① ⓐ Parameter   ⓑ Statistic

② ⓐ U.S. adults   ⓑ the 1200 randomly selected adults

ⓒ the variable is the allergy

ⓓ 33.2%   ⓔ 36%

③ The parameter is fixed because it comes from the entire population. The statistic varies because it comes from only part of the population... if you have a different sample from within that population you could have a different sample statistic.

④ ⓐ the average cost of textbooks

ⓑ the students who purchased textbooks

ⓒ the variable is cost of textbooks

ⓓ the sample is the 100 students who were used to obtain the textbook costs.

ⓔ The statistic is found by averaging the cost of the textbooks of the 100 students used.

⑤ ⓐ students enrolled at USC

ⓑ The 10 students chosen

⑥ A population is the entire group, the sample is a smaller part of that group. Often it is hard or impossible to get information from the entire population!

⑦ in notes   ⑧ in notes

⑨ ⓐ population → American households

       sample → 1353 households interviewed

(b) population → elementary school children
   sample → 2625 elementary school children
(c) population → all people
   sample → people interviewed at the mall

(10) in notes
(11) (a) statistic   (b) parameter   (c) parameter (d) statistic
(12) (a) parameter
    (b) statistic
    (c) statistic
    (d) parameter

(13) Experiment because the researchers are
"imposing a treatment" by setting the traps.

(14) Experiment because the researchers are giving the
dogs vitamins and seeing how it affects them.
They are also comparing them to a control group.

(15) Observational study. The researcher is not making
the women smoke.

(16) (a) Experiment. They are giving a pretest, imposing a
treatment, then evaluating again.
   (b) They could try to say it means computer animation
helps students learn better

(17) (A) Survey   (B) Experiment   (C) Obs. Study

(18) (a) Because they aren't comparing to a control group.... it could just be that the students did better the second time b/c they were more familiar with the testing conditions.

(b) Get a group of 60 students to take the SAT. Record their scores.