* 1. What are the characteristics of data?  
     Good quality data is precise, consistent and reliable. False data is worse than incomplete data or no data at all. The data should be relevant to the problem.
  2. What is the kind of data that she is analyzing?  
     We need to understand the nature of data we are analyzing before deciding the technique for data analysis. Answers to questions like - “Whether the data is numerical or not? Is it labeled or not?” can help determine the data analysis technique.
  3. Is the data sufficient? Is it clean and ready for analysis?  
     The analysis always becomes more accurate when there is more data to analyze. The data should be free from empty parameters, outliers, errors, etc.
  4. How is she estimating a firm’s performance? What data analysis technique is she using to find correlation between R&D and a firm's performance?  
     It is difficult to give a number to a firm’s performance especially because so many parameters such as total assets, book value, share value, ebitda, etc. reflect it.  
     How is correlation determined between R&D and a firm's performance? Have all other factors been kept constant for this analysis?
  5. Are there any patterns in data that may introduce bias?  
     Some firms may not have high correlation between R&D expenditure and performance because of the nature of the industry it operates in and vice versa. This can introduce bias and error in results. Similarly, other patterns in data can lead to heavy bias.