

Anna Maria Bounds, Ph.D.

SOC 212 Lesson Plan

Excel Lesson Plan: Studying the Use of Social Media Platforms by NYC Government Agencies

Background of the Assignment

This lesson has three purposes:

1. To improve student understanding of the research concepts related to operationalization and measurement;
2. To teach students basic Excel spreadsheet skills as the new 212 curriculum requires that student gain an introduction to this software program; and
3. To introduce students to the free NYC Government Open Data Portal, a portal for 1300 NYC government datasets. Our MA program is in the process of partnering with DITT to provide internships for graduate students. The available datasets may be useful for undergraduate projects and in their future careers.

Learning Objectives

Students will learn how to:

Calculate simple formulas by using the Excel software program

Create charts to display results of data analysis

Analyze data on a specific topic and its meaning

Time Required for Instruction

Two Class Periods (One Lecture and One lab):

Lecture on Operationalization and Measurement

Excel Instruction and Demonstration (supplemented by Microsoft Training Video) and Introduction to NYC Open Data

Written Instructions

Students will be given a table “NYC Gov’t Use of Social Media” to analyze. To guide their analysis, they will be given written instructions for the assignment (less than one page).

Required Materials

To complete the assignment, students will need:

Access to the Excel software program

A copy of the “NYC Gov’t Use of Social Media” supplied by the instructor (to be placed on Blackboard)

Assessment Plan & Instruments

A pre-test will be given to determine student experience in using Excel and student experience in analyzing data. Students will receive participation points for completing the test.

Following the lesson and submission of the assignment, a post-test will also be given to determine student's comprehension of Excel and their ability analyze data in the assigned table. Students will receive participation points for completing the test.

The homework assignment will be graded to determine mastery of skills.

Pre and Post Tests

Pre-Test

Learning Objective 1

1. Have you previously used Excel?

Yes No

2. If yes, please list the commands for calculating the mean of a specific dataset.

Learning Objective 2

3. Have you previously used Excel to create a 2D pie chart to display results of data analysis?

Yes No

4. If yes, please list the Excel commands for creating a 2D pie chart to display results of data analysis.

5. Have you previously used Excel to create a bar chart to display results of data analysis?

Yes No

6. If yes, please list the Excel commands for creating a bar chart to display results of data analysis.

Learning Objective 3

7. Have you ever analyzed data on a specific topic to determine its meaning?

Yes No

8. If yes, please provide an example of when you analyzed data on a specific to determine its meaning.

Post-Test

Learning Objective 1

1. Have you used Excel?

Yes No

2. In Excel, please list the commands for calculating the mean of a dataset.

Learning Objective 2

3. Please list the Excel commands for creating a 2D pie chart to display results of data analysis.

4. Please list the Excel for creating a bar chart to display results of data analysis.

Learning Objective 3

5. In this assignment, did you analyze data on a specific topic to determine its meaning?

Yes No

8. In this assignment, please provide an example of analyzing data on a specific topic to determine its meaning.

Homework Assignment

Understanding NYC Gov't Use of Social Media: Data Analysis with Excel

Using the Excel program, please analyze the table “NYC Gov’t Use of Social Media” to answer the following questions.

Questions should be answered in complete sentences. All charts must be properly labelled.

If needed, please review the Excel training video that is provided on Blackboard. Tutorials are also contained in the Excel program.

Before running calculations, please take a moment to review the table and to think about the questions.

**Note that I have generated this table from a NYC Open Portal data set. This table is found on Blackboard; it does not appear on the NYC website. The web site does not need to be accessed for this assignment.

Questions:

1. Create a table that lists the ten agencies that have the highest levels of social media interaction across all platforms. “Interactions” refers to the number of “Likes/Followers/Downloads.” Create a 2-D pie chart reflecting the distribution of social media interactions for the top agency.
2. For the ten agencies that have the highest levels of social media interaction, calculate the mean number of interactions for each platform. Create a bar chart comparing the means from the highest to lowest number of interactions.
3. What conclusions can be drawn from this analysis?