

**A QUALITATIVE ANALYSIS OF STUDENT
ADVICE FROM ONLINE QUANTITATIVE
MBA COURSES**

**Blake A. Frank, University of Dallas, Irving, TX
Robert J. Walsh, University of Dallas, Irving, TX**

ABSTRACT

Online courses have been the subject of much research and analysis over the past 15 years. Course structure, faculty and student workload and the characteristics of the ideal student for an online course have all been topics of research, study and debate. This study examines the question of “what is the ideal online student?” An open-ended question administered with the final examination - “what advice would you give to a student entering this course?” – was answered by 378 MBA students (248 males, 130 females) at one southwestern United States university over a period of three years (2008-2011) in four different types of quantitative online courses taught by six different instructors. Each answer was scored using the English Regressive Imaginary Dictionary, a content analysis coding scheme designed to measure conceptual thinking based on certain key

words used in open-ended responses to questions. Statistically significant results found that students who ended the course with an excellent grade (A or A-) wrote longer responses to the open-ended question, showed more ability to be engaged with their instructor and other students in the course, had less need for structure and were able to take more responsibility for their performance in the course.

INTRODUCTION

Effective implementation of an online distance learning course involves many considerations, including those related to technology, pedagogy, faculty and students. In terms of considering the students taking a distance learning course, familiarity with technology as well as prior background in the subject area have both proven critical (for example, in undergraduate studies, see Bergin, 1983 and Gist et al., 1996 and for the MBA level Krausz, et al., 1999). Furthermore, personality characteristics of the students, such as extroverted, self-motivated and displaying good written communication skills have also shown to aid better achievement within the online course (Amitsal and Amitsal, 2008).

This paper extends the question of whether student characteristics help or hinder student performance in an online course. This paper is further motivated by the findings by some researchers that students do more poorly in online courses relative to on campus courses (see, for example, Wynegar and Fenster, 2009). In addition, other researchers have found that this disparity in grades and performance is even more pronounced in quantitative courses. As an example, Wynegar and Fenster (2009) found that lower grades in an online college algebra course, while Mensch (2010) noticed the same poor results in online accounting and business statistics courses.

Within four online Master of Business Administration courses - Introduction to Financial Accounting, Introduction to Managerial Accounting, Introduction to Statistics and Value-Based Marketing - students were asked an open-ended question: "What advice would

you give a student just entering the course?” The survey was administered over a three year period (2008-2011) using six different instructors. Using the English Regressive Imaginary Dictionary, keys words displaying the personality characteristics of extroversion, locus of control and pro-active thinking were summarized.

Results from this study show that students who received an excellent grade within the course (A or A-) wrote more in their advice to other students and used words which demonstrated encouragement to future students that would display characteristics of successful online learners – thinking abstractly and reflect on material, taking personal responsibility for course performance and being able to connect with other students and the course instructor through primarily written communication.

This paper is outlined as follows. Section two describes some of the literature about online learning. Section three discusses the hypotheses for this paper and the results. Section four offers a conclusion.

DISCUSSION OF THE LITERATURE

This section examines prior research and thinking of the burdens of online teaching and learning for the faculty and the students. It examines what researchers have discovered as some ideal characteristics for an online learner – being able to express themselves through written communication, being able to accept responsibility for course performance and being about to make connections within course material. In the next section, these ideals are summarized and tested in terms of the advice excellent students give to future students versus the advice of mediocre and poor students.

Online education in accounting over the past decade has seen dramatic growth, and researchers have examined these phenomena in a variety of ways (for reviews of the literature, see Bryant et al., 2005 and Watson, et al., 2003). Studies have examined the characteristics of a successful course and the burdens placed on the institution, faculty and students by online courses.

Characteristics of a successful online learner generally include the ability to interact with other students and the instructor(s).

