

ENHANCING EFFECTIVENESS IN CURRICULUM: NECESSARY INNOVATIVE CHANGES

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ABSTRACT

This study proposed a set of interventions to improve the financial analysis skills of students enrolled in both the face-to-face and in our online MBA courses. The intent of the GEB5878 and GEB5930 courses is to build the foundational skills necessary to produce quality graduate level work in subsequent advanced courses requiring industry portfolio papers and multiple case analyses. In the UWF MBA curriculum, there is a heavy emphasis on financial data analysis and synthesization. By instituting new pedagogical techniques into the two classes, students demonstrated an ability to synthesize the financial analysis data and draw appropriate conclusions from the information. The interventions were testing by comparing mean test scores of a control group without the additional financial analysis training to an experimental group which did receive the training. The results of this analysis clearly support the positive effects of the interventions proposed herein.

INTRODUCTION

The University of West Florida's (UWF) Master of Business Administration/General (MBA) is an AACSB International (International Association to Advance Collegiate Schools of Business) accredited, 33 semester-hour program with an industry focus. The UWF MBA Program originally delivered courses exclusively face-to-face. Over time, several classes were developed for online delivery. However, up until the start of fall 2015 semester, only 10.5 semester-hours of the program were available in a virtual format.

UWF MBA students complete an Industry Portfolio con-

sisting of research projects written during five courses in the program. Each project addresses key business issues within a selected industry providing an in-depth understanding of the industry across the major functional areas of business. To prepare students for the industry-specific writing and research, students complete the GEB5930 Information Resources and Industry Analysis course (fully online) at the start of the MBA Program.

The UWF MBA curriculum also requires students to utilize case analysis skills throughout the program courses. Case studies provide a means for active learning by creating a realistic learning environment (Elam & Spotts, 2013). The case teaching approach also allows the student the opportunity for deep exploration of scholarship under a real-life premise that examines the subject from different viewpoints (Simmons, 2009). MBA students complete GEB5878 Business Process Integration at the beginning of the program to develop the critical thinking, assessment and presentation skills necessary to develop an effective case analysis. The GEB5878 course was originally a blended course that utilized two course meetings in addition to supporting online instruction and content.

By having the classes early in the MBA curriculum, students develop the critical skills necessary for success in the program. Both the Information Resources and Industry Analysis and Business Process Integration courses cover the topics of data acquisition, electronic library data sourcing, financial analysis, problem identification and graduate level writing expectations.

While typically different courses, both GEB5878 and GEB5930 require higher level thinking through financial data analysis and synthesis for successful completion of the classes. The development of these skills also plays a role in ensuring

students are prepared for the MBA capstone course, MAN6721 Strategic Management. This class requires participation in live cases and a business simulation. MBA involvement in these experiential learning opportunities requires the learner to be engaged directly with what is being studied (see Kolb, 2014). For the active engagement in this class setting to be an effective learning experience, the MBA students must be prepared to synthesize large amounts of financial data, identify problems and make recommendations for action.

During the fall 2015 semester, UWF launched a separate, fully online MBA Program. In preparation for the online program launch, a review of previous course structure, student learning outcomes and student performance was initiated for GEB5878 and GEB5930. Kovach and Fredendall (2013) note that the Continuous Improvement Process can improve learning, leading to increased performance. In addition, as an AACSB accredited institution, a commitment to the assurance of the learning process ensures that our courses are meeting their stated learning goals and the course curriculum facilitates student achievement in those areas (AACSB International, 2015).

This review was particularly important for GEB5878 as the course was being developed in a fully online format from its previous blended delivery. However, even the existing online GEB5930 course was evaluated and assessed. The faculty conducting the courses reviewed prior student submissions and recognized that the expected student learning outcomes related to financial ratio analysis were not aligned with course content and delivery.

STUDY BACKGROUND AND STATEMENT OF PROBLEM

Both the GEB5878 and GEB5930 courses require the synthesis and interpretation of financial information, yet MBA students were simply reporting the ratios without synthesizing the data into a meaningful analysis. The ability to synthesize complex data and draw appropriate conclusions is a necessary skill for today's leaders (Gardner, 2006). With the vast amounts of financial data available to students now, it is critical for MBAs to develop the ability to filter through this information to provide cogent, logical and well-grounded conclusions (Schachter, 2006).

The faculty conducting the GEB5878 and GEB5930 courses recognized in fall 2014 that students were not producing the expected level of financial analyses. The two courses introduced several new analytical approaches including presenta-

tions on General Environment, Porter's Five Forces, and the Resource Based View of a Firm (VRIO) to enhance the ability of the students to synthesize data for financial problem identification. However, an assessment of these two courses student learning outcomes revealed a lack of competency in the MBA students' performance in these areas:

- GEB5878: Generate a final individual case report that synthesizes the case findings and proposes resolutions.
- GEB5930: Synthesize a broad spectrum of fundamental business information into a cohesive paper that draws correct and/or reasonable inferences and conclusions from the information.

Without a clear understanding of financial analysis and the ability to synthesize the related data, the MBAs were not able to draw the appropriate conclusions in either course. It was clear that the courses still lacked the instructional tools needed to develop the MBA students' command of financial analysis -- specifically the ability to evaluate and synthesize data related to liquidity, profitability, leverage and growth ratios.

NEED FOR INNOVATIVE COURSE DESIGN CHANGES

Bloom (1956) developed the taxonomy of educational objectives as a means identify higher levels of cognition in learning. He defined synthesis as the ability to put parts together to form a new whole (Bloom, 1956). Anderson et al (2001) revised Bloom's cognitive domain taxonomy and redefined synthesis into the concept of creating. Creating not only encompassed the ability to put the parts together as a whole, but to use this whole to create new meaning. This creation of new meaning vis-a-vis synthesis is the key to the higher order thinking required for financial analysis in the GEB5878 and GEB5930 courses.

