model found at the end of this guide. It covers the content of the tutorials in an abbreviated fashion.

Opening

The university administrator recalls a very bad day, when a reporter approached him about questions that a scientist from another lab had about the high-profile findings of a post doctoral student from the university. The questions turned into a full-fledged investigation, with the entire lab and other findings under suspicion. Eventually, the scientist admitted to falsifying data, the lab was closed, and the principal investigator was dismissed. The other students scrambled for other positions, stigmatized by what had happened.

The administrator then notes that all that really didn't happen. In this simulation, participants can go back in time. They can play characters who could have made a difference. They can face those same decisions and see the consequences—to figure out how to avoid this outcome.

1. Beth Ridgely

Beth is the new research integrity officer. In the simulation, she has decisions to make about how to handle her allegations of research misconduct.

Time: The simulation and tutorial will take about 50 minutes to complete, plus an additional 30 minutes or so for discussion.

Key Learning Points

- Every university that uses NIH funds must have a research integrity officer.
- Talk to any complainant face to face to establish trust.
- Graduate students are very vulnerable if they assert research misconduct.
- Use teams of subject matter experts in investigations.
- Your job is to coordinate and make sure that each step is carried out according to policy.

Decision Point 1: Do you send an email out to faculty?
(This is not an ethical decision, but it is helpful to interact with the faculty and students as much as possible, so they know who you are. If participants choose to send out the email, they reap the benefits later.)

Decision Point 2: Is Liam's allegation credible?
(If participants choose to move ahead, they discover that this is a case of disputed authorship, not research misconduct.)

Discussion Questions:

- Is it fair to everyone involved to investigate further on the basis of what was said?
- What is the likelihood of benefit or harm coming from Beth investigating? What if she doesn't investigate?
- How does a research integrity officer balance a responsibility for research integrity against the university's available resources?

Decision Point 3: Do you see Kim now, get the story over the phone, or ask her to come to the office Monday morning?
(If participants choose to meet Monday morning or to get the story over the phone, then Beth never hears the rest of the story, and participants are directed to try again.)

Discussion Questions:

- Is it fair to Kim to put off a meeting?
- Does Beth have a responsibility to meet Kim in person as soon as possible?
- What would other research integrity officers do in this situation?
- What is the likelihood of benefit or harm coming from either postponing a meeting or just talking over the phone?

Decision Point 4: How do you handle the conversation with Kim? Do you let her talk or steer the conversation?
(This is not an ethical decision, but if participants decide to steer the conversation, then Kim is scared off.)

Decision Point 5: Do you investigate Kim's claim or drop the case?
(If participants decide to drop it, then the whole story comes out two years later, and Beth is dismissed as the research integrity officer.)

Discussion Questions:

- If Beth drops the case, is that fair or unfair to Kim? Morally right or morally wrong? What about to others in the lab?
- How does Kim's past relationship with Greg influence Beth's decision?
- How does the reputation of Aaron's lab influence Beth's decision?
- What would other research integrity officers do?
- How likely is it that this situation will turn out badly if Beth drops the case? What if she investigates further?

Decision Point 6: Do you go in with a team or alone?
(This is not an ethical decision, but if participants go in alone, then Greg is able to cover up what he did. If they decide to go in with a team, then they face a decision about whether to give Greg time to produce the data. If they decide to give him time, then he covers his tracks.)

Decision Point 7: How do you handle possible retaliation against Kim?

Discussion Questions:

- Is placing Kim in another lab fair or unfair to Kim? Morally right or morally wrong? What about to others in the lab?
- How do the reputations of Aaron and the lab's work affect Beth's decision?

Streamlined Version for Beth's Segment

Time: The opening is approximately 3.5 minutes. Playing the simulation should take about 34 minutes. Playing the tutorial for Beth should take approximately 11 minutes.

Play the opening.

Play Beth's segment.

Decision Point 1: Do you send an email out to faculty?
Choose yes.
(This is not an ethical decision, but it is helpful to interact with the faculty and students as much as possible, so they know who you are. If participants choose to send out the email, they reap the benefits later.)

