

For each example, identify the W's, name the variables, specify for each variable whether its use indicates it should be treated as categorical or quantitative, and, for any quantitative variable, identify the units it was measured. If something is not specified, write NS.

1. A listing posted by the Arby's restaurant chain gives, for each of the sandwiches it sells, the type of meat in the sandwich, the number of calories, and the serving size in ounces. The data might be used to assess the nutritional value of the different sandwiches.

Who –

What –

When –

Where –

Why –

Categorical or Quantitative (units)?

2. A survey of autos parked in student and staff lots at a large university recorded the make, country of origin, type of vehicle (car, van, SUV, etc.), and age.

Who –

What –

When –

Where –

Why –

Categorical or Quantitative (units)?

3. Medical researchers at a large city hospital investigating the impact of prenatal care on newborn health collected data from 882 births during 1998-2000. They kept track of the mother's age, the number of weeks the pregnancy lasted, the type of birth (cesarean, induced, natural), the level of prenatal care the mother had (none, minimal, adequate), the birth weight and sex of the baby, and whether the baby exhibited health problems (none, minor, major).

Who –

What –

When –

Where –

Why –

Categorical or Quantitative (units)?

4. Scientists at a major pharmaceutical firm conducted an experiment to study the effectiveness of an herbal compound to treat the common cold. They exposed each patient to a cold virus, then gave them either the herbal compound or a sugar solution known to have no effect on colds. Several days later they assessed each patient's condition using a cold severity scale ranging 0 – 5. They found no evidence of the benefits of the compound.

Who –

What –

When –

Where –

Why –

Categorical or Quantitative (units)?

5. A start-up company is building a database of customers and sales information. For each customer it records name, ID number, region of the country (1 = East, 2 = South, 3 = Midwest, 4 = West), Date of last purchase, amount of purchase, and item purchased.

Who –

What –

When –

Where –

Why –

Categorical or Quantitative (units)?

3. In a study appearing in the journal Science, a research team reports that plants in southern England are flowering earlier in the spring. Records of the first flowering dates for 385 species over a period of 47 years indicate that flowering has advanced an average of 15 days per decade, an indication of climate warming according to the authors.

Who –

What –

When –

Where –

Why –

Categorical or Quantitative (units)?