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TABLE OF CONTENTS

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Journal for Advancing Business Education

FROM THE EDITOR

Dear Reader,

More and more pieces submitted to the Journal for Advancing Business Education are related to experiential learning. Therefore, it makes sense to talk about the nature of experiential learning in business education and how it informs and shapes the Journal. Going beyond the classroom and seizing opportunities to build business and industry skills and seeing how the academic concepts learned apply in real-world situations are at the heart of the experiential approach and one of the primary pillars of the Journal. Such opportunities might include undertaking consulting projects, networking at industry-specific conferences, visiting companies, and listening to guest speakers.

Experiential learning is a hands-on form of learning that allows students to apply what they have learned in the classroom to real world challenges. With experiential learning students practice important skills and produce real outcomes for real stakeholders. Integrating real-world business and company challenges directly into the education process enables the students to acquire essential 21st century (job) skills for their work-life, such a critical thinking, communication, creativity, and collaboration (also known as the 4Cs). When used accordingly, this integrative learning approach develops relevant student skills, such as analytical, creative, decision-making, scheduling, communication, and social skills.

Experiential methods allow students to generate their own data and then analyze and use it. Experiential learning theories, such as David Kolb's learning cycle, show that personal experiences help cement the learning of theory and concepts. When employing experiential learning, the material is learned more completely and, thus, more available and usable from one's own personal knowledge repository. By moving the problems instead of the theory front-and-center makes this form of learning more enduring. These methods help create a stronger connection between theory and practice.

Over time, more and more experiential submissions have found their way to the Journal for Advancing Business Education. It is exciting to see that so many educators are embracing 21st century business education and are genuinely excited to use experiential tactics. We sincerely hope that, in the near future, more experiential work will be submitted to the Journal for Advancing Business Education and are thrilled to review these papers and help them be published and shared with the greater IACBE community of educators.

Thank you!

Christian Gilde
Managing Editor

Journal for Advancing Business Education

VOLUME 3, ISSUE 1

THE IMPACT OF ACCOUNTING CURRICULA ON THE ETHICAL DEVELOPMENT OF UNDERGRADUATE BUSINESS STUDENTS

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ABSTRACT

In this paper, the researcher examined the impact of accounting curricula on the ethical development of undergraduate business students. The researcher administered the Defining Issues Test version 2 (DIT2) instrument to undergraduate business students and compared their assessed level of ethical development according to their personal interest schema, maintaining norms schema, and postconventional schema scores. Participants were grouped according to major (accounting vs. business administration) and academic level (senior vs. non-senior). Students majoring in accounting outscored non-accounting business students at all levels. The findings suggest that accounting curricula contribute to the ethical development of young business professionals.

INTRODUCTION

The ethical development of future accounting professionals and accountants in the early stages of their career is of paramount importance for the future ethical integrity of the accounting profession and the business world (Duska et al., 2011). The highly visible ethical failures of some accountants and business professionals in recent years have been accompanied by increased regulatory activity and government oversight, as well as calls for renewed attention to effective ethics education and ethical training for young accounting and business professionals (West, 2018). A key consideration in the changing environment of institutions providing higher education in business, as well as their evolving accounting and business curricula, is the identification of the factors contributing to the ethical development of young business professionals. For example, Curtis et al. (2017) noted that increasing globalization contributes to confusion regarding ethics, intentions, and trust in business activity. Further, Shawver and Sennetti (2009) observed that studying measures of ethical sensitivity and factors contributing to increases in ethical sensitivity aid in establishing whether higher education institutions should teach ethics as a field of study.

Scholars have found that an array of factors impact the ethical development of young professionals. In examining factors impacting student ethical development, Combs (2004) found that level of education, completion of a religion/theological studies course, completion of an ethics course, and major area of study materially affected the assessed ethical judgments of study participants. Likewise, Saat et al. (2012) found that students who took a dedicated ethics course and subsequent practical ethics training demonstrated higher levels of ethical development than students who did not take a dedicated ethics course and subsequent practical ethics training. Flynn and Buchanan (2016) also found that formal ethics courses improved the ethical development of students. Combs (2004) and Saat et al. (2012) argued for the need for additional future research regarding the relationship between demographic factors and student ethical development. In addition, Combs (2004) argued for the need for additional future research regarding the relationship between students' religious preferences and the ethical development of students.

For faculty members teaching in accounting higher education, these findings in the literature, among others, further distill into a vital question: does accounting curricula improve the ethical development of young professionals? In this research project, the researcher sought to extend the body of knowledge relating to the factors that influence the ethical development of accounting and non-accounting business students. Specifically, the researcher examined the impact of major area of study (defined as a major in either accounting or non-accounting business administration) on the ethical development of undergraduate business students at a private, historically church-affiliated, IACBE-accredited university. This research was conducted as part of a doctoral dissertation study completed during Spring 2019 (Brock, 2019).

PROBLEM

The problem addressed by this study is how to better develop ethically responsible accountants and business leaders (Combs, 2004; Flynn & Buchanan, 2016; Saat et al., 2012; West, 2018). If unaddressed, the lack of understanding concerning the factors contributing to consistent and effective ethical education in the context of accounting and business higher education will

ultimately result in a failure to mitigate the continued financial statement fraud and ethical integrity issues faced by the accounting profession and the larger business world (Flynn & Buchanan, 2016; Saat et al., 2012; West, 2018). In the present study, the researcher sought to address this problem by investigating the impact of major area of study (defined as a major in either accounting or non-accounting general business) on the ethical development of undergraduate business students at a private, historically church-affiliated, IACBE-accredited university.

REVIEW OF THE LITERATURE

Jeffrey (1993) investigated the ethical development of accounting students, non-accounting business students, and liberal arts students using the DIT instrument. Jeffrey (1993) found that the ethical development of students majoring in accounting was greater than the ethical development of students majoring in non-accounting business areas. Sweeney and Costello (2009) examined the relationship between the perceived moral intensity of a situation and identification of an ethical dilemma, ethical judgment, and ethical intentions in undergraduate accounting and non-accounting business students. Sweeney and Costello (2009) found that a significant difference existed between accounting and non-accounting students. Specifically, Sweeney and Costello (2009) found that accounting students demonstrated a greater likelihood of identifying an ethical dilemma compared with non-accounting business students. Accounting students also demonstrated higher mean scores in the areas of ethical judgment and ethical intention than non-accounting majors (Sweeney & Costello, 2009).

