**Marketing Research Mark 302 Fall2020**

**Individual or pairs assignment – Due Class 10 – Midnight**

**Marked out of 100, worth 15% of the final grade.**

**Q1)** Critically evaluate the survey described below using the concepts learned in this course and answer the following questions.

1. Based on the study, identify and discuss possible sampling methods that have been used in the survey. ( State whether a probability (simple random, systematic random, cluster, stratified) or a non-probability sample (convenience, judgmental, snowball, and quota). Justify your answers. (10 points)

2. Identify and discuss the possible sampling/measurement errors (At least 2 errors) (15 points)

**Survey: Most Students Say Technology Boosts Academic Success**

Three out of four college and university students think technology has had a positive impact on their academic success, according to a recent survey. Their preferred tech tools are laptops and smartphones, and they look to their institutions to provide the software applications and resources they need. And most are satisfied with the variety of IT resources available to them.

Those findings and more came out of a [SurveyMonkey Audience](https://www.surveymonkey.com/mp/audience/) study of 601 U.S. adults ages 18–44 who are currently enrolled as students in two-year, four-year or graduate school programs. The survey was conducted from Sept. 9–11, 2017; respondents came from an online [SurveyMonkey Contribute](https://contribute.surveymonkey.com/sign-in) panel of people who volunteer to complete [SurveyMonkey](http://www.surveymonkey.com/) surveys each month in return for charitable incentives.

The survey revealed a wealth of insights into students' use of computing devices, attitude toward technology and awareness of campus resources.

**Students and Their Devices**

More than half (54 percent) of students surveyed bring at least two internet-connected devices with them to campus. Another 22 percent bring three to four devices.

Nearly all students (92 percent) use smartphones on campus; 72 percent use laptops, 23 percent use tablets. Notably, 53 percent of respondents took the survey on a mobile device (iOS or Android phone/tablet).

Forty-two percent of students are very satisfied or somewhat satisfied with the support their school provides for mobile devices, although 26 percent have never sought institutional IT support for their smartphone or tablet. In general, nearly a quarter of students (22 percent) said they never utilize IT support or the help desk at their school. Sixty-nine percent go to IT for help rarely or occasionally, while 8 percent get support frequently or very often.

**Tech and Student Success**

The majority of students (66 percent) said their overall technology experience at school has been excellent or good. What's more, most students (75 percent) said technology has had a significantly positive or positive impact on their academic success. Just 3 percent said the opposite.

When students were asked what technology issues have a negative impact on their academic success, they most frequently cited connectivity issues and internet access on campus. About one in five students (21 percent) rate their school's wireless network coverage as merely "fair or poor." (Fifty-five called the WiFi good or excellent.)

Out of all students who bring at least two devices with them to campus, 76 percent said their laptops contribute most to their academic success; 40 percent thought their smartphones were most important to their studies. Only 12 percent cited tablets, and 9 percent cited desktop computers.

However, 24 percent of students said laptops are banned from one or more of their classes, while 38 percent are restricted from using smartphones.

Students think software makes a difference too: Having "the right software applications" offered in school improves the quality of student work (cited by 67 percent of respondents), increases student productivity (66 percent), facilitates student collaboration (48 percent) and aids collaboration with faculty (39 percent). Eighty percent of students feel their school has provided all the software they need to be successful.

**Q2.**

Ubisoft is a large manufacturer of video games. The Marketing Manager has hired a consultant to design a survey to determine attitudes towards the products. In addition the percentage of young adults in Quebec owning video games and the average usage rate per week are to be determined. The Marketing Manager wants to be 95% confident of the results and does not want the error to exceed 3 percentage points for video game ownership and 1 hour for average usage rate. Previous reports are not available for the percentage owning video games, but some earlier studies do indicate that the average usage rate is 15 hours with a variance of 25 hours.

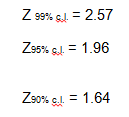
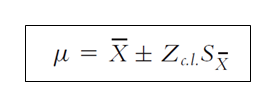
a. What sample size would you recommend assuming that only the percentage of households owning video games is to be determined? Show all your calculations (5 points)

b. What sample size would you recommend assuming that only the average usage rate per week is to be determined? Show all your calculations. (5 points)

c. Due to budget constraints, Ubisoft decided to use a sample size of 582, and to maintain the confidence level at 95%. What is the consequence of doing so for the specified video game ownership error rate and for the average usage rate error rate? Show all your calculations. (5 points)

d. The actual results of the survey showed that 30% of young adults owned video games and that the average usage rate is 13 hours (variance=16). Compute the 95% confidence interval for the usage rate per week. (5 points)

e. The consultant who carried out the survey using systematic sampling found that some interviewers had skipped respondents who were hard to understand on the phone, and that some survey questions may not have been clear. She makes the following statement in her presentation to the management of the firm: “Based on the results, I can say with 95% confidence that the average young adult in Quebec who owns video games uses them for 13 hours a week. There is only a 5% probability that any mistakes that might have occurred in the survey process can affect the results”. Discuss whether the consultant is justified in making the statement she did (in quotation marks). (10 points)



**Q3)**

A survey of 90 women was conducted for Jenna Collection.

Jenna les Collections is an evening and bridal-wear boutique located in downtown Montréal inside the well-known retailer Ogilvy’s. They offer high-quality dresses and tailoring services for all dresses purchased at their location.

1. Use the cross-tabulation technique to plot proper plots and tables for demographic questions. (15 points)
2. Use proper statistical tests to evaluate the following hypothesis:
   1. “Respondents, based on their age, are significantly different on the ideal sleeve length.” (5 points)
   2. “Respondents, based on their education, are significantly different in the ideal dress style.” (5 points)
   3. “Influence of the religion on respondents' dress style is higher for people with lower income.” (5 points)
3. Interpret your findings and give recommendations on the age of the model should be featured in **a** **fashion magazine** (Provide required table and plot)**.** Justify your answer.

(15 points)