- Many researchers may not even know what a RIO does.

Decision Point 2: Is Liam's allegation credible?
Choose no.
(If participants choose to move ahead, they discover that this is a case of disputed authorship, not research misconduct.)

- Allegations need to be both credible and specific.

Decision Point 3: Do you see Kim now, get the story over the phone, or ask her to come to the office Monday morning?
Ask her to come to your office right now.
(If participants choose to meet Monday morning or to get the story over the phone, then Beth never hears the rest of the story, and participants are directed to try again.)

- Talk to any complainant face to face to establish trust.

Decision Point 4: How do you handle the conversation with Kim? Do you let her talk or steer the conversation?
Choose to let Kim talk.
(This is not an ethical decision, but if participants decide to steer the conversation, then Kim is scared off.)

- Graduate students are very vulnerable if they assert research misconduct.

Decision Point 5: Do you investigate Kim's claim or drop the case?
Choose no, you want to investigate.
(If participants decide to drop it, then the whole story comes out two years later, and Beth is dismissed as the research integrity officer. If participants decide to investigate, then they face another question about what to do next. *Choose to call the old RIO.*)

- Calling a colleague who may be able to help is a good idea, but be careful about communicating with too many people about an allegation.

Decision Point 6: Do you go in with a team or alone?
Choose to go in with a team.
(This is not an ethical decision, but if participants go in alone, then Greg is able to cover up what he did. If they decide to go in with a team, then they face a decision about whether to give Greg time to produce the data.

Choose to have him produce the data immediately. If they decide to give him time, then he covers his tracks.)

- Use teams of subject matter experts in investigations.

Decision Point 7: How do you handle possible retaliation against Kim? *Choose to talk to the PI.*

- Retaliation is any intentional or inadvertent act of revenge against the complainant that affects his or her employment or education.

Play the tutorial.

2. Aaron Hutchins

Aaron is a full professor in physiology with a lab. In the simulation, he has decisions to make about how much to engage with graduate and post doctoral students and how to handle an allegation of research misconduct against one of his most promising post doctoral students.

Time: The simulation and tutorial will take about 35 minutes to complete, plus 15 minutes or so for discussion.

Key Learning Points

- Reinforce good work habits in graduate students and post doctoral students.
- Be a mentor and engage equally with both post doctoral and graduate students.
- Building trust will result in a better work environment and will help identify potential problems.
- Leadership includes the responsibility to review the raw data from experiments in your lab.
- If a member of your lab reports a credible and substantive allegation, then turn the matter over to the research integrity officer.

Decision Point 1: Do you let Greg go home or keep working?

Discussion Questions:

- Is it fair or unfair to Greg to let him go home? What about if he keeps on working?
- What would Dr. Hamid do in this situation?
- Are Aaron's expectations for Greg influencing his decision?

Decision Point 2: Do you take the time to talk to Kim?

Discussion Questions:

- Is talking to Kim fair or unfair? Morally right or morally wrong? What about taking time away from Greg?
- How likely is it that benefit or harm will come from talking to Kim? What about from walking away?
- What is the magnitude of that benefit or harm?
- How close does Aaron feel to Greg? What about to Kim?
- What would Dr. Hamid do in this situation?

Decision Point 3: Do you talk to Steve?
(If participants do not, then Steve's attitude worsens, and later he is also under suspicion for cutting corners.)

- Is taking the time to talk to Steve fair or unfair? Morally right or morally wrong?
- What is the magnitude of the likely benefit or harm from talking to Steve? How about from not talking to him?
- How close does Aaron feel to Steve?
- What would Dr. Hamid do in this situation?

Decision Point 4a: Do you handle the investigation in-house or turn it over to the research integrity officer?

(If participants decide to handle the investigation in-house, then Aaron talks to Greg. Greg then has the chance to cover up if participants later decide to go to the research integrity officer. If participants decide to let it go, then Greg's misconduct is discovered later, embarrassing Aaron and the lab.)