The GEB5878 and GEB5930 faculty needed to determine how to create a learning experience for students that shifted their analysis abilities from lower level Bloom's comprehension (reporting) level to higher order synthesis (creating) with appropriate conclusions (Bloom, 1956; Anderson, 2001). Students need these synthesis and creation skill in GEB5878, a case analysis based course, to develop a clearer picture of the company's financial position, to identify the organization's financial problem(s) and to develop solutions and an implementation plan for the problems identified. In GEB5930, the industry analysis course, students need the synthesis and creation

TABLE 1

Additional Financial Analysis vs. Control Performance Scores

	Summer 2015 (Control)	Fall 2015 (Intervention)	<i>t</i>	<i>df</i>
GEB5878	47.50 (26.59)	83.33 (20.10)	-3.44**	18
GEB5930	77.00 (14.75)	87.69 (11.58)	-1.99+	22
Total	64.58 (24.90)	85.60 (16.03)	-3.4***	42

Note. + = $p < .10$. * = $p < .05$, ** = $p < .01$, *** = $p < .001$. Standard Deviations appear in parentheses below means.

skills to conduct financial statement analysis on three companies in a selected industry and provide well-developed conclusions on how each company is positioned within the industry.

CURRICULUM CHANGES

In fall 2015, the faculty of GEB5878 and GEB5930 courses began the effort to change the level of MBA student financial analysis competence by embedding narrated, recorded presentations in the course content of the UWF online learning management system. This curricula covered how to complete a financial statement analysis, how to compute profitability, liquidity and leverage ratios and how to use the DuPont Formula to synthesize financial data to determine outcomes critical to business decisions. These virtual presentation vignettes provided the process framework for conducting the financial analysis. Students were required to view these presentations and take a quiz to show understating of how to apply the concepts and draw conclusions.

In addition to the recorded presentations, the faculty of the GEB5878 and GEB5930 hosted real-time virtual instructional sessions using a new, innovative video conferencing tool. These sessions using the video conferencing tool provided a platform for active teaching of the concepts including hands on demonstrations of the calculations. This online teaching time gave students the opportunity to ask questions and clarify understanding of the concepts. With the new instructional technologies in place, an evaluation of the performance of the MBA students was conducted to see if students' scores in the financial analysis components of the GEB5878 and GEB5930 courses improved.

METHODS

Research Design and Participants

This quasi-experimental, non-equivalent groups study used a quantitative approach with a posttest only assessment. The intervention for the experimental group consisted of the use of recorded, narrated financial presentations and the use of an innovative video conferencing tool for instruction for the fall 2015 sections of GEB5878 and GEB5930. The sample groups used for the study are MBA students who are enrolled in the program's GEB5878 and GEB5930 courses for the summer 2015 and fall 2015 semesters. This resulted in 44 respondents. Of these, 8 and 12 were enrolled in the summer and fall sections of GEB5878 classes respectively, and 11 and 13 were enrolled in the summer and fall sections of GEB5930 respectively.

Data Collection and Analysis

MBA student financial analysis scores from a medium sized southern university for the control (summer 2015) and experimental (fall 2015) courses were used in this study. Mean differences for the two groups were compared, for both courses, to test whether the intervention tested herein produced a significant effect.

Results

The results of the analysis of differences in means are summarized in Table 1. Overall the results of the tests using all respondents and respondents from the GEB5878 class were clear. The test of means was significant at the $p < .001$ and $p < .05$ level for both of these groups respectively. The GEB5930 group

failed to reach significance at the $p < .05$ level, yet it did reach significance at the $p < .10$ level. We believed that the $P < .05$ level was not reached, in this case, due to samples size limitations, as the overall effects, combining both classes, were significant at the $p < .001$ level. Taken as a whole, these results clearly support that the financial statement intervention had positive effects of the financial analysis performance of the students in this study.

Limitations

In order to determine the generalizability of the effects of course design discussed herein, further testing should to be performed. Additionally, sample size is a limitation of this study. The sample sizes in this study were relatively small for this type of analysis. A larger sample size would allow for a more robust test of the effect of the change. Additional data can be obtained from students who enrolled in the GEB5878 class in semesters prior to Summer 2015. These students would not have received the additional instruction on financial analysis. Data from future classes exposed to the additional financial information can be added to the initial sample until sufficient data can be gathered for more robust testing. In order to remove the confounding effects of cognitive ability and academic motivation, future analysis should use GRE (Graduate Record Exam) scores or undergraduate GPA as control variable proxies for cognitive ability.

CONCLUSIONS

The intent of the GEB5878 and GEB5930 courses is to build the foundational skills necessary to produce quality graduate level work in subsequent advanced courses requiring industry portfolio papers and multiple case analyses. In the UWF MBA curriculum, there is a heavy emphasis on financial data analysis and synthetization. This synthetization of data requires the student to move from lower levels of cognitive application to the more creative cognitive ones (Bloom, 1956, Anderson, 2001).

By instituting new pedagogical techniques into the two classes, students were able to develop better financial analysis skills. Specifically, the MBAs demonstrated an ability to synthesize the financial analysis data and draw appropriate conclusions from the information. Developing the skill of identifying organizations financial problems, including its strength and weaknesses demonstrates the synthetization skills discussed herein (White, 2010).

Shifting students from more passive learning to higher level cognitive activities, such as those presented herein, is challenging. But, as Moore (2011) notes, business programs should be pushing students toward the development of advanced critical thinking skills (i.e. educational interventions) to better prepare the graduate for the domains of a competitive and complex business environment.

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