

## Sampling Assignment

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Grade = 14 /14

### Part I – Identifying Sampling Methods.

**Convenience sampling** 1. Ms. Smith, the principal of Jones Elementary School (K-6, 547 students), wanted to learn about how time parents thought that their children spend on homework. She developed a short survey for the question, and to save time and work, she decided to not to ask all the parents, but rather get data from a smaller sample. During lunch period, Ms. Smith saw four teachers (Todd Gallagher, 4<sup>th</sup> grade; Sally Rodriguez, 2<sup>nd</sup> grade; Tom Jensen, 4<sup>th</sup> grade, and Virginia Hall (first grade) sitting together. She asked them if they could distribute the survey to the students in their classes. (2 points)

**purposive sampling** 2. The Vice President of Marketing for a national pizza chain was interested in finding out if there was a relationship between the kind of soft drinks that their customers chose and the kind of pizza they order. To do this task, forty cities were identified that represented the range of cities (urban.... rural, various ethnic and cultural populations, average age of the local population, etc.) served by the national chain. All the pizza stores in each of the cities (this varied from 1 to 14) were asked to participate in the study and return the data to the national office after doing the survey for one month. (2 points)

### Part II – Sampling Calculations

3. To learn more about what the graduates (which was 160) of a university's master's degree program in education thought about how well the courses they took prepared them for their position; it was decided to do a survey.

#### Percent of Graduates

Elementary teachers - 50%

Middle-level teachers – 10%

Secondary – 30%

Post-secondary – 10%

A major question faculty had was if the program adequately addressed the needs of teachers at all levels (elem., middle-level, secondary, or post-secondary). To accomplish this task:

a. What kind of sampling method should be used? (2 points)

**Stratified Random**

b. If you were to sample 25% of the entire population, how many elementary, middle-level, secondary, and post-secondary teachers you would randomly select? (4 points)

$$160 \times 25\% = 40$$

$$50 \times .4 = 20$$

$$10 \times .4 = 4$$

$$30 \times .4 = 12$$

**Elementary teachers- 20**

**Middle-level teachers – 4**

**Secondary – 12**

**Post-secondary- 4**

4. If you had 120 people working at your company, explain how you would use systematic (quasi-random sampling) to select a sample of 10. (4 points)

**I would have to select every nth individual from a population list of the people in my company. I would write down every person's name. Because I only want 10 people, I would randomly pick a number from one to ten out of a hat and then pick the students on the list that correspond to the number I drew in increments of 10. For example, if I drew a 7, I would select person 7, 17, 27, 37 and etc.**