EGAP Learning Days Research Design Form

Source: https://egap.github.io/learningdays-resources/Exercises/design-form.html

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Section 1:
Introduction

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1. **Researcher name**
2. **Research project title**
3. **One sentence summary of your specific research question**
4. **General motivation**
   i. Why should someone who is not an academic care care about the results of this research? [1 paragraph]
   ii. What policy decision(s) will your research help inform? [1 paragraph] |
5. **Theoretical motivation**
   i. What theoretical questions can this research shed light on? [1 paragraph]
   ii. Key debate(s)/literature(s) that will be informed by the answer to your research question [1 paragraph]
6. **Primary hypotheses**
   i. What are the key parameter/estimands the research design seeks to estimate? What sign and/or magnitude is predicted by primary hypotheses for each parameter/estimand? [1-2 paragraphs]
   ii. What is the logic or theory of change behind the primary hypotheses [1-2 paragraphs]
   iii. What are the key pieces in the relevant academic literature that inform your hypotheses? [2-3 pieces]

Section 1: Introduction	
7. **Secondary hypotheses**	i. What are the secondary paramater/estimands the research design seeks to estimate? What sign and/or magnitude is predicted by the secondary hypotheses for each parameter/estimand [These may be conditional effects for subgroups or hypotheses about additional outcomes or cross- randomized treatments.] ii. What is the logic or theory of change behind each secondary hypothesis? [Explain what effects we should expect if the theory behind your primary hypothesis is correct.]
8. **Alternative explanations if results are consistent with hypotheses**	i. What alternative theories could explain the results? ii. Hypothesis for an alternative outcome (or other subgroups) that would be consistent only with the alternative explanation and not the logic behind your primary hypothesis.
9. **Alternative explanations if results are *inconsistent* with hypotheses**	i. What alternative theories could explain the results?

Section 2: Population and Sample	
10. **Population of interest**	
11. **Where and when will your study take place?**	i. Does this match up to your population of interest, or are there conditions that make this study context different?
12. **Sample size**	i. How is this sample selected? Be specific about the procedure.
13. **Consent**	i. How will you obtain informed consent? If you will not, what is the justification? ii. Is this population vulnerable to being coerced into participating in the study?

Section 2: Population and Sample	
14. **Ethics**	i. Is the sample size large enough that you have sufficient power for your research conclusions to be credible and useful? ii. Is the sample size no larger than necessary for the research? iii. Can the research (results) be used to target people or make people more vulnerable?

Section 3: Intervention	
15. **Status Quo**	i. Describe the status quo–what are the current conditions in terms of the outcomes you hope to change? What aspects of the intervention already exist, if any?
16. **Intervention**	i. Describe your intervention(s) ii. What is already known about the effect of the proposed intervention relative to the status quo? Is there credible evidence on the question?
17. **Control**	i. Describe the control condition ii. Is the control condition a pure control (no intervention at all) or a placebo? What is the placebo contition designed to control for?
18. **Units**	i. To what units (level) will the intervention be applied? Individual, classroom, school, village, municipality, etc. ii. Is this the same level at which outcomes will be measured? If not, how will you address the different levels if they do not perfectly overlap?
19. **Compliance**	i. What does it mean to "take" (comply with) the the intervention? ii. If the intervention is a prgram, how much someone need to attend (showing up once? finishing the program?) in order to count as having attended?
20. **Non-Compliance**	i. Is there any concern with non-compliance (either taking the intervention if assigned to control/placebo or failing to take the intervention if assigned to treatment)?

Section 3: Intervention	
21. **Ethics**	i. Is the control condition no worse than the status quo, according to the best evidence available? ii. Are there concerns that participants may be forced to comply wiht the intervention? iii. What are the risks and magnitude of potentially negative effects of the treatment? Are such risks concentrated on a particular subset of your population?

Section 4: Outcome and Covariates	
22. **Primary Outcome**	i. What is your primary outcome?
23. **Measurement**	i. How will it be measured? (Give the actual text of the survey question and response options, if using a survey measure. Is the outcome continuous, binary, etc.?)
24. **Priors**	i. What is the expected distribution of the primary outcome? (This may come from a prior study on a similar population or you may have to make an educated guess).
25. **Validity and measurement error**	i. Is there any concern with untruthful reporting? If so, how will you address it?
26. **Stages**	i. Will you collect a baseline? ii. Will you collect a midline? iii. Will you collect multiple waves of endline measurement? iv. If you will collect a baseline or midline, how will you find the same respondents (minimize attrition?)
27. **Covariates**	i. What covariate data do you need, including for subgroup analysis? How will covariates be measured? ii. What addtional covariates (if any) will you measure? iii. What additional outcomes or covariates will you collect to distinguish between your explanation and alternatives if your findings are consistent with your hypothesis?

Section 4: Outcome and Covariates	
28. **Ethics**	i. Will data collection be onerous (time, effort) or painful (physically, emotionally) for any respondents? ii. Are these costs necessary? Have they been minimized? iii. Are they outweighed by the potential benefits of the research to society?

Section 5: Randomization	
29. **Randomization strategy**	i. Complete/simple, block, cluster, factorial etc.
30. **Blocks**	i. What are they, how many blocks, how many units per block?
31. **Clusters**	i. What are they, how many clusters, how many units per cluster? ii. If you have clusters, what is the intra-class correlation (ICC)? iii. Is clustering strictly necessary, or could you randomize at the individual level?

Section 6: Analysis	
32. **Estimator**	i. What is your estimator?
33. **Standard Errors**	i. What kind of standard errors will you use?
34. **Test**	i. If you plan to report a p-value, what kind of test will you use?
35. **Missing Data**	i. How will you handle missing data?
36. **Effect size**	i. What is the expected effect size? What is the minimum effect size that would make the study worth running? what effect sizes have similar studies found?
37. **What is your power?**	

Section 7: Implementation	
38. **Randomization**	i. How will you conduct the randomization? (on a computer in advance, drawing from an urn in public, etc.)
39. **Implementation**	i. Who will implement the intervention? ii. Are there any dangers to your research team, including enumerators? How will you minimize them? iii. How will you track the quality of the implementation of the intervention?
40. **Compliance**	i. Who will measure compliance?
41. **Data management**	i. How will you manage the data? (security, anonymity, etc.)