Discussion Questions:

- What is Aaron's duty or responsibility as a scientist? As an employee of the university?
- How should Aaron balance his loyalty to Gregg against his loyalty to the lab and those in it? How about his loyalty to the university?
- How likely is it that something bad will happen if he turns the investigation over? What about if he tries to handle it in-house?
- Is he letting fear of personal consequences influence his decision?

Streamlined Version for Aaron's Segment

Time: The opening is approximately 3.5 minutes. Playing the simulation should take about 19 minutes. Playing the tutorial for Aaron should take approximately 13 minutes.

Play the opening.

Play Aaron's segment.

Decision Point 1: Do you let Greg go home or keep working?
Choose to let him go home.

- Reinforce good work habits in graduate students and post-doctoral students.

Decision Point 2: Do you take the time to talk to Kim?
Choose to take the time.

- Be a mentor and engage equally with both post-doctoral and graduate students.

Decision Point 3: Do you talk to Steve?
Choose to talk to Steve.
(If participants do not, then Steve's attitude worsens, and later he is also under suspicion for cutting corners.)

- Building trust will result in a better work environment and will help identify potential problems.

Decision Point 4: Do you handle the investigation in-house or turn it over to the research integrity officer?
Turn it over to the RIO.
(If participants decide to handle the investigation in-house, then Aaron talks to Greg. Greg then has the chance to cover up if participants later decide to go to the research integrity officer. If participants decide to let it go, then Greg's misconduct is discovered later, embarrassing Aaron and the lab.)

- Leadership includes the responsibility to review the raw data from experiments in your lab.
- If a member of your lab reports a credible and substantive allegation, then turn the matter over to the research integrity officer.

Play the tutorial.

3. Kim Park

Kim is 25, a third-year graduate student who suspects research misconduct. In the simulation, she has decisions to make about how to handle her suspicions.

Time: The simulation and tutorial will take about 40 minutes to complete, plus an additional 30 minutes or so for discussion.

Key Learning Points

- As a scientist, review any article on which you're listed as a co-author.
- If you suspect research misconduct, seek advice from those you respect and talk to the research integrity officer.
- Don't confront someone you suspect of falsifying data; your action could tip off the person and hinder any future investigation.
- Report any instances of retaliation to the research integrity officer.

Decision Point 1: Do you read the proof of the article before signing the permission form?
(If participants tell Greg that they need to read the article first, then they discover later that they are pressed for time and face the same decision about whether to read the article.)

Discussion Questions:

- What is the likelihood that something bad will happen if Kim doesn't review an article before signing a permission form?
- Would other graduate students perceive signing something without reading the article a problem?
- Are Kim's feelings about Greg influencing her decision?
- How much is the stress of time pressure influencing Kim's decision?

Decision Point 2: Do you ask Greg about the article, let it go, or seek out more advice about what to do?
(If participants ask Greg about the article, then he denies it and has time to cover his tracks. Participants are directed to try again. If participants decide to let it go, then Greg's misconduct is discovered years later, tainting Kim's career, and the game is over. If participants decide to seek advice, then they face another decision below about whom to contact.)

Discussion Questions:

- How much harm or benefit will likely result if Kim talks to Greg? What if she doesn't talk to him?
- What is her responsibility or duty as a scientist?
- What would her peers likely do in this situation?

Decision Point 2a: Do you talk to Steve, Hardik, a professor you respect, your principal investigator, your cousin, or do you research available resources on the website?
(While talking to some people proves more helpful than talking to others, eventually participants are directed back to researching the website and finding out about the research integrity officer.)

Decision Point 3: When talking to the research integrity officer, do you talk in hypotheticals or tell the whole story?
(Either decision is fine.)

Decision Point 4: Do you meet with the research integrity officer or drop the whole thing?
(If participants decide to drop it, then Greg's misconduct is discovered years later, tainting Kim's career, and the game is over. If they decide to meet with her, then they face the decision below.)

