

"SAS® Enterprise Guide for the MBA Student-No Longer a Hard Sell"

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Abstract

SAS® Programming for business students has long been a hard sell. Learning to run the statistical procedures requires that they also learn to do some programming. Loading their data to a SAS dataset can easily cause them to give up. And, writing SQL and Data Step programming leaves them cold. Or, the greatest frustration of all, "Why doesn't SAS just tell us when we forget a semicolon?"

As a result, they turn to Spreadsheets that will not handle large files. Or, they learn SPSS, but don't have the full functionality for data handling that SAS gives them. Either of these choices seems a weakening of their future skills.

However, SAS Institute® has recently supplied a new product called Enterprise Guide that allows the business student to take advantage of the full functionality of a robust statistical software package with a fairly reasonable learning curve.

This paper will share the experience of teaching Quantitative Methods and Statistical Analysis to a class of MBA students at Gonzaga University in Spokane, WA using SAS version 9 and Enterprise Guide (EG). Some of the SAS Institute training materials for learning EG and for learning basic stat using EG are merged with the usual presentation materials for the course. Standard text for the course is "Data Analysis & Decision Making" by Albright Winston and Zappe, packaged with MS Excel. In particular, the topics of ANOVA, Regression, and Logistic Regression are covered in the course.

Several open questions will be addressed:

What is the student perspective of learning Enterprise Guide along with learning statistical analysis?

What do they like about SAS and what don't they like?

And, are they challenged to continue and learn some SAS programming to strengthen their skill set?

Background

This author has considerable experience teaching statistics at both the undergraduate level and at the MBA level. It has always been a struggle to communicate the statistical principles and insight in to probability distributions without requiring tedious tasks of physically performing random sampling repeatedly to demonstrate such concepts as the distribution of sample means to explain the central limit theorem. Performing the calculations for linear regression can result in math errors and the resulting analysis of variance table will become error filled. As a result, the

students never reach the level of understanding where they interpret the results and see statistical analysis as a valuable tool for analyzing their business problems. The scaled down stat products that run within MS Excel are helpful but all are limited in both their flexibility for analysis and for the size of the database they can access.

SAS Institute

From the website, http://www.sas.com/technologies/bi/query_reporting/guide/, SAS Institute provides the following to describe EG:

What is SAS Enterprise Guide? SAS Enterprise Guide is a powerful Microsoft Windows client application that provides a guided mechanism to exploit the power of SAS and publish dynamic results throughout the organization.

Why is SAS Enterprise Guide important? It is the preferred interface to SAS for business analysts, statisticians and programmers and a key application in SAS Business Intelligence offerings.

For whom is SAS Enterprise Guide designed? SAS Enterprise Guide is designed for use by business analysts, statisticians and programmers.

So, the target audience for EG is the business analyst, among others.

Methodology

Fourteen Gonzaga University MBA students were enrolled in MBA 631. A course titled “Qualitative and Statistical Analysis”. At the beginning class the students were asked to work through the EG tutorial and keep a record of what they observed about the software. Strengths, weaknesses, things that work easily and things that are difficult to follow. Also, they were given a demo of EG emphasizing the topics covered in the tutorial.

Assignments were made with the data files assigned in the text and the students were asked to do them using EG. This meant that they had to convert the file using EG, then utilize EG for the analysis. In addition, they could use Excel as an alternate. Also, they were given a large national database containing loan information for a bank. Of course, the bank data file was too large for Excel, forcing the students to do the analyses with EG.

For the open questions, first “*What is the student perspective of learning Enterprise Guide along with learning statistical analysis?*” Students have been very open to learning EG along with statistical analysis. Several have shown interest due to the emphasis on quality initiatives being implemented in their workplace. The challenge for me is to make sure they see statistical analysis is much larger than just quality.

For the next two open questions, “*What do they like about SAS and what don't they like? And, are they challenged to continue and learn some SAS programming to strengthen their skill set*”, the following survey questions were administered at the end of the course:

SAS EG Survey

On a scale from 1 – 7 please rate the SAS EG software features, 1 being very unfavorable to 7 being very favorable.

Q1 SAS EG Tutorial

1 2 3 4 5 6 7

Q2 Screen Layout Windows for Project, etc.

1 2 3 4 5 6 7

Q3 Locating and Importing Data Sources

1 2 3 4 5 6 7

Q4 Describing Data

1 2 3 4 5 6 7

Q5 Analyzing Data

1 2 3 4 5 6 7

Q6 Continue Learning About SAS Programming

1 2 3 4 5 6 7

Q7 What did you like most about SAS EG?

Q8 What did you like least about SAS EG?

Q9 What one thing would you most like to say to SAS Institute regarding their software product EG?

Conclusions

Final results and tabulation for these questions will be shared at the conference in November.

Acknowledgements

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