

Snack Mix Sampling (Qualitative and Quantitative studies)

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| Prerequisite Knowledge | <ul style="list-style-type: none"> • Basic knowledge of various types of sampling (from assigned readings) |
| Learner Setting | classroom |
| Strategy Type | Active discussion--individual or group |
| Time | Faculty Prep time: 20 minutes Delivery with students: 45 minutes to an hour for example, an additional 15-30 minutes for critiquing sampling method of articles. Evaluation: 15-30 minutes, depending on group or individual format, and number of students |
| Learning Objectives | <ul style="list-style-type: none"> • Apply principles of sampling to quantitative and qualitative studies |
| Materials/ Resources | Napkins 1 cup measuring cup 2 cup or half cup measuring cup Snack mix <ul style="list-style-type: none"> ○ Pretzels ○ Chex cereal (rice or corn, do not mix types) ○ Chocolate candies (M & M © type) One qualitative and one quantitative study with simple sampling methods |
| Strategy Overview | This activity helps students identify usefulness and appropriateness of various types of sampling methods for both qualitative and quantitative studies, using visual clues from a snack mix |
| Steps | <ol style="list-style-type: none"> 1. Create a snack mix so you have a minimum of 3 different ingredients (suggested ingredients above) 2. Prepare snack mix in large mixing bowl—make enough for the entire class to have about 1 cup of snack mix per person |

3. Have students see large bowl of snack mix before they take out their cup
4. Let students know they can each scoop out 1 cup of snack mix, but they cannot eat the snack mix until we have finished the discussion. Take the snack mix back to their seat
5. Discussion:
 - a. Large bowl is the population (the entire group that you can sample from)
 - b. Each cup you took is a sample
 - i. What kind of sampling did you do?
 - ii. How many peanuts/chex cereal/candies did you get from your sample? Is this representative of the population? How will you know if it is representative (if you counted the number of each ingredient before taking the samples)
 - iii. Why is there variance in the number of each ingredient that you received? (Suggest tallying counts on the board—this also allows you to see mean, median and mode (descriptive statistics) of the sample. Example: first few people give their counts, then make a mark next to that number for each person who has the same amount). Is the variance significant?
 - iv. How can we make it a different type of sampling (cross sectional, random, etc.) Which type of sampling would give us the best results? What do we have to do to change the sampling method of the snack mix for a different study?
 - v. How could you use this population for purposive sampling in qualitative studies (only pick out the chocolate candies if studying “chocolateness”)

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| | <p>c. Ask students to change their thinking to variables, with each element of the snack mix representing a variable. Ask: if we did an intervention (selecting a cup of snack mix), what could the independent variable be? If we change the size of the cup (from 1 cup to 2 cups) as the intervention, what does that do to the dependent variable? (How does the ratio of variable A impact the relationship with variable B or C? How does that change your sampling?)</p> <p>d. Allow students to eat snack mix, while they read and critique the sampling methods for two chosen research articles—one qualitative, one quantitative.</p> <p>6. To evaluate: Ask students to provide a summative statement regarding sampling methods and how it can impact outcomes of a study. They can do this as a group, or submit the summary as individuals in class. If submitted as individuals, you can also ask for what questions they still have about sampling and critiquing sampling in a research article, for further discussion and clarification after class.</p> |
| <p>Evaluation Description</p> | <p>Informal evaluation based on discussion or written assessment.</p> |