Discussion Questions:

- How much likely harm or benefit could result from Kim staying? What about if she leaves?
- What would others in her lab think was the right decision? What would her parents think?
- How should she balance her obligation to her own career and the careers of others in the lab against her obligation to research and the university?

- Is she letting fear of personal consequences influence her decision?

Decision Point 4a: Do you leave or stay and continue talking with the research integrity officer?
(If participants decide to leave each time when given a choice to stay, then the game is over. If participants decide to stay, then Kim is isolated once the investigation begins, and there are instances of retaliation. Kim ends up switching labs, which sets her back a little, but she knows that she made the right decision.)

Discussion Questions:

- If she stays, is that fair or unfair to Greg? Morally right or morally wrong? What about to others in the lab? What if she leaves?
- How much harm could come to the lab if she leaves? To the university?
- How likely is it that this situation will turn out badly if she doesn't do something?

Streamlined Version for Kim's Segment

Time: The opening is approximately 3.5 minutes. Playing the simulation should take about 23 minutes. Playing the tutorial for Kim should take approximately 13 minutes.

Play the opening.

Play Kim's segment.

Decision Point 1: Do you read the proof of the article before signing the permission form?
Read the article.

(If participants tell Greg that they need to read the article first, then they discover later that they are pressed for time and face the same decision about whether to read the article.)

- As a scientist, review any article on which you're listed as a co-author.

Decision Point 2: Do you ask Greg about the article, let it go, or seek out more advice about what to do?
Talk to Hardik.
(If participants ask Greg about the article, then he denies it and has time to cover his tracks. Participants are directed to try again. If participants decide to let it go, then Greg's misconduct is discovered years later, tainting Kim's career, and the game is over. If participants decide to seek advice, then they face another decision below about whom to contact.)

- Don't confront someone you suspect of falsifying data; your action could tip off the person and hinder any future investigation.

Decision Point 2a: Do you talk to Steve, Hardik, a professor you respect, your principal investigator, your cousin, or do you research available resources on the website?
Do the research.
(While talking to some people proves more helpful than talking to others, eventually participants are directed back to researching the website and finding out about the research integrity officer.)

- If you suspect research misconduct, seek advice from those you respect and talk to the research integrity officer.

Decision Point 3: When talking to the research integrity officer, do you talk in hypotheticals or tell the whole story?
(Either decision is fine.)

Decision Point 4: Do you meet with the research integrity officer or drop the whole thing?
Meet with the research integrity officer.
(If participants decide to drop it, then Greg's misconduct is discovered years later, tainting Kim's career, and the game is over. If they decide to meet with her, then they face the decision below.)

- Don't let fear of personal consequences prevent you from doing the right thing.

Decision Point 4a: Do you leave or stay and continue talking with the research integrity officer?
Continue talking.
(If participants decide to leave each time when given a choice to stay, then the game is over. If participants decide to stay, then Kim is isolated once the investigation begins, and there are instances of retaliation. Kim ends up switching labs, which sets her back a little, but she knows that she made the right decision.)

- Report any instances of retaliation to the research integrity officer.

Play the tutorial.

4. Hardik Prashad

Hardik has spent almost four years as a post doctoral student. He is married, with a child on the way. In the simulation, he has decisions to make about his conflicting loyalties to his wife and to the lab and how to advise a graduate student who suspects research misconduct.

Time: The simulation and tutorial will take about 40 minutes to complete, plus an additional 25 minutes or so for discussion.

Key Learning Points

- If you are unsure of your principal investigator's expectations, ask. Don't guess.
- Everyone struggles to find balance between research and a personal life.
- Don't fall in love with a hypothesis and don't discard data because you think it's what the principal investigator wants.
- Manipulating data can lead to charges of research misconduct.

Decision Point 1: What do you say to Aaron about his expectations? (Unless participants decide to ask Aaron about his expectations, the pressure that Hardik is under to produce increases.)

Discussion Questions:

- What is the likelihood that something bad will happen if Hardik doesn't challenge his assumption about Aaron's expectations?
- What would other post doctoral students do?
- Are Hardik's feelings about Greg influencing his decision?

