

Research Methodology

Assignment – 1

A Botanist is comparing two methods for growing sponge gourd. As a marker for the success of these methods, he is measuring the concentration of a certain chemical in the plants, 10 plants are raised from cuttings and 10 are planted in soil and rooted. The questions are as follows:

1. Does the chemical concentration differ?
2. In this case, we apply which principle of experimental design?
3. In this case, we apply which experiment design, explain in detail?

Assignment – 2

As a researcher you have to compare two hotels as per your choice on the basis of following attributes:

- Convenience of location
 - Friendly personnel
 - Value for money
1. Design a Likert Scale to accomplish this task
 2. Design a semantic differential scale to accomplish this task
 3. Design a graphic rating scale to accomplish this task

Assignment – 3

As we all know that steel factories and the challenges of the furnace workers who work in those factories is well documented as very hard and difficult work and dangerous also. Despite of great advances in technology and an ever-increasing focus on safety and various labour laws regarding this, the furnace workers still face dangerous work environments filled with heat and smoke. The molten metal must be carefully managed within the furnace, with temperatures in the vessel exceeding thousands of degrees. The possibility of critical injury or death is ever present, either through the long-term exposure to metallic fumes or from the immediate effects of a furnace explosion. A company which specializes in making high-grade metals knew how important these furnace employees were to their success, and was keenly interested in what kept them satisfied with their company. Several of their furnace employees had been with them for over 20 years, and the skills and expertise of these experienced employees were invaluable to the training of new furnace workers and the manufacturing itself.

Now as a researcher, you go for their assessment of furnace employee attitudes, with the goal of identifying what aspects of their work environment contributed to their overall satisfaction you have to make some questionnaire, a series of statements related to the company's benefits, supervisory relationships, general work-related conditions. Develop the statement and prepare a scale related to statements related to the company's safety programs and health benefits. How the measurement of attitude is an important agenda in this case study?

1. What kind of research approaches you can apply in this case study?
2. What kind of sampling you may apply here?
3. How can you indicate their level of agreement on a particular scale which is related to the statements?
4. What research tool or techniques you will use in this case study?

Assignment – 4

This case is related to the central role of technology, especially the internet, in the success of new business. Some investors seemed eager to back almost any start-up with “do-com” in its name or its business plan. Although the go-go investment climate of the 2020’s seems far away, entrepreneurs still start companies every year, and they are still making their case to the investment community. What business ideas do investors like? Is high still important? Public relations firm ABC corporations which specializes in start-up companies and those involved in technology innovation, conducted an online survey into the attitudes of 70 experts, including venture capitalists, entrepreneurs, journalists and company analysts? The central question was this:

- Do you believe that unique technology is crucial to the success of start-up companies today?
 1. Rarely
 2. Occasionally
 3. Frequently
 4. Usually
 5. Always

The remainder of the survey asked for reasons why technology is important to start-ups and invited comments from the respondents. In its news release, the ABC Corporation reported that 91% respondents consider technology to be important at least frequently. The breakdown was 39% frequently 39% percent usually and 13% always, the remaining 9% of respondents cited technology as important only occasionally, and none said it is rarely important.

Questions you have to answer:

1. Evaluate the rating scale used for the question in this case study? Is it balanced? Are the category labels clear?
2. Is the number of categories appropriate?
3. Suggest three ways that ABC corporations could improve this survey without a major cost increase.
4. Based on the information given here, what do you think the research objectives for this case study might have been? Do you think the case study or survey met its objectives? Explain