In addition, researchers have considered the question of whether the value systems of students majoring or planning to major in accounting are different from the value systems of non-accounting majors (Baker, 1976). Baker (1976) studied the differences in value systems between accounting and non-accounting majors and found statistically significant differences between accounting and non-accounting undergraduate students regarding the value-related variables of a comfortable life, a world of beauty, wisdom, ambitious, clean, imaginative, family security, and responsible. While the differences between the value systems of accounting and non-accounting majors Baker (1976) identified are significant, Baker (1976) acknowledged that the study results were inconclusive regarding whether the value system of accounting majors is altogether different from that of non-accounting majors. Abdolmohammadi and Baker (2006) conducted a similar study examining the relationship between the personal values and moral reasoning processes of graduating accounting majors at two universities in the United States. Abdolmohammadi and Baker (2006) found research participants who prefer values emphasizing conformity have lower levels of assessed moral reasoning compared with those participants who prefer values that do not emphasize conformity.

Researchers have also examined the ethical sensitivity of business students in comparison to students in other major fields of study (Ozdogan & Eser, 2007). Ozdogan and Eser (2007) examined the level of variance in the ethical sensitivity of students according to their demographic characteristics of gender, age, family income, college major, grade level, and whether students were pursuing degrees at state or private colleges and universities. Ozdogan and Eser (2007) found statistically significant differences in the research participants' level of ethical sensitivity only in

relation to gender and major field of study. Ozdogan and Eser (2007) found that business students had lower levels of ethical sensitivity compared with students pursuing other major areas of study.

More recently, Irsyadillah and Lasyoud (2018) explored the contribution of accounting education to ethical maturity through use of focus groups composed of accounting students immediately following their completion of an introductory financial accounting course in Indonesia. Interestingly, Irsyadillah and Lasyoud (2018) found that, while accounting education shaped the ethical values of students, it failed to develop their ethical maturity because it instilled students with only a single ethical perspective focused on prioritizing shareholder interests in decisions. Likewise, Flynn, Deno, and Buchan (2019) found that accounting curricula did not contribute sufficiently to the ethical development of accounting students. Specifically, Flynn, Deno, & Buchan (2019) conducted their research using the DIT2 and found that ethics instruction in the context of accounting curricula should better reflect the complexities involved in ethical decision making.

Mladenovic, Martinov-Bennie, and Bell (2019) examined business students' reflections on the development of their own ethical understanding in the context of a first-year accounting course. Mladenovic, Martinov-Bennie, and Bell (2019) found that participants developed more sophisticated understandings of ethical issues in a variety of business-related contexts and an enhanced appreciation for stakeholder considerations in various decisions. Further, Mladenovic, Martinov-Bennie, and Bell (2019) found that these advances in ethical development were attributable to course design elements, including real-world case scenarios, the use of multi-perspective ethical decision-making frameworks, reflections, and group-based assignments facilitating collaborative learning processes. In their research, Christensen, Cote, and Claire (2018) examined in the impact of two distinct approaches to ethics instruction in the context of accounting degree programs on the ethics-related behavioral choices of accounting students. Christensen, Cote, and Claire (2018) found that students in cohorts exposed to traditional accounting curricula reflecting the integrated approach to ethics instruction exhibited consistent unethical behavior while students participating in a cohort exposed to a specific ethics-focused pedagogical intervention in the form of Giving Voice to Values instruction did not exhibit consistent unethical behavior.

METHODOLOGY AND DESIGN

The study examined the relationship between personal ethical beliefs and judgments and choice of major. The researcher employed the Defining Issues Test (DIT2) as an ethical questionnaire to examine the relationship between personal ethical beliefs and ethical judgments (CSED, 2017). Christensen et al. (2016) noted that the moral reasoning skills of accounting students have been investigated by numerous researchers using the DIT2. The DIT2 constitutes an instrument useful for activating the moral schemas of survey participants and assessing activated schemas on the basis of importance judgments (CSED, 2017; Shawver & Sennetti, 2009). The DIT2 consists of five ethical dilemmas and required approximately 45 minutes for completion (CSED, 2017).

Accordingly, the researcher administered the DIT2 to a sample of 103 participants majoring in accounting and non-accounting business areas. The researcher took a sample consisting of undergraduate freshmen, sophomore, junior, and senior students majoring in

accounting or non-accounting business administration from a private university in the southeastern United States. Student participants were limited to traditional, in-seat students enrolled in accounting and non-accounting business programs at the selected research site and did not include non-traditional students studying through satellite campuses or online campuses affiliated with the selected research site.

The selected research site is not currently church-supported but is historically affiliated with the Southern Baptist Convention. The selected research site is institutionally accredited by the Southern Association of Colleges and Schools to award associate, baccalaureate, masters, education specialist and doctoral degrees. Its business programs are programmatically accredited by the IACBE. The selected institution awards degrees in accounting and non-accounting business concentrations at the associates, baccalaureate, masters, and doctoral levels. Because many students enter the accounting profession and other business professions after completion of a baccalaureate degree and advance to graduate-level study later in their careers, this study was limited to students enrolled in undergraduate accounting and non-accounting business administration programs. Due to an existing partnership between the University of Alabama's Center for the Study of Ethical Development (CSED) and online survey platform Survey Monkey, the DIT2 survey instrument was completed by research participants using an online format (CSED, 2017b). Accordingly, research participants completed the DIT2 online through Survey Monkey (CSED, 2017b). Following the administration of the DIT to participants, the researcher employed Chi-Square analysis to determine the relationship between choice of major and the ethical development of accounting and non-accounting business students at church-affiliated colleges and universities (Creswell, 2014; Ravid, 1994).

The Defining Issues Test

The DIT2 presents students with five hypothetical ethical dilemmas involving twelve specific issues (Bebeau & Thoma, 2003). The survey participant is asked to review each ethical dilemma and to rate and rank the relevant issues according to the participant's assessment of their relative importance (Bebeau & Thoma, 2003). The DIT2 categorizes survey participants' responses into three moral schemas (Bebeau & Thoma, 2003). The DIT2 moral schemas include the Personal Interest Schema (Stage 2/3), the Maintaining Norms Schema (Stage 4), and the Postconventional Schema (P score or Stage 5/6) (Bebeau & Thoma, 2003). The research participants' rankings are employed to assess the percent of responses in each stage used in resolving the relevant moral dilemmas (Bebeau & Thoma, 2003). These schemas gage the maturity of concepts of social justice in study participants as a proxy for moral development (Bebeau & Thoma, 2003).

The P score, or Postconventional Schema score, constitutes a mathematical sum of the DIT2 stage scores (5A, 5B, and 6 discussed below) representing postconventional moral thinking (Bebeau & Thoma, 2003). Postconventional moral thinking refers to the level of moral development at which an individual understands that the rules, roles, laws, and institutions framing society must serve some sharable ideal of cooperation (Rest et al., 1999b). This level of moral development represents an advance from conventional moral thinking, which evidences awareness of the societal system in which individuals relate to one another through laws, rules, standards, roles, and institutions (Rest et al., 1999b). Historically, researchers have reported data in terms of the participants' P scores (Bebeau & Thoma, 2003; Combs, 2004). Bebeau and Thoma (2003) observed that the P score constitutes the "proportion of items selected that appeal to

postconventional moral frameworks for making decisions" (p. 18). While the P score was employed as the primary determinant for hypothesis testing in the present study, all three schemas reflected in the DIT2 were analyzed. Taken together, all three schema scores present a more holistic means of assessing moral development than evaluation of the P score alone (Bebeau & Thoma, 2003; Combs, 2004). However, because the three schemas sometimes present conflicting evidence and represent different stages of moral development, the researcher followed the historical trend of employing the P score alone for purposes of hypothesis testing (Bebeau & Thoma, 2003; Combs, 2004).