Decision Point 2: Do you go back to the lab or scrap the experiment? (Although this is not really an ethical question, if participants decide to go back to the lab, the pressure increases for Hardik and his relationship with his wife suffers.)

Decision Point 3: Do you go to RCR training?
(Again, while this isn't an ethical dilemma, if participants decide to go, then Hardik learns information that comes in useful later.)

Decision Point 4: Do you take a break to get food?
(This decision focuses on the work-life balance.)

Decision Point 5: Do you meet your in-laws for dinner? Do you do the harvest on time, do it now and call it 6pm, scrap the experiment, or do the harvest and freeze it?

Discussion Questions:

- What are the personal consequences if Hardik scraps the experiment?
- Does Hardik have a responsibility to do the harvest on time?
- What would others in the lab think was the right decision?
- How much harm or benefit could come from any of these actions?
- What is the likelihood of harm or benefit coming from any of these actions?

Decision Point 6: Do you go back to the lab?
[If participants choose to go back and have not manipulated data to this point, then Hardik is able to tell Aaron the next day that he'll have the results ready on time.]

Decision Point 7: Do you tell Aaron the truth or use the data from a previous experiment?
(If participants have been choosing to fudge results all along, then they don't get the option to tell Aaron the truth, and Hardik continues to manipulate data. Also, when Kim comes to Hardik, he does not help her.)

Discussion Questions:

- What is Hardik's obligation to the lab? To Aaron?
- What would others in the lab think was the right decision?
- How much harm or benefit could come from telling Aaron the truth? From using data from a previous experiment?

Decision Point 8: What do you do about Kim? Do you go with her to see Beth, go to Aaron, or go to the department head?

(The most constructive action is to go with Kim to see Beth.)

Discussion Questions:

- Does Hardik have an obligation to inform Aaron?
- Is going to Aaron fair or unfair to Kim? What about to others in the lab?
- How much harm or benefit could result from going with Kim? From going to Aaron? From talking to the department head?

Decision Point 9: Do you advise Kim to speak in hypotheticals or to tell the whole story?
(Either decision is okay.)

Streamlined Version for Hardik's Segment

Time: The opening is approximately 3.5 minutes. Playing the simulation should take about 23 minutes. Playing the tutorial for Hardik should take approximately 12 minutes.

Play the opening.

Play Hardik's segment.

Decision Point 1: What do you say to Aaron about his expectations?
Ask him about his expectations.
(Unless participants decide to ask Aaron about his expectations, the pressure that Hardik is under to produce increases.)

- If you are unsure of your principal investigator's expectations, ask. Don't guess.

Decision Point 2: Do you go back to the lab or scrap the experiment?
Scrap the experiment.

(Although this is not really an ethical question, if participants decide to go back to the lab, the pressure increases for Hardik, and his relationship with his wife suffers.)

- Everyone struggles to find balance between research and a personal life.

Decision Point 3: Do you go to RCR training?
Go to the training.
(Again, while this isn't an ethical dilemma, if participants decide to go, then Hardik learns information that comes in useful later.)

- Keep up with best practices.

Decision Point 4: Do you take a break to get food?
(This decision focuses on the work-life balance.)

Decision Point 5: Do you meet your in-laws for dinner? Do you do the harvest on time, do it now and call it 6pm, scrap the experiment, or do the harvest and freeze it?
Do the harvest on time.

- Sometimes you cannot split the difference and make everyone happy.

Decision Point 6: Do you go back to the lab?
Go back to the lab.
[If participants choose to go back and have not manipulated data to this point, then Hardik is able to tell Aaron the next day that he'll have the results ready on time.]

- Manipulating data can lead to charges of research misconduct.

Decision Point 7: Do you tell Aaron the truth or use the data from a previous experiment?
Tell the truth.
(If participants have been choosing to fudge results all along, then they don't get the option to tell Aaron the truth, and Hardik continues to manipulate data. Also, when Kim comes to Hardik, he does not help her.)

