Leading causes of death in the South Bronx (Community District: Mott Haven & Melrose) & New York City

Mott Haven & Melrose			New York City	
Rank	Cause: Number of Deaths	Death Rate	Rank	Death Rate
1	Heart Disease: 683	201.8	1	202.6
2	Cancer: 559	154.8	2	156.7
3	Diabetes: 114	31.9	4	20.6
4	HIV: 111	26.4	10	8.4
5	Lower Respiratory Diseases: 105	30.0	5	19.8
6	Flu/Pneumonia: 100	29.3	3	27.4
6	Stroke: 100	29.8	6	18.8
8	Drug-related: 89	20.9	9	8.6
9	Homicide: 64	13.8	14	5.7
10	Accidents: 55	14.4	7	11.8
10	Viral Hepatitis: 55	14.0	17	4.3

Revised Learning Goals

1. **Discovery:** Students will be able to hypothesize about the top 3 causes of death in the Bronx and in New York City.

Bronx:

3 = Students generated 3 possible causes

2 = Students generated 2 possible causes

1 = Students generated 1 possible cause

0 = Students were unable to generate possible causes.

New York City

3 = Students generated 3 possible causes

2 = Students generated 2 possible causes

1 = Students generated 1 possible cause

0 = Students were unable to generate possible causes.

2. **Knowledge & Conceptual Understanding:** Students will be able to read a table containing the top 10 causes of death in the Bronx and in New York

City and identify the top 3 causes of death in each. Students will compare their original answers with what the actual data are and discuss these

differences in class.

Bronx:

3 = After reading the table students correctly identified the 3 leading causes of death

2 = After reading the table students correctly identified 2 leading causes of death

1 = After reading the table students correctly identified 1 leading cause of death

0 = After reading the table students correctly identified none of the top 3 leading causes of death

New York City

3 = After reading the table students correctly identified the 3 leading causes of death

2 = After reading the table students correctly identified 2 leading causes of death

1 = After reading the table students correctly identified 1 leading cause of death

0 = After reading the table students correctly identified none of the top 3 leading causes of death

3. **Thinking & Other Skills:** Students will transform the data from this table of top 10 causes of death to two graphs, one depicting the Bronx data and one depicting the New York City data.

To what extent did students:

    A)   Choose two correct graphs to represent some of the data from Bronx and New York City presented in the table

        a)   Accurately represented table data in graphs

All data accurate	Few errors	Some errors	Many errors
3	2	1	0

        b)   Graph appropriate to data chosen

All graphs appropriate	Some graphs appropriate	All graphs inappropriate
2	1	0

4. **Attitudes, values, and habits of mind:** Students will indicate increased confidence in their ability to perform QR tasks and an increased preference for numerical information (as measured by the subjective numeracy scale)

This will be a pretest/posttest with the pretest given at the beginning of the semester and the posttest administered at the end of the semester.

Subjective Numeracy Scale

For each of the following questions use the response choices provided.

1. How good are you at working with fractions?

1	2	3	4	5	6
Not at all good					extremely good

2. How good are you at working with percentages?

1	2	3	4	5	6
Not at all good					extremely good

3. How good are you at calculating a 15% tip?

1	2	3	4	5	6
Not at all good					extremely good

4. How good are you at figuring out how much a shirt will cost if it is 25% off?

1	2	3	4	5	6
Not at all good					extremely good

5. When reading the newspaper, how helpful do you find tables and graphs that are parts of the story?

1	2	3	4	5	6
not at all					extremely

6. When people tell you the chance of something happening do you prefer that they use *words* ("it rarely happens") or *numbers* ("there's a 1% chance")?

1	2	3	4	5	6
always prefer words					always prefer numbers

7. When you hear a weather forecast, do you prefer predictions using *percentages* (e.g., "there will be a 20% chance of rain today") or predictions using only *words* (e.g., "there is a small chance of rain today")?

1	2	3	4	5	6
always prefer percentages					always prefer words

8. How often do you find numerical information to be useful?

1	2	3	4	5	6
never					very often

9. When reading about the likelihood of something happening, how helpful is it to see the exact percentage?

1	2	3	4	5	6
not at all					extremely

10. How much do you like statistics?

1	2	3	4	5	6
not at all					very much

11. How often do you use percentages in conversations (e.g., "I am 75% done with packing")?

1	2	3	4	5	6
never					very often

12. When you ask someone what time it is, do you prefer that they tell you the exact time (It's 10:04") or the approximate time (e.g., "it's a little after 10 o'clock")?

1	2	3	4	5	6
always prefer					always prefer

approximate time   exact time

13. How often do you express an opinion using numbers (e.g., on a scale of 1-10, I give it a 7")?

| 1 | 2 | 3 | 4 | 5 | 6 |
| never | | | | | very often |