

Name \_\_\_\_\_

## **Investigation 9: Survey Says?**

### **Worksheet 9.2 Data Collection Methods**

#### **Plan to Collect Data**

The following is a summary of the plan implemented at Rufus King High School.

All students attending Rufus King are required to take an English course. Students involved in the survey project arranged providing the option of completing a survey during an English class with the school's English teachers. They estimated it would take fewer than five minutes to complete the survey. A specific day was identified to complete the survey. Students were also told by their English teachers that they did not have to complete the survey. Students involved in organizing this project provided an explanation of the project to the students several days before the survey was distributed by way of an all-school announcement. In addition, a flier was sent home to inform parents and guardians about the project. The number of students who completed the survey was 1103.

Each survey was collected and given a specific identification number. Identification numbers from 1 to 1103 were assigned to the completed surveys. It was decided that 50 randomly selected surveys would form the sample for this study. Students generated 50 random numbers from 1 to 1103 using a graphing calculator. The 50 numbers generated by the calculator represented the 50 identification numbers and the 50 surveys selected to form the sample.

1. Do you think the above plan resulted in a sample that provided all students an equal chance to be selected in the sample? Explain your answer.
2. Why do you think it was important to inform students about the project before they received the survey?
3. Why do you think it was important to inform parents and guardians about the project?
4. Using the plan described, which students would not have completed the survey?
5. Do you think the sample of 50 completed surveys represents a representative sample of all students?

6. Based on the survey results worksheet, complete the following:

**Q1** Proportion of females:

Proportion of males:

**Q2** Proportion of students in 9<sup>th</sup> grade:

Proportion of students in 10<sup>th</sup> grade:

Proportion of students in 11<sup>th</sup> grade:

Proportion of students in 12<sup>th</sup> grade:

**Q3** Proportion of students who indicate they are a “dog person”:

Proportion of students who indicate they are a “cat person”:

Proportion of students who indicate they are neither:

**Q4** Proportion of students who plan to attend college after high school:

Proportion of students who plan to get a job after high school:

Proportion of students who plan to enlist in the military after high school:

Proportion of students who selected other:

**Q5** Proportion of students who participate in the school’s athletic program:

**Q6** Proportion of students who exercise daily:

**Q7** Proportion of students who spend at least one hour per week outdoors:

**Q8** Proportion of students involved in community service:

7. Based on the above summaries, provide a brief description of the students attending this high school.

8. What is your estimate of the *number of* students who participate in an athletic program from the total enrollment of 1204 students? Do you think your estimate is the exact number of students who participate in an athletic program?
9. Why might it be important to know the number of students and the proportion of students who participate in a school athletic program?
10. What is your estimate of the students who participate in community service? Do you think your estimate is the exact number of students who participate in community service?
11. Why might it be important to know the number and proportion of students who participate in community service?
12. Why might it be important to know the proportion of students who spend at least one hour involved in outdoor activities?