Bebeau and Thoma (2003) provide a brief but useful description of each of the developmental indices inherent in the DIT2. Descriptions of the three schemas employed for hypothesis testing in the present study are the following:

> Personal Interest Schema score represents the proportion of items selected that appeal to Stage 2 and Stage 3 considerations. Stage 2 considerations focus on the direct advantages to the actor and on the fairness of simple exchanges of favor for favor. Stage 3 considerations focus on the good or evil intentions of the parties, on the party's concern for maintaining friendships and good relationships, and maintaining approval. Maintaining Norms Schema Score represents the proportion of items selected that appeal to Stage 4 considerations. Stage 4 considerations focus on maintaining the existing legal system, maintaining existing roles, and formal organization structure. Postconventional Schema Score represents the proportion of items selected that appeal to Stage 5 and Stage 6 considerations (Bebeau & Thoma, 2003, pp. 18-19).

Bebeau and Thoma (2003) further described Stage 5 considerations as considerations which "focus on organizing a society by appealing to consensus-producing procedures (such as biding by majority vote), insisting on due process (giving everyone his day in court), and safeguarding minimal basic rights" (p. 19). Stage 6 considerations are those considerations that "focus on organizing social arrangements and relationships in terms of intuitively appealing ideals" (Bebeau & Thoma, 2003, p. 19).

Reliability and Validity

Researchers have assessed the validity of the DIT in over 400 published studies (Rest et al., 1999). Regarding differentiation of various age and educational groups, studies employing the DIT with large composite samples show that between 30% and 50% of the variance between research participant DIT scores is attributable to the level of education in the sample (CSED, 2017c). The studies referenced by the CSED (2017c) regarding the variance of DIT score attributable to level of education contained study participants with educational levels ranging from junior-high education up to the Ph.D. level.

In addition, the CSED (2017c) indicated that DIT scores are significantly related to cognitive capacity measures of moral comprehension, as the correlation coefficient of the relationship is equal to .60. DIT scores are also significantly related to the recall and reconstruction of postconventional moral arguments (CSED, 2017c). Moreover, DIT scores are significantly related to Kohlberg's measure (CSED, 2017c). DIT scores have also been shown to relate to other cognitive-development measures, albeit to a lesser degree than the previous measures described (CSED, 2017c).

Furthermore, DIT scores are sensitive to moral education interventions and are significantly related to prosocial behaviors and desire professional decision-making (CSED, 2017c). The CSED (2017c) noted that one study found that 37 out of 47 measures in the DIT were determined to be statistically significant with regard to prosocial behaviors and desire professional decision making. In addition, the DIT is equally valid for both male and female research participants (Rest et al., 1999). Finally, Cronbach's alpha for the DIT is in the upper .70s/low .80s (CSED, 2017c).

Norms for DIT2

The Center for the Study of Ethical Development at the University of Alabama (and previously the University of Minnesota) maintains a database of DIT2 usage that facilitates the establishment of DIT2 Norms. The Center for the Study of Ethical Development has described several goals of this DIT2 database (Bebeau & Thoma, 2003). First, the Center for the Study of Ethical Development sought to develop a database that would include consistent scoring and reporting of DIT2 scores (Bebeau & Thoma, 2003). Further, the database should facilitate the establishment of a sufficiently large pool of respondents across various age and educational levels (Bebeau & Thoma, 2003). Finally, the database should enable reliance on research participant responses to a consistent set of questions for the purpose of gathering and assessing demographic data and sorting participant responses into classes of interest to researchers (Bebeau & Thoma, 2003).

A foundational effort to generate normative information for DIT2 schema scores is found in Bebeau et al.'s (2003) work. As part of their effort, Bebeau et al. (2003) articulated the norms for means and standards deviations related to each moral schema score by level of education, gender, and political orientation The norms established in Bebeau et al. (2003) for freshman, sophomore, junior, and senior students are displayed below in Table 1. Normative means and standard deviations are displayed for each education level and are groups according to Personal Interest, Maintaining Norms, and Postconventional Schema scores (Bebeau et al., 2003).

Table 1

Normative DIT2 Means and Standard Deviations for Schema Scores by Educational Level

	Schema Score					
	Personal Interest (Stage 2/3)		Maintaining Norms (Stage 4)		Postconventional (P score)	
Educational Level	Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation
Freshman	28.53	12.32	33.57	12.96	32.32	13.92
Sophomore	29.27	12.35	32.36	13.62	32.62	14.77
Junior	27.36	12.77	32.93	13.59	34.45	15.57
Senior	24.8	12.53	32.4	14.01	37.84	15.44

Note: Bebeau & Thoma, 2003, p. 35

RESEARCH QUESTIONS & HYPOTHESES

This research examined the following questions:

Q1: Will the ethical development of senior accounting students be greater than the ethical development of senior business administration students?
Q2: Will the ethical development of non-senior accounting students be greater than the ethical development of non-senior business administration students?

In connection with these identified research questions, the following directional hypotheses related to the research questions stated above were considered:

$H1_0$: the ethical development of senior accounting students will not be greater than the ethical development of senior business administration students.
$H1_A$: the ethical development of senior accounting students will be greater than the ethical development of senior business administration students.
$H2_0$: the ethical development of non-senior accounting students will not be greater than the ethical development of non-senior business administration students.
$H2_A$: the ethical development of non-senior accounting students will be greater than the ethical development of non-senior business administration students.

RESULTS

In the following discussion and presentation of results, the researcher examines the response rate and demographics of study participants. Following this, findings concerning the research questions (Q1 and Q2) and tests of the study null hypotheses and alternative hypotheses ($H1_0$, $H1_A$, $H2_0$, and $H2_A$) are presented. Finally, a discussion of study limitations is presented.

Response Rate Analysis

In the present study, 103 participants from a total population of 122 students (84.42%) completed the DIT2 survey and demographic questions. Out of the 103 participants completing the DIT2, the responses of 24 students failed reliability tests and one student completing the remainder of the DIT2 failed to report a major area of study (accounting or business administration). Consequently, the resulting data set consisted of 78 usable responses, representing 63.93% of the target student population. All levels of usable responses received were suitable for statistical analysis.

