

# **COMP 7036**

## **Applied Research Methods in Software Development**

### **Surveys and Sampling**

#### ***Class Exercises***

##### Exercise #1

In writing the cover letter to accompany a mailed survey, novice researchers often stress the immediacy of their need for the data. Is this the best approach to take in the cover letter? If not, what do you recommend instead?

##### Exercise #2

A consortium of the 13 school districts in a particular county is interested in tracking graduates' satisfaction with career training, postgraduate employment, and information about higher education programs. Specifically, they are interested in the following concepts:

- Satisfaction with career guidance counseling
- Satisfaction with vocational and technical training
- Importance of different educational activities in high school
- Educational and career opportunities explored upon graduation

Construct two survey items to measure each of the constructs listed above, for a total of eight items.

##### Exercise #3

Four third-grade classrooms from a rural elementary school in central Pennsylvania will participate in the study. Each classroom has an average of 25 students (with varying reading comprehension abilities). The majority of the students will be Caucasian (approximately 80%), the remaining students may include students from varying races and ethnic backgrounds. All four classes currently use the same reading text that includes brief tests (for comprehension) at the end of each story. Identify:

- Sampling technique
- Characteristics of the sample
- Population the sample is intended to represent
- Other characteristics of interest

##### Exercise #4

Participants will be children prediagnosed as autistic by a medical doctor and approximately 3 years of age enrolled in special education preschool classes at two locations in the Los Angeles Unified School District.

Identify:

- Sampling technique
- Characteristics of the sample
- Population the sample is intended to represent
- Other characteristics of interest