

Using the Simulation *Operation Belmont* to Teach Research Ethics

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I present *Operation Belmont*, a simulation designed to teach research ethics to Global Social Benefit Fellows (GSBFs) at Santa Clara University. This thesis will report on the design strategy and insights gained from playtesting *Operation Belmont*, including suggestions for future research.

Simulation Goals

- Autonomy, beneficence, and justice
- Informed consent
- Integrity and respect
- Vulnerable populations

Research Questions

Perceived Learning

Objective Learning

Evaluation of the Simulation

Research Methods

Recruitment → Participants → Process



- Research Ethics Document
- Pretest
- Simulation
- Evaluation
- Debrief
- Posttest



Operation Belmont Playtest



Volunteer for a role. → Presentation → Role Description → Script

Limitations

- Global Social Benefit Fellows
- Lack of grading
- Timing
- Weak internal validity
- One coder
- Simulation itself

Future Research

- Reinforcement
- Graduate students

Ideas for Redesign

- Role descriptions
- Translator script
- Reduce text.
- Ethical principles
- Score key
- Purpose, risks, and benefits of research
- Past human subject abuses

Table 1

Knowledge Gains

Question (Knowledge Item)	Correct Answers in the Pretest	Correct Answers in the Posttest	Knowledge Increase from Pre to Post Simulation
Which of the following best describes your role as a fellow? (Role as a GSBF)	46.2%	100%	53.8%
Which are examples of vulnerable populations? (Vulnerable populations)	69.2%	100%	30.8%
The principle of respect for persons is most closely linked to what other concept? (Respect for persons)	15.4%	46.2%	30.8%
Which of the following options below best exemplifies the principle of beneficence during research? (Beneficence)	53.8%	61.5%	7.7%
What does the principle of justice primarily refer to in research ethics? (Justice)	61.5%	61.5%	0%
Does informed consent apply to photography, video, and film? (Informed consent)	92.3%	92.3%	0%
If you assigned translator in your host country does not speak good English, what step should you take? (Role as a GSBF)	15.4%	15.4%	0%

Table 2

Helpful Simulation Features for Meeting Learning Objectives

Helpful Aspects	Number of Mentions by Participants
Receiving feedback for each decision with explanations	8
Navigating informed consent (e.g., learning "how to secure informed consent for film for a whole group")	5
Having multiple choice options and scenarios that one did not think of before	4
Overall interactivity (e.g., "the role-playing aspect of it was a good way to get invested")	4

Table 3

Unhelpful Simulation Features for Meeting Learning Objectives

Unhelpful Aspects	Number of Mentions by Participants
Lack of clarification regarding the role of the participant and translator, especially concerning the latter's freedom to improvise	5
The amount of roles, scripts, cards, and text made the simulation confusing to follow	4
Scoring the researchers without any feedback on the scores themselves	3
Lack of clear distinction between answers for questions about the three main ethical principles	3