The researcher administered the DIT2 online through the Survey Monkey online survey platform to students enrolled in accounting and business administration courses at the selected university. Courses selected for study participation ranged from Principles of Accounting II, Microeconomics, and Business Statistics (courses typically containing a relatively high percentage of freshmen and sophomore accounting and non-accounting business administration students) to upper-division accounting and business administration courses, including Accounting Information Systems, Advanced Accounting, Accounting Theory, Business Communications, and a senior-

level special topics course concerning Career and Faith. Some instructors of participating courses chose to offer bonus points to students electing to participate in the study while other instructors chose to assign the survey as a graded course assignment. Instructors of courses choosing to offer bonus points or treat the survey as a course assignment agreed to offer students an alternative bonus point activity or assignment for the equivalent point value in order to ensure that participation in the survey remained voluntary.

Demographic Analysis

General demographic information concerning sample data is presented in Table 2. The sample for the present study included 47 males (60.26%) and 31 females (39.74%). The age of study participants ranged from 18 to 51 years of age. The mean age of study participants was 23.27 years old. The sample data regarding the age of study participants was bimodal, with assessed modes of 20 and 21 years of age (16 occurrences each). The median age was 21 years of age. Notably, 13 of the study participants (16.67%) were over the age of 23. Regarding education level, 34 (43.59%) of the study participants were ranked academically as seniors, while 27 (34.62%) were ranked academically as juniors, 13 (16.67%) were ranked academically as sophomores, and 4 (5.13%) were ranked academically as freshmen. Accordingly, the majority of study participants (61 participants, or 78.21%) were ranked as upperclassmen nearing completion of their respective academic programs while 17 participants (21.79%) were ranked as underclassmen just beginning or relatively early in their academic programs of study.

Forty-eight students (61.54%) in the sample were undergraduate accounting majors, while 30 students (38.46%) were non-accounting business administration majors. Of the accounting majors, 22 (45.83%) were seniors, while 13 were juniors (27.08%), 10 were sophomores (20.83%), and 3 were freshmen (6.25%). Of the non-accounting business administration majors, 12 (40.00%) were seniors, while 14 were juniors (46.67%), 3 were sophomores (10%), and one student was ranked as a freshman (3.33%). The split between upperclassman and underclassman observed in the total population was reflected in the individual majors, with 72.92% of accounting majors ranking as upperclassmen and 86.67% of non-accounting business administration majors ranking as upperclassmen.

Table 2

Demographic Information

Category	Composite Scale	
	N	%
Population Size	122	
Sample Size	78	63.93%
Gender		
Male	47	60.26%
Female	31	39.74%
Age		
18	2	2.56%
19	11	14.10%
20	16	20.51%
21	17	21.79%
22	13	16.67%
23	6	7.69%
Over 23	13	16.67%
Education Level		
Senior	34	43.59%
Junior	27	34.62%
Sophomore	13	16.67%
Freshman	4	5.13%
Major		
Accounting	48	61.54%
Non-Accounting Business	30	38.46%

Research Question Q1 & Hypothesis 1 ($H1_0$)

Research question Q1 asks will the ethical development of senior accounting students be greater than the ethical development of senior business administration students? In response to Q1, $H1_0$ states that the ethical development of senior accounting students will not be greater than the ethical development of senior business administration students. The composite data indicate that the mean DIT2 schema scores (found in Table 3) for senior accounting majors were 26.10 (std. dev. 10.36) for the Personal Interest schema, 38.67 (std dev. 14.47) for the Maintaining Norms schema, and 28.95 (std. dev. 9.99) for the P score. The mean DIT2 schema scores for senior

business administration majors were 27.83 (std. dev. 11.52) for the Personal Interest schema, 42.67 (std dev. 9.35) for the Maintaining Norms schema, and 22.83 (std. dev. 9.51) for the P score.

Table 3

DIT2 Means and Standard Deviations for Schema Scores by Major (Seniors Only)

	Schema Score					
	Personal Interest (Stage 2/3)		Maintaining Norms (Stage 4)		Postconventional (P score)	
Major Area of Study	Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation
Accounting (N = 22)	26.10	10.36	38.67	14.47	28.95	9.99
Business Administration (N = 12)	27.83	11.52	42.67	9.35	22.83	9.51
Chi Square	23.76[a]		30.715[b]		53.159[c]	
df	34		32		32	
Asymp. Sig.	0.905		0.532		0.011	

a. For significance at the .05 level, chi square ≥ 37.65; distribution is not significant
b. For significance at the .05 level, chi square ≥ 46.19; distribution is not significant
c. For significance at the .05 level, chi square ≥ 46.19; distribution is significant

The mean Personal Interest and Maintaining Norms schema scores were relatively lower for senior accounting majors compared with senior business administration majors, indicating that senior accounting majors exhibited a superior level of ethical development regarding Stage 2/3 and Stage 4 compared with senior business administration majors. Senior accounting majors exhibited a higher mean P score than that of senior business administration majors, indicating that senior accounting majors exhibited a superior level of ethical development regarding the Postconventional schema score compared to senior business administration majors. The chi-square values were 23.76 (df 34) for the Personal Interest schema, 30.715 (df 32) for the Maintaining Norms schema, and 53.159 (32 df) for the P score. Accordingly, the ethical development of senior accounting students was greater than the ethical development of senior business administration students and $H1_0$ is rejected.

Alternative Hypothesis 1 ($H1_A$)

$H1_A$ states that the ethical development of senior accounting students will be greater than the ethical development of senior business administration students. As displayed in Table 3, the mean P scores of senior accounting students in the present study are higher than the mean P scores of senior business administration students. Further, the mean Personal Interest and Maintaining Norms schema scores of senior accounting majors are lower than those of senior business administration majors. Accordingly, the alternative hypothesis ($H1_A$) is accepted.

Research Question Q2 & Hypothesis 2 ($H2_0$)

Research question Q2 asks will the ethical development of non-senior accounting students be greater than the ethical development of non-senior business administration students? In response to Q2, $H2_0$ states that the ethical development of non-senior accounting students will not be greater than the ethical development of non-senior business administration students. The composite data indicate that the mean DIT2 schema scores (found in Table 4) for non-senior accounting majors were 32.67 (std. dev. 12.87) for the Personal Interest schema, 34.74 (std dev. 15.74) for the Maintaining Norms schema, and 28.07 (std. dev. 12.96) for the P score. The mean DIT2 schema scores for non-senior business administration majors were 33.78 (std. dev. 9.35) for the Personal Interest schema, 33.78 (std dev. 15.66) for the Maintaining Norms schema, and 24.00 (std. dev. 12.19) for the P score.

