Working with Humans

Effects and Ethics

Hawthorne Effect
The basic idea behind the Hawthorne Effect (sometimes called the observer effect) is that the act of studying people can alter their behavior.

– The name comes from the Hawthorne Works factory and a study to look at the impact lighting changes (among other things) could have on worker productivity.
– It is felt that the increased productivity was more a result of workers being motivated by the attention being paid to them.
Pygmalion Effect

The basic idea behind the Pygmalion Effect (or a self-fulfilling prophesy) is that if you increase the expectations imposed on a group, you can increase the average performance.

– There is a corollary effect where decreasing expectations risks a decrease in performance.

http://art.rmngp.fr/fr/library/artworks/jean-baptiste-regnault_l-origine-de-la-sculpture-pygmalion-amoureux-de-sa-statue-priant-venus-de-l-animer_huile-sur-toile_1786

Clever Hans Effect

The basic idea behind the Clever Hans Effect (or observer-expectancy) is that the biases of the research can influence the participants of a study via things like body language.

– This is a major reason for double-blind studies.

https://www.britannica.com/topic/Clever-Hans
Education Research

These effects can all impact education research. A faculty member trying a new technique might see improvements because of things like:

– The students sensing the faculty member’s enthusiasm.
– The faculty member is pushing harder for the students more to succeed.
– The faculty member improves their core teaching approach as they prepare lessons using their new technique because they want it to succeed.

from Christian Science Monitor
...and to think that you want me to test it!!!

"Doctor" Sid finds yet another subject for his electric-chair experiments

from Saul Greenberg
**Milgram Experiment**

1960s experiments to understand authority figures and obedience.

- Very controversial study and a classic example that is often given of what NOT to do in experimental design.
  - It has actually been REPEATED over the years!

A similar experiment was done at Stanford in the 1970s using the prisoner/guard model and also later seen as unethical.

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**Institutional Review Boards**

IRB Committees review experimental designs and request changes if elements of the design raise concerns.

- There are exemption categories, but they are very narrow.

- While biomedical and socio-behavioral studies are the main types that motivated this, any systematic study with humans is typically subject to review.
Example Readings

• Belmont Report
  http://www.hhs.gov/ohrp/humansubjects/guidance/belmont.html

• Research Ethics
  http://www.ugresearch.umd.edu/researchethics.php

• When is an IRB Required?
  http://www.umresearch.umd.edu/RCO/New/IRBProcess.html#Review

• Consent Form guidance
  http://www.umresearch.umd.edu/RCO/New/IRBForms.html#consentform

Stress Happens

Taking part in any type of testing can be stressful to the participant.

– Performance anxiety even if they are testing their product, not you.
– Feeling foolish or uninformed even if the real cause is what you are testing hasn’t been built well.
– Thinking about whether others have done things faster or better or different than you.

Bang Head Here
R-E-S-P-E-C-T

The NUMBER ONE RULE is to always treat your participants with respect! We talked about this briefly earlier in the semester, but as we prepare to work more with people it’s well worth discussing it again!

Remind participants that they can pause or stop any time they want. If they do, you cannot show any sign of disappointment; just thank them for their time and allow them leave.

Actually, either way be sure to thank them for their time and help at the end!

Respect…

…their time by having everything prepared and tested and set up before they arrive and not having them doing things that you don’t care about.

- if something does go wrong, let them know that (and take responsibility for it) and if you plan to try to fix it on the spot let them know how long it might take…

…their curiosity by keeping them informed of what’s going on, answering questions they might have, etc.

If something goes wrong, don’t show emotions which make the participant think they did something wrong and remind them that they aren’t being tested, you are 😊
Comfort and Privacy Count!

Make sure they have a comfortable working space (comfy chair, fresh air/circulation, a clean space, rest breaks).

Privacy isn’t just keeping data confidential, it’s also avoiding testing or discussing the experiment with them in public spaces and then when writing papers making sure any anecdotes you use can’t let a friend identify the person.

Facebook, News Feeds, and Emotions

A few years ago researchers at Facebook published outcomes of a study that looked at how emotions of one user can influence the emotions of their friends. As part of this they manipulated over half a million news feed (some to show more positive posts and some to show more negative posts).

What do you think about this type of study in terms of Internet research, informed consent, and ethics?