- The decisions you make can "box you in" to a course of action. Make sure that even the little decisions are ethical ones.

Decision Point 8: What do you do about Kim? Do you go with her to see Beth, go to Aaron, or go to the department head?
Go with Kim to see Beth.

- Sometimes you may have to help someone else to do the right thing.

Decision Point 9: Do you advise Kim to speak in hypotheticals or to tell the whole story?
(Either decision is okay.)

Play the tutorial.

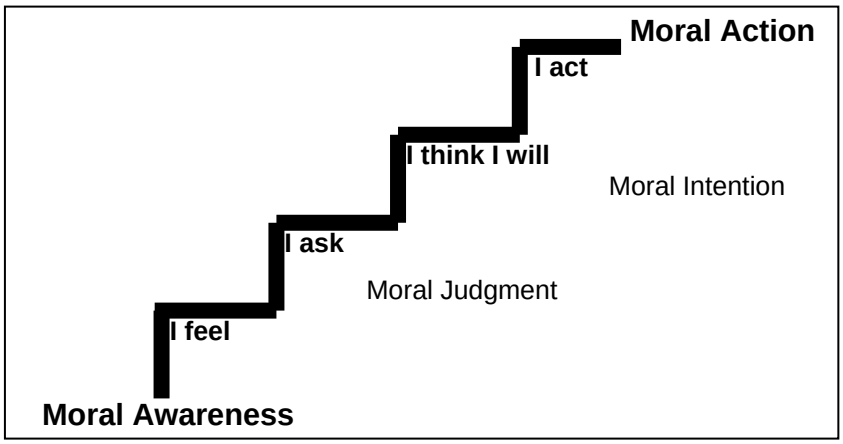
Minimum System Requirements

- Windows XP or Vista/Mac OS 10.3 ("Panther") or higher
- Adobe Flash Player 9+ (included)
- 1 GHz or faster processor (2 GHz is recommended for full-screen playback at high resolutions.)
- 256 MB of RAM (512 MB is recommended.)
- Video card and display (1024 *768 minimum resolution)
- Sound card and speakers/headphones
- Keyboard and mouse

Troubleshooting

If the video skips or hesitates …	Part of your computer can't keep up. The problem could be lack of CPU processor speed, amount of memory (RAM), or both. If you have minimum system requirements, try closing any open applications and/or decreasing screen resolution to improve performance.
If there is no sound …	☑ Double check the connections. ☑ Do the speakers have power? ☑ Are the speakers on? ☑ Is the volume turned up? After those checks, if you still don't have sound, contact your AV folks and tell them there may be a problem in the sound card or speakers.

On the following page is the ethical decision-making model. Copies may be distributed to participants as a way to reinforce their learning.



I feel – *you feel something about the situation in your body*

Decide if this situation raises a moral issue by asking:

1. Am I violating my moral emotions if I do nothing?
2. Am I putting anyone at risk if I do nothing?
3. Is something bad likely to happen here?

Check whether moral intensity factors are affecting you by asking:

1. Would my peers in research see a moral issue here?
2. How close do I feel to the people involved in this situation?

I ask – *weigh different choices to distinguish right from wrong, better from worse, and between competing tensions*

1. If I take action, is that fair or unfair? Morally right or morally wrong?
2. What would someone I respect think is the best option?
3. If I take action, is that decision in line with my lab's rules and culture? What about my university's rules and culture?

Ask whether moral intensity factors are affecting your judgment:

1. What would my peers in research think about my actions?
2. How much harm could come to someone if I take action? What if I don't take action? How much harm could come to the lab? What about to the university?
3. How likely is it that this situation will turn out badly if I don't take action?

I think I will – *decide what to do or not to do*

1. What do I think I should do?
2. How much will what other people think about me influence my decision?
3. Do I intend to act on that decision?

I act – *carry out your intention, even if there is great opposition*

1. Do I follow through on this intention?
2. What may prevent me from acting on my intention?
3. What may help me follow through on my intention?