As the data in Table 4 demonstrate, the mean schema scores are not consistent. The mean Personal Interest schema score was relatively lower for non-senior accounting majors compared with non-senior business administration majors, indicating that non-senior accounting majors exhibited a superior level of ethical development regarding Stage 2/3 compared with non-senior business administration majors. However, the mean Maintaining Norms schema score was relatively higher for non-senior accounting majors compared with non-senior business administration majors, indicating that non-senior accounting majors exhibited an inferior level of ethical development regarding Stage 4 compared with non-senior business administration majors. Non-senior accounting majors exhibited a higher mean P score than that of non-senior business administration majors, indicating that non-senior accounting majors exhibited a superior level of ethical development regarding the Postconventional schema score compared to non-senior business administration majors. The chi-square values were 18.958 (df 18) for the Personal Interest schema, 19.861 (df 21) for the Maintaining Norms schema, and 20.496 (21 df) for the P score. Accordingly, the ethical development of non-senior accounting students was greater than the ethical development of non-senior business administration students and $H2_0$ is rejected.

Alternative Hypothesis 2 ($H2_A$)

$H2_A$ states that the ethical development of non-senior accounting students will be greater than the ethical development of non-senior business administration students. As displayed in Table 4, the mean P scores of non-senior accounting students in the present study are higher than the mean P scores of non-senior business administration students. Further, the mean Personal Interest schema score of non-senior accounting majors is lower than that of non-senior business administration majors while the mean Maintaining Norms schema score of non-senior accounting majors is higher than that of non-senior business administration majors. Accordingly, the alternative hypothesis ($H2_A$) is accepted.

Table 4

DIT2 Means and Standard Deviations for Schema Scores by Major (Non-Seniors Only)

	Schema Score					
	Personal Interest (Stage 2/3)		Maintaining Norms (Stage 4)		Postconventional (P score)	
Major Area of Study	Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation
Accounting (N = 26)	32.67	12.87	34.74	15.74	28.07	12.96
Business Administration (N = 18)	33.78	9.35	33.78	15.66	24.00	12.19
Chi Square	18.958[a]		19.861[b]		20.496[c]	
df	18		21		21	
Asymp. Sig.	0.394		0.53		0.49	

a. For significance at the .05 level, chi square ≥ 28.87; distribution is not significant

b. For significance at the .05 level, chi square ≥ 32.67; distribution is not significant

c. For significance at the .05 level, chi square ≥ 32.67; distribution is not significant

Limitations of Study

Several limitations exist regarding the present study. First, all of the possible factors impacting the ethical development of undergraduate accounting and non-accounting business administration students cannot be evaluated in a single study. In addition, students participating in the study may not have been familiar with the particular issues presented in the DIT2 scenarios; unfamiliarity with the issues presented in the DIT2 scenarios may have affected participant responses. A further limitation applicable to the present study is the question of transfer vs. non-transfer students participating in the study. This factor was also identified in Combs's (2004) work and constituted a considerable limitation on the study results. Students studying at other colleges and universities prior to transferring to the university selected for the present study would be exposed to a variety of factors that may have affected their responses to the DIT2 questions. Variability among the accounting and business curricula may have exacted a considerable impact on students' ethical development.

Additionally, the homogeneity of the sample in the present study may have affected the study results and thus constitutes a material limitation. All study participants were students enrolled in accounting and non-accounting business administration programs at the same private university. Because the university is a private, regional university holding IACBE-accreditation, located in a rural setting in the southeastern United States, and historically church-affiliated, a student's choice to study at the particular university selected for the present study may be a reflection of the student's particular ethical orientation. Furthermore, the interaction of variables inherent to the present study may contribute to participant responses but are not reflected in hypothesis testing. Demographic variables, including gender, marital status, race and ethnicity, and geographic origin, may interact to affect the study participants' responses. Further, environmental variables, including socioeconomic status, students' cultural backgrounds, and

timing of survey execution, as well as situational variables, including geographic differences between colleges and university campuses and student religiosity, may also interact to affect the study participants' responses.

Selection bias may exist for two reasons. First, students selected for the study chose to study at a private liberal arts university. The ethical development of students studying at private liberal arts colleges and universities may differ significantly from the ethical development of students studying at large, state-supported research universities. Further, students selected for the study are either accounting majors or non-accounting business majors. A selection bias may exist due to the inherent differences in student personalities motivating them to become accounting majors or non-accounting business majors.

DISCUSSION AND IMPLICATIONS FOR PRACTICE

The study findings support the conclusion that a student's choice of major (accounting vs. non-accounting business administration) was materially related to the student's assessed level of ethical development. The findings concerning both Q1 and Q2 indicated that accounting majors at both the senior and non-senior academic levels demonstrated superior mean schema scores compared with non-accounting business administration majors at the same grade levels and, accordingly, demonstrated higher assessed levels of ethical development. These findings indicate that exposure to accounting curricula has a positive impact on a student's ethical development across grade levels during undergraduate studies. The study findings concerning Q1 and Q2 are also consistent with the findings of other studies (Jeffrey, 1993; Ponemon & Glazer, 1990). The reader should note, however, the study findings concerning the P scores of accounting majors compared with non-accounting majors are inconsistent. Holt and Jeffrey (1991), Fisher and Sweeney (1998), and Lampe and Finn (1994) found that accounting majors had lower mean P-scores compared with non-accounting business majors. Thus, additional research regarding the impact of a student's choice of major is warranted.

Ethics-related crises in the accounting profession and the business world at large have generated enormous concern for the ethical integrity of the accounting profession and business leaders. Congress has passed legislation radically overhauling the regulatory environment of public companies and the Certified Public Accountants who audit them. Notably, Congress passed the Public Company Reform and Investor Protection Act of 2002, better known as the Sarbanes-Oxley Act of 2002 (or SOX), as a direct response to the ethical failures and corporate scandals of late 1990s and early 2000s (Lang et al., 2010). Sarbanes-Oxley increased the ethical responsibility of corporate executives, requiring the Chief Executive Officers and Chief Financial Officers of public companies to certify the correctness of their financial statements and related financial statement disclosures and to certify that their financial statements and disclosures fairly present, in all material respects, the operations and financial condition of the companies they lead (H.R. 3763, 2002). In addition, Sarbanes Oxley also established the Public Company Accounting Oversight Board, which regulates the professional activities of CPAs serving as independent financial statement auditors (H.R. 3763, 2002).

More recently, Congress enacted the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, better known as the Dodd-Frank Act of 2010, in response to the ethical failures and other conditions inherent to the financial crisis that began in 2007 (H.R. 4173, 2010).

The Dodd-Frank Act generated significant changes in banking regulation, consumer finance, the regulation of financial planners, financial reporting and governance, the financial markets, and the securities laws (H.R. 4173, 2010). Both Sarbanes-Oxley and Dodd-Frank have exacted significant changes in the accounting profession and the overall business environment and have highlighted the regulatory and legal attention focused on the ethical conduct of accountants and auditors.

Factors influencing the ethical development of young accountants are important for a variety of reasons. First, as previously noted, accounting faculty members and higher education institutions are under increasing pressure to train accountants who are not only technically skilled to be able to succeed in a complex and ever-changing professional environment but are also prepared for the equally complex and challenging ethical scenarios they will encounter as young professionals. An improved understanding of the factors contributing to their ethical development should facilitate improvements in ethics-based outcomes for accounting higher education as well as ethics-related continuing professional education programs.

