Reflection on the Learning Experience

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Abstract

The proposed research will assess impact of a performance monitoring system through a case study.   The Student Diversity Programs (SDP) office at Missouri University of Science & Technology is selected as the case for this study. The proposed research will design and deploy a Student Diversity Monitoring System to assist SDP office in analyzing program data and benchmark program performance to derive strategies for continuous improvement.

After surveying a group of staff and students who work with the Student Diversity Outreach and Women Programs office it was agreed that the proposed dashboard was better than their current reporting system. They stated that it was easy to use, and a good tool for finding information quickly about their progress. All the information I intended to show on the charts was understood perfectly without any issues. Although we have a few more years of data recording to show how the SDOWPs recruitment programs are helping towards the universities implementation plan we are at a great start.

Reflections

1. Describe your foundational understanding of how research is conducted in your discipline.

Within my discipline I realized that dealing with data is a big part of any project, in this case specially needed to conduct research. Making sure you understand the ground problem and knowing how far down you have to drill down the data to make sure it answers your questions was for me the most important part about starting the research project.

2. How have you expanded your understanding of the informational resources available and how to best use these resources?

I has to work with one main department, but my data required working with three different departments. When I first began this I thought I would only need to work with the organizations who plan the recruiting events. After realizing what I wanted my dashboard to show I realized I didn't just have to expand within the department but to others, in this case registrars and COER. The best way to use your resources is to know exactly what you need from them this way making it more efficiently for you and them. In my case I can't just ask for numbers and names of attendees I had

to come up with a spreadsheet and show them what information had to be filled din this way their time was spend more efficiently when helping.

3. Describe the knowledge you have gained regarding the fundamentals of experimental design.

My research was conducted on the recruiting programs the SDOWP office advises, I wanted to see how well my organization had done in the past. Little did I know that in order to do that I had to not just take SHPE's numbers but also compared them to SWE and NSBE since they do the same kind of programs within the same office, this way the numbers would be more meaningful. I also had to figure out what were the success factors that I wanted to measure the success by.

By the end I learned that I had to not only look at one group but all three to answer my question" how well is SHPE doing?" Looking at the bigger picture and knowing how to break down data to answer your question was what I learned at the end as fundamentals, because before I would have just looked at the overall total numbers for just the organization I was interested in.

4. Describe how you have learned to interpret the results of your research project.

Data can be used a lot more ways than how you intend in the first place. After gathering and making a list of all the values that I could break it down to, I learned that I could answer more questions than I had originally planned for. I began to ask different questions and figured out what information I needed to collect to be able to answer that particular question and who I need to get it from. This means that with a few more years of recording data I can see the progress of: students who came through these programs and have gotten an internship, have graduated, average time at S&T etc. Instead of just being able to see students recruited, women increase, main cities of recruitment.