Presentation on Hypotheses
Notes recorded by Leigh Ash

Hypothesis: a proposition to be tested; predicts a relationship between 2+ variables; answers research questions and makes predictions
--Requires a straight-forward prediction about some possible relationship between variables and is accompanied by a null-hypothesis which predicts no relationship

Testing
--Negative data is more beneficial because you can disprove a hypothesis without doubt
--With positive data, you don’t have the liberty to say the findings display a universal fact

Developing
What to avoid: ecological fallacy

Projectionism
Spuriousness (when a variable affects the outcome of research that isn’t accounted for in the testing of the hypothesis)

Sex Segregation
History: the physical/social separation of groups (men and women)

Forced or voluntary?: the segregation of men and women in the workplace could be coerced/discriminatory or it could be voluntary based on the preferences of each group with regard to different occupations

Gender essentialism: cultural belief that men and women are fundamentally different→ this explains the mechanism behind the natural differentiation between male and female work

Statistical discrimination: economists assert that employers hire based on the perceived characters of male and female

Ex.] Females bear children, thus they are more likely to leave their jobs behind in order to raise their children

Our Hypotheses
1. The University of Pittsburgh knowingly segregates their staff based on their staff’s sex
2. There is no relationship at the University of Pittsburgh between occupation and sex
3. There is evidence of gendered divisions of labor at the University of Pittsburgh.
4. There is no evidence of gendered divisions of labor at the University of Pittsburgh.
5. There are preferences for stereotypically gendered positions at the University of Pittsburgh.
   a. Women are preferred in the food service/cleaning sectors
   b. Men are preferred in maintenance/manual labor

Testing Our Hypotheses
Human resource records, previous studies may be applicable, etc.
**Complications**

**False Negatives:** the test incorrectly shows that there is no relationship present between the independent and dependent variables when in actuality a relationship does exist

**False Positives:** the test shows incorrectly shows that there is a relationship between the independent and dependent variables when in actuality a relationship does not exist

→ Complicates accuracy; hurtful to the project and to the University

**Type 1 error (false positive):** null hypothesis is rejected, but it is actually correct

**Type II error (false negative):** null hypothesis is accepted, but it is actually incorrect

<table>
<thead>
<tr>
<th>No evidence of segregation</th>
<th>Yes evidence of segregation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Null-No evidence of segregation</strong></td>
<td>Type I error→false positive</td>
</tr>
<tr>
<td><strong>Null-No evidence of segregation</strong></td>
<td>Correct</td>
</tr>
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