Further, the value of higher education has experienced a notable recent increase in criticism (Newton, 2019; Zamudio-Suarez, 2019). The findings of the present study indicate that a student's choice of major area of study has a material impact on the student's ethical development. Particularly, the study findings indicate that students choosing to major in accounting demonstrate higher levels of ethical development than students who elect to major in non-accounting business administration. Accordingly, one can assume that exposure to accounting curricula has a positive impact on the ethical development of young professionals, and, thus, accounting higher education has a positive impact on the ethical development of young professionals.

REFERENCES

Abdolmohammadi, M., & Baker, C. (2006). Accountants' value preferences and moral reasoning. *Journal of Business Ethics*, *69*(1), 11–25. https://doi.org/10.1007/s10551-006-9064-y

ACFE (Association of Certified Fraud Examiners) (2018). *Code of ethics.* http://www.acfe.com/code-of-ethics.aspx

Baker, C. R. (1976). An investigation of differences in values: Accounting majors vs. nonaccounting majors. *Accounting Review*, *51*(4), 886–893. http://www.aaapubs.org/loi/accr?code=aaan-site

Bean, D. F., & Bernardi, R. A. (2005). Accounting ethics courses: A professional necessity. *CPA Journal*, *75*(12), 64–65. https://www.cpajournal.com/

Bebeau, M. J., Maeda, Y., & Tichy-Reese, M. (2003, March). *DIT2: Moral schema norms by level of education, gender, and political orientation*. Paper presented at the Association for Practical and Professional Ethics, Charlotte, NC.

Bebeau, M. J., & Thoma, S. J. (2003). *Guide for the DIT-2: A guide for using the defining issues test, version 2 ('DIT-2') and the scoring service of the Center for the Study of Ethical Development of the University of Minnesota*. University of Minnesota.

Brock, J. J. (2019). *An empirical investigation of the ethical development of accounting and business students* (Publication No. 13917197) [Doctoral Dissertation, University of the Cumberlands]. ProQuest Dissertations and Theses Global.

Christensen, A., Cote, J., & Latham, C. (2016). Insights regarding the applicability of the Defining Issues Test to advance ethics research with accounting students: A meta-analytic review. *Journal of Business Ethics*, *133*(1), 141–163. https://doi.org/10.1007/s10551-006-9064-y 10.1007/s10551-014-2349-7

Christensen, A., Cote, J., & Claire, K. L. (2018). Developing ethical confidence: The impact of action-oriented ethics instruction in an accounting curriculum. *Journal of Business Ethics, 153*(4), 1157-1175. http://dx.doi.org/10.1007/s10551-016-3411-4

Combs, M. D. (2004). *The ethical development of accounting students and non-accounting business students at church affiliated liberal arts colleges: An empirical investigation* (Doctoral dissertation). Argosy University/Sarasota, Sarasota, Florida.

Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). Sage.

CSED (Center for the Study of Ethical Development, The University of Alabama). (2017). *About the DIT.* http://ethicaldevelopment.ua.edu/about-the-dit.html

CSED (Center for the Study of Ethical Development, The University of Alabama). (2017b). *Ordering, setup, and scoring for the online version of the DIT or DIT2.* http://ethicaldevelopment.ua.edu/online-ordering--administration.html

CSED (Center for the Study of Ethical Development, The University of Alabama). (2017c). *Indicators of validity.* http://ethicaldevelopment.ua.edu/indicators-of-validity.html

Curtis, M. B., Vinson, J. M., Conover, T. L., Lucianetti, L., & Battista, V. (2017). National culture and ethical judgment: A social contract approach to the contrast of ethical decision making by accounting professionals and students from the U.S. and Italy. *Journal of International Accounting Research*, *16*(2), 103-120. https://doi.org/10.2308/jiar-51824

Duska, R., Duska, B.S., & Ragatz, J.A. (2011). *Accounting ethics, 2nd ed.* [Kindle DX Version]. Wiley-Blackwell.

Fisher, D. G., & Sweeney, J. T. (1998). The relationship between political attitudes and moral judgment: Examining the validity of the Defining Issues Test. *Journal of Business Ethics, 17*(8), 905–920.

Flynn, L., & Buchan, H. (2016). Changes in student moral reasoning levels from exposure to ethics interventions in a business school curriculum. *Journal of Business & Accounting*, *9*(1), 116–125.

Flynn, L., Deno, C. F., & Buchan, H. (2019). Consistency of Ethical Analysis among Accounting Students. *Journal of Business & Accounting*, *12*(1), 124–132.

Holt, D., & Jeffrey, C. (1991). Ethical development of accounting students, business students, and liberal arts students. Working Paper, Iowa State University.

H.R. 3763, 107th Cong., (2002). https://www.congress.gov/bill/107th-congress/house-bill/3763

H.R. 4173, 111th Cong., (2010). https://www.congress.gov/bill/111th-congress/house-bill/4173/text

Irsyadillah, I., & Lasyoud, A. A. (2018). Does accounting education develop ethical maturity? evidence from Indonesia. *Accounting and Management Information Systems, 17*(3), 462-483. http://dx.doi.org/10.24818/jamis.2018.03007

Jeffrey, C. (1993). Ethical development of accounting students, non-accounting business students, and liberal arts students. *Issues in Accounting Education*, *8*(1), 86–96. http://aaajournals.org/loi/iace?code=aaan-site

Lampe, J. C., & Finn, D. W. (1994). Teaching ethics in accounting curricula. *Business & Professional Ethics Journal*, *13*(1/2), 89.

Lang, T. K., Hall, D., & Jones, R. C. (2010). Accounting student perceptions of ethical behavior: Insight into future accounting professionals. *Academy of Educational Leadership Journal*, *14*(2), 1–11.

Mladenovic, R., Martinov-Bennie, N., & Bell, A. (2019). Business students' insights into their development of ethical decision-making. *Journal of Business Ethics, 155*(1), 275-287. http://dx.doi.org/10.1007/s10551-017-3523-5

Newton, D. (2019). *Please stop asking whether college is worth it.* https://www.forbes.com

Ozdogan, F. B., & Eser, Z. (2007). Ethical sensitivity of college students in a developing country: Do demographic factors matter?. *Journal of Teaching in International Business*, *19*(1), 83–99. https://doi.org/10.1300/J066v19n01-05

Ponemon, L., & Glazer, A. (1990). Accounting education and ethical development: The influence of liberal learning on students and alumni in accounting practice. *Issues in Accounting Education*, *5*(2), 195. http://aaajournals.org/loi/iace?code=aaan-site

Ravid, R. (1994). *Practical statistics for educators*. University Press of America.

Rest, J. R., Narvaez, D., Bebeau, M. J., & Thoma, S. J. (1999). A neo-Kohlbergain approach: The DIT and schema theory. *Educational Psychology Review, 11*(4), 291-324.

