

Laboratory Activity 2 for Math 080: Topics from Chapter 1

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1 Introduction

Malcom Gladwell is a celebrated non-fiction author who tells intriguing and intellectual stories about real situations, and thinkers. In this TED talk, he explains how his friend Howard Moskowitz used statistics to reveal clusters in the food preferences in American shoppers.

Answer the following questions and submit as a PDF file Moodle.

2 Questions

1. Identify the “three things” that Howard Moskowitz brought to the food industry.

The first thing that Howard Moskowitz brought to the food industry is the breakthrough of the conventional thinking of asking people what would make them happy, in which most people did not know what they truly want and they just followed the social or cultural standard of what is good. The second thing is the idea of "horizontal segmentation", in which there are no perfect or imperfect kinds of a product, but only different kinds that suits different kinds of people. The third thing is the idea of variability, that the platonic, or culturally authentic notion of how to made a food, can be changed, which allowed numerous breakthroughs in the food industry.

2. Suppose Howard Moskowitz, when helping Campbell's to redesign Prego tomato sauce, had used simple random sampling in his analysis instead of clustering style. What might have been missed?

If he had used simple random sampling in his analysis of Prego tomato sauce, Howard would have collected a bunch of random data, in which there wouldn't have been a clear distinction between each samples and which style or feature of the tomato sauce people actually liked.

3. Take the ideas of Gladwell and Moskowitz, and use them to describe the design of a market study that would reveal people's preferences regarding your favorite product. For what reasons do they buy it? Argue for the use of one of the sampling techniques in Chapter 1, explaining why it would allow you to differentiate and enhance your product.

I would use their idea to design a market study of tennis racquet. Commercially, people would buy famous brands for tennis racquets such as Wilson and Head, or signature racquet used by famous tennis players like Federer. In my study, I would have racquets that are designed into a variety of lengths and widths, and also different thicknesses of the grip and different kinds of material for the racquet body and the string. The way to collect data is to start a massive performance test, which is based on different standards such as the comfort of weight of the racquet, feeling about the swinging, and in-game performance by holding a big tournament. Since every age group is different in terms of playing tennis, I would use cluster sampling techniques to differentiate what each age group focuses more on, and enhance the racquets based on the result of the study. I would also use cluster sampling again to differentiate between genders of the players to see if there is a distinct difference in preference, etc. This may allow me to know what to focus on when making a racquet, based on age group and gender.