Studies have examined the interaction and communications within a course, with a positive correlation between increased interaction and both student achievement and satisfaction (Roblyer and Wiencke, 2003). The almost exclusive emphasis on written communication may mean that students who are better writers or feel more confidence in their writing skills.

Research also shows that communication skills are critical to the online learner. Williams (2003) found that communication related skills dominated the top general competencies required for success in distance education. Powell (2000) described an online learner as someone who is very comfortable using written communication.

The burden of online courses is also a focal point of investigations (for example, see Palloff and Pratt (1999)). Students need to be self-directed and intrinsically motivated (Irizarry, 2002) as well as intelligent, emotionally stable, trusting, passive and conforming than other students (Biner, 1995). Within the course, students need to be engaged frequently and continuous over the entire course (Roblyer and Wiencke, 2003) and need to assume that engagement needs to be initiated by the student.

The online course is a very different educational experience for the student than a traditional on campus course. The lack of face-to-face meeting time with other students may mean less “peer-pressure” for the online student. The inability for the professor to directly and spontaneously question a student in class before numerous other classmates may mean the online student feels less motivation to stay current on the requirements for the course. Dille and Mezack (1991) report a positive correlation between success and student age. This positive correlation is presumably due, in part, to increased maturity and self-discipline.

Lastly, Simonson et al., 2002 showed that independence and autonomy theories are consistent with online learner achievement. Eastmond (1995) found that locus of control as well as more defined goals by distance learners were positively correlated to higher achievement

METHODOLOGY AND RESULTS

Over a period of three years (2008-2011), students from a large MBA program at a private university in the southwest US were surveyed at the end of a quantitative online course. At the end of the course, students were asked on the final exam a single, open-ended question – “What advice would you give to students entering this course?” Bonus points on the final exam (generally 2-5% of the final exam grade) were granted for attempting an answer (usually around 30 words, or one paragraph in length).

Four hypotheses were examined, comparing students’ advice from those who received excellent grades with those who received mediocre or poor grades. The English Regressive Imagery Dictionary (ERID) was used to sort and categorize the responses. The “ERID” (Martindale, 1975; 1990) is a content analysis coding scheme designed to measure certain key words which reflect the thoughts of the writer. The ERID is composed of about 3200 words and roots assigned to 29 categories of primary process cognition, 7 categories of secondary process cognition, and 7 categories of emotions.

Three of the seven secondary process cognition categories were considered important – would the students give advice which would encourage future students to interact with others, to engage in abstract thought and reflective learning, and to take responsibility for their own performance within the course.

The first question is whether excellent performing students are more expressive in written communication than mediocre or poor. To ascertain that any differences would not be simply based on gender differences, the breakdown of the gender of the respondents in total word count and word count by student per answer is found in Table 1 (no significant difference was noted):

Table 1: Gender Breakdown of Respondents by Total Word Count and by Individual Student Word Count

	Female	Male	
Total Words	6396		13871
Number of Students	130		248
Total per student	64.6*		64.8*

*Compared to the expected frequency based on the F vs. M proportions, the Chi-Square is a non-significant ($p=.8415$), 0.046848.

The first research question is whether students who performed excellently in the course were able to express themselves in written words better than students who received mediocre or poor grades. While there are various measures to be able to ascertain this, one way to calculate the word counts between each excellent student and mediocre/poor student.

This leads to the first hypothesis:

H1: Students who received an excellent grade in the course will write more words in their advice than students who received a mediocre or poor grade.

The results for H1 are in Table 2:

Table 2: Word Counts for Per Student Advice for Excellent versus Mediocre/Poor Students

	Excellent	Mediocre/Poor	
Total Words	12078		5072
Number of Students	256		122
Total per student	47.2*		42.0*

Hence, H1 is proven – students who are set to receive excellent grades wrote more than students who were to receive lesser positive marks. Excellent online students should also have the ability to communicate well – whether written or oral – and should be looking for way to reach out to their instructors and students for clarification, advice and feedback.