Rest, J. R., Narvaez, D., Bebeau, M. J., & Thoma, S. J. (1999b). *Postconventional Moral Thinking: A Neo-Kohlbergian Approach*. Taylor and Francis. https://doi.org/10.4324/9781410603913

Saat, M. M., Porter, S., & Woodbine, G. (2012). A longitudinal study of accounting students' ethical judgement making ability. *Accounting Education*, *21*(3), 215–229. https://doi.org/10.1080/09639284.2011.562012

Shawver, T., & Sennetti, J. (2009). Measuring ethical sensitivity and evaluation. *Journal of Business Ethics*, *88*(4), 663-678. https://doi.org/10.1007/s10551-008-9973-z

Sweeney, B., & Costello, F. (2009). Moral intensity and ethical decision-making: An empirical examination of undergraduate accounting and business students. *Accounting Education*, *18*(1), 75–97. https://doi.org/10.1080/09639280802009454

West, A. (2018). After virtue and accounting ethics. *Journal of Business Ethics*, *148*(1), 21-36. https://doi.org/10.1007/s10551-016-3018-9

Zamudio-Suarez, F. (2019). Yes, college is 'worth it,' one researcher says. It's just worth more if you're rich. *The Chronicle of Higher Education*. https://www.chronicle.com

LESSONS LEARNED FOR IMPROVING EDUCATIONAL TECHNOLOGY ADOPTION DURING VOLATILE, UNCERTAIN, COMPLEX, AND AMBIGOUS SITUATIONS

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ABSTRACT

This case study explores how educational technology adoption during an emergency shift to remote teaching due to the COVID-19 pandemic, links to the Technology Acceptance Model (TAM) and the Substitution Augmentation Modification Redefinition (SAMR) model. Faculty from two distinct departments of a small four-year private college described their educational technology adoption. Results indicated that urgency and a desire to serve students led the way for technology adoption. The college, colleagues, and students were the technology influencers. Zoom and Blackboard (Bb) were the most prevalent educational technologies used during the shift to remote teaching.

INTRODUCTION

The workforce in nearly every profession was affected by the 2020 COVID-19 pandemic, leading to the expansion of work performed via technologically mediated spaces (Magsamen-Conrad & Dillon, 2020). Included were faculty at higher education institutions who quickly transitioned face-to-face classes to be taught online (June, 2020). At the midpoint of the spring 2020 academic semester, the pandemic forced faculty to pivot from face-to-face instruction and modify syllabi, course schedules, learning management system (LMS) content, and course delivery methods. These necessary alterations forced the application of educational technologies in creative and novel ways. Some faculty had little to no experience teaching online or using educational technologies to teach online.

The purpose of this study was to explore, from an instructor's perspective, why and how instructors at a private college with about 2700 students and 41 baccalaureate, 18 master's, and three clinical doctorate programs were using educational technology during the shift to emergency remote teaching (ERT). User acceptance of technology in volatile, uncertain, complex, and ambiguous situations and lessons learned for improving effective technology integration is described using results from a qualitative case study exploring the experiences, challenges, conditional variables, and behaviors related to educational technology adoptions during the ERT shift due to the COVID-19 pandemic. The refined research purpose was to explore if faculty from two distinctly different academic departments had differing perspectives about technology use during the ERT shift and why differences existed.

During the shift, faculty applied technology they had not been using for their courses, had never used, or had been using with only limited functionalities. This study reveals instructors' perspectives of why they used specific educational technologies and how technologies were incorporated into the curriculum. "Why" instructors used specific educational technologies is explained using the Perceived Ease of Use (PEU), Perceived Usefulness (PU), and Attitude Toward Using (ATT) core variables of the Technology Acceptance Model (TAM) (Davis, 1989). "How" the educational technologies were integrated is described following the logic of the Substitution Augmentation Modification Redefinition (SAMR) Model (Hamilton et al., 2016).

A brief literature review underscores the opportunity to explore faculty perspectives about why and how they used specific technologies during the spring 2020 ERT shift. Included is a synopsis of two technology integration models that set the study's framework. Following the literature review is the study's framework, research questions, methodology, and sample. Last are the results, conclusions, and suggestions for future research.

LITERATURE REVIEW

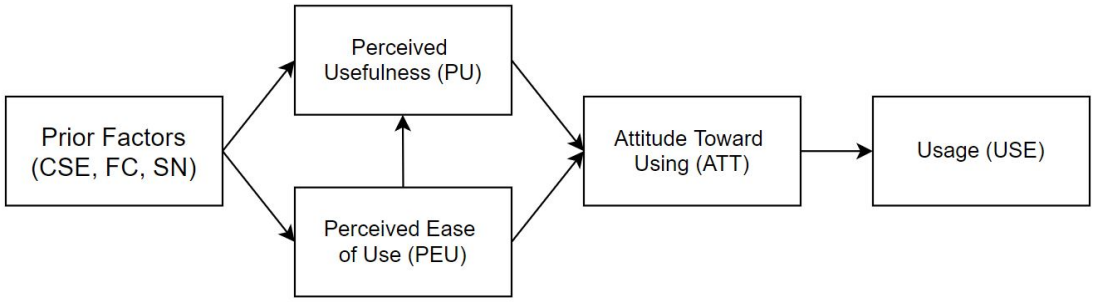
Technology integration frameworks

This section provides a succinct overview of commonly used technology integration models in educational research. A proven model to answer the question "why" technology is used is the Technology Acceptance model (TAM) with all its variants, and the related Unified Theory of Acceptance and Use of Technology (UTAUT) model (Davis, 1989; Taherdoost, 2018; Venkatesh et al., 2003). TAM, the most widely used model in education learning acceptance research (Šumak et al., 2011), is an off-shoot of Fishbein and Azjen's theory of reasoned actions

(TRA), which predicts and explains human's attitudes, social norms, and intentions regarding information technology (IT) usage behavior (Taherdoost, 2018). Perceived usefulness (PU) and perceived ease of use (PEU) are the key constructs of the TAM (Figure 1) (Wingo et al., 2017). Attitude toward technology (ATT) is another TAM concept. A recent meta-analysis identified Subjective Norm (SN), Computer Self-Efficacy (CSE), and Facilitating Conditions (FC) as important TAM external or prior factors related to technology acceptance (Scherer et al., 2019). Contextual factors examples are sex and culture (King & He, 2006).

TAM explains why and how humans adopt technology (King & He, 2006). TAM's predominant outcome is that it explains user motivation to accept technology via PU and PEU, which significantly impact ATT (Taherdoost, 2018). TAM evolved (King & He, 2006) to include three strata, starting with external precursors, or prior factors such as SN and task-technology fit. The second encompasses contextual factors such as sex, culture, and technology characteristics. The third comprises consequence measures of attitude, perceptual usage, and actual usage.

