Sampling Question:

A statistics student who is curious about the relationship between

the amount of time students spend on social networking sites and their performance at school

decides to conduct a survey. Various research strategies for collecting data are described below.

In each, name the sampling method proposed and any bias you might expect.

(a) He randomly samples 40 students from the study's population, gives them the survey, asks

them to ll it out and bring it back the next day.

(b) He gives out the survey only to his friends, making sure each one of them lls out the survey.

(c) He posts a link to an online survey on Facebook and asks his friends to ll out the survey.

(d) He randomly samples 5 classes and asks a random sample of students from those classes to ll

out the survey.

Answer:  
(a) Simple random sample. Non-response

bias, if only those people who have strong

opinions about the survey responds his sample

may not be representative of the population.

(b) Convenience sample. Under coverage bias,

his sample may not be representative of the pop-

ulation since it consists only of his friends. It

is also possible that the study will have non-

response bias if some choose to not bring back

the survey. (c) Convenience sample. This will

have a similar issues to handing out surveys to

friends. (d) Multi-stage sampling. If the classes

are similar to each other with respect to student

composition this approach should not introduce

bias, other than potential non-response bias.