Another way to examine whether online students engage in greater levels of communication is through ERID's secondary measurement instrument called "social behavior." This measures words such as "say," "tell," and "call" which the advice being given such as "tell your professor" or "call another student" or "say something about..."

This leads to the second hypothesis:

H2: Students who received an excellent grade in the course will write more words giving advice for student to be more interactive with other students and the course instructor than students who received a mediocre or poor grade.

The results for H2 are found in Table 3:

Table 3: Word Counts for Per Student Advice Using Words Which Demonstrate Interaction with Other Students and the Professor for Excellent versus Mediocre/Poor Students

	Excellent	Mediocre/Poor	P-Value
Total Words	515	177	17.524
	0.001*		

*Statistically significant

Thus, H2 is proven – students with excellent grades give advice which encourages new students to reach out to others – other students as well as the instructor.

In addition to being able to communicate more in written communications and looking for ways to do that communication, excellent students in online courses should also be able to engage in abstract thought and reasoning – the ability to make connections between topics and knowledge in the course without the explicit help of the instructor.

The ERID uses a measure of "Secondary/Abstract Thought" which analyzed the words given in open-ended questions that demonstrate this ability to make linkages. Words like "know, thought, connect, reflect" are part of their dictionary in this area. Students will write things such as "connect the concept of journal entries to the balance sheet" or "think about the similarities of contra-asset accounts."

This leads to H3:

H3: Students who received an excellent grade in the course will write more words giving advice for student to engage in abstract thought than students who received a mediocre or poor grade.

The results for H3 are found in Table 4:

Table 4: Word Counts for Per Student Advice Using Words Which Demonstrate Abstract Thought and Reflective Thinking for Excellent versus Mediocre/Poor Students

	Excellent	Mediocre/Poor	P-Value	
Total Words	924	367		10.575
	0.014*			

*Statistically significant

Therefore, H3 is proven – students who are going to be receive an excellent grade in the course will give students advice on making connections between course materials more often than students who are going to be receiving less than excellent grades.

Lastly, ERID has a secondary measure for “locus of control” - or how much the student takes responsibility for his or her own work and actions within the course, as opposed to blaming the online format, the instructor or other students. Words action words such as “make,” “find,” and “work” are used. An online student will write in his/her advice “make (or find) time to do the homework” or “work on the course everyday.”

This leads to hypothesis 4:

H4: Students who received an excellent grade in the course will write more words giving advice for student to engage to accept responsibility for their own actions and performance in the course than students who received a mediocre or poor grade.

The results for H4 are found in Table 5, which again are statistically significant:

Table 5: Word Counts for Per Student Advice Using Words Which Show Acceptance of Course Performance/Locus of Control for Excellent versus Mediocre/Poor Students

	Excellent	Mediocre/Poor	P-Value	
Total Words	966	396		7.141
	0.048*			

*Statistically significant

CONCLUSION

This paper reports the results of a survey question given to students at the end of a quantitative online course at the MBA level.

An open-ended question administered with the final examination - “what advice would you give to a student entering this course?” – was answered by 378 MBA students (248 males, 130 females) at one southwestern United States university over a period of three years (2008-2011) in four different types of quantitative online courses taught by six different

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Future studies show continue to explore those characteristics that the successful online student demonstrates. While this was a single-open ended question, future research can use standard surveys which ask students to “rate” some of their strategies within the course, focusing on some of the items discussed here – such as written communication and locus of control. In addition, future efforts in this

area can also examine faculty strategies for student engagement and active thinking, and which strategies are most successful.

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About the Authors:

Blake A. Frank is Associate Professor of Management, College of Business, University of Dallas, Irving, TX 75062. He can be reached at bfrank@gsm.udallas.edu

Robert J. Walsh is Associate Professor of Accounting, College of Business, University of Dallas, Irving, TX 75062. He can be reached at rwalsh@gsm.udallas.edu