

Assignment 3 - Planning on a Sampling Plan

Instructions

1. Answer the below question in the boxes provided.
2. Please submit the assignment through TalentLabs Learning System.

Question 1 (6 marks)

You are now working in a factory that manufactures mobile phones and your role is the quality control manager. You are asked to implement a protocol to perform quality checks for the phones that are manufactured.

Limitation:

1. The factory does not have enough resources to check on each and every phone
2. The target is to check 10% of the phones manufactured
3. There are 100 production lines in the factory, and the phone check should not come from the same production line only.
4. The check should minimize the bias, so a probability sampling technique is preferred.

Sampling Method	Cluster sampling
Explaining the procedures (It should be a step-by-step point form explanation on how you are going to select the samples)	<ol style="list-style-type: none">1. Randomly split 100 production lines into 20 groups of mixed production lines2. Randomly select 2 groups as samples to perform quality checks

Question 2 (4 points)

Traditionally, a lot of academic research in the social science field (esp. psychology) is recruiting students from the university to participate in their research. However, people are finding that a lot of the research results could not be generalized or applied to the whole society.

One of the major reasons is about the sampling. Based on your knowledge, list out 2 reasons why the sampling method deployed in these academic research is biased and having issues from a statistical point of view.

1. This sampling method causes bias in terms of under-representing the population by only having students of the university as participants of the research.
2. This sampling method also does not allow for a wide range of participants from different demographics that is needed to properly represent the whole society.