Figure 1: The TAM Model (Scherer et al., 2019)

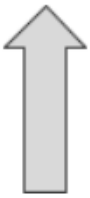


A synthesis of over 20 years of empirical online teaching studies (Wingo et al., 2017) connected faculty views of online teaching with TAM constructs. In terms of PEU, technically skilled faculty, and those confident in their technical skills are satisfied and willing to teach online. The reverse is true when technical problems occur or users struggle with technology learning. CSE drives PEU at every stage of technology adoption (Wingo et al., 2017). PEU is high for those with technical experience and faculty with online teaching experience had a heightened view of PU of online teaching and a willingness to continue with that teaching mode. The SN factor of PU relates to faculty's objections and absence of enthusiasm for teaching online, which stems from not sharing administrators' optimism and lacking clarity of their institution's online teaching goals. Two categories of concern exist for why faculty have negative views of PU of online education. One concern was the effectiveness of technology, their abilities to use it, and whether they could control student academic dishonesty. The other was the students' technical skills and access to technology. Faculty's view of PU of online teaching is negatively impacted by the amount of work and time required to teach online and positively impacted by the flexibility and professional development opportunities it offers.

The Substitution Augmentation Modification Redefinition (SAMR) model, which recently gained popularity at the K-12 level (Hamilton et al., 2016) and in higher education (Cavanaugh et al., 2013; Engin & Atkinson, 2015; Taherdoost, 2018; van Oostveen et al., 2011), can show the application level with the aid of technology. Specifically, it can explain "how" technology was

being layered into the overall curriculum. The SAMR model's two main steps are enhancement, including substitution and augmentation, and transformation, including modification and redefinition, through the implementation of educational technologies (Figure 2). The SAMR model suggests that as technology use progresses, teaching and learning are enhanced (Hamilton et al., 2016). Enhancement and transformation occur when the progression is from delivering the same information or receiving an unchanged student task (substitution), to having a task completed in a new way (augmentation), to integrating technology to bring action to learning (modification), to creating new tasks (redefinition). The SAMR model is criticized for lack of sufficient theoretical grounding, a nonlinear progression of the steps, that better outcomes may not emerge at the higher level of implementation, and that it cannot be used to assess or guide effective teaching and learning strategies (Hamilton et al., 2016).

Figure 2: SAMR Model (Hamilton et al., 2016)



Transformation	Redefinition	Creation of new tasks, previously inconceivable.
	Modification	Significant task redesign.
Enhancement	Augmentation	Functional improvement.
	Substitution	No functional change.

Attitude and Motivation Towards Online Teaching and Educational Technology

Varying factors affecting faculty's PU and PEU for teaching online result in faculty having opposing views about teaching online (Wingo et al., 2017). A teacher's attitude about teaching and learning is one main barrier to teaching using educational technology (Demps et al., 2011). Time commitments for learning technology and preparing lessons, lack of understanding of technology capabilities, lack of experience with technology, technical problems, and insufficient institutional or departmental training and support contribute to attitude (Demps et al., 2011; Wingo et al., 2017). In their interviews with faculty at public research universities, Demps et al. (2011) were informed by some faculty that teaching online stimulated creativity and renewed their inspiration to teach. Faculty's intrinsic motivation for applying educational technology stems from expected student conveniences and student and faculty learning outcomes.

Individuals with high self-efficacy persist when facing challenges by engaging in actions for which they have success confidence (Bandura, 1982). Granić and Marangunić (2019) found evidence that self-efficacy affects PU. In a test of effect level, Yeşilyurt et al. (2016) found computer self-efficacy to be a significant and positive predictor of teachers' attitude about using educational technology. Further, when educators receive technology training, their computer technology use increases (Yeşilyurt et al., 2016), and their likelihood of technology acceptance and success with the technology are high (Scherer et al., 2019). For teaching technology success, an educational institution must establish a technology-supported infrastructure that evolves with environmental changes because institutional direction and support influence teachers' technology confidence, capabilities, and ultimately adoption (Price & Kirkwood, 2014). In the TAM, the confidence a person has in organizational technology support is the FC toward technology adoption (Scherer et al., 2019).

RESEARCH FRAMEWORK

Šumak et al. (2011) and Joo et al. (2018) recommended future research in the field of educational technology acceptance with focuses on cultural contexts and other factors, such as experience and support, that influence faculty's intention to adopt technologies. Most of TAM research is quantitative in nature and based on feedback of students or technology users. This study defines acceptance as the factors that led to the educational technology use by higher education instructors during the emergency shift to online teaching in the spring 2020 semester.

The organizing framework for this study rests on the TAM and SAMR models. The models were used in combination to explore instructors' attitudes, motivations, use, and perceived usefulness related to technology adoption to gain insight on the experiences of one college's faculty during the unique and sudden shift to ERT due to the COVID-19 crisis. The TAM model is the main feature. The TAM's core elements used in this study are PEU, PU, and ATT, as Davis (1989) identified. Actual Usage (USE) emerges as one typical outcome for PEU, PU, and ATT.

The SAMR model provides a logical and fitting lens for our inquiry, despite the limited peer-reviewed definitions in academic literature (Hamilton et al., 2016). The SAMR model complemented and guided the technology-focused discussion and explicitly assessed how technology was integrated. The TAM and SAMR models are most closely aligned with our overall research objectives and helped answer the interrelated questions of "why" and "how" technology was used. We make no claim that a higher level of technology integration, according to the SAMR model, leads to better learning outcomes. All semi-structured interview questions were clustered within the three groups in Table 1.

Table 1: Organizing framework for inquiry in this study

I) TAM - Prior Factors	II) TAM - Perception and Attitude	III) TAM - Usage & SAMR - level of integration
Subjective Norms (SN)	*Perceived Ease of Use (PEU)*	*Usage (USE)*
Facilitating Conditions (FC)	*Perceived Usefulness (PU)*	SAMR - Enhancement
Computer Self-Efficacy (CSE)	*Attitude Toward Using (ATT)*	SAMR - Transformation

DELIMITATIONS

Intentionally excluded are cognitive models for defining learning objectives and assessment, such as Bloom's taxonomy (Anderson et al., 2001) and the context-oriented Webb's Depth of Knowledge (Webb, 1997). More exclusions are the related theory of Diffusion of Innovation (Rogers, 2003), which focused on the adoption behavior of specific technology over time, broader socio-technical models, or technology-focused task-technology fit models. Other valuable, yet excluded, education-specific models are the knowledge-focused Technological Pedagogical and Content Knowledge (TPACK) and the granular Technology Integration Matrix (TIM) (Harmes et al., 2016; Mishra & Koehler, 2006).

RESEARCH QUESTIONS

The TAM and SAMR model were foundational for the research questions to explore ERT technology adoption perspectives from two distinctly different academic departments. The central research question was, What factors impact technology acceptance and adoption in a higher education environment? The sub research questions related to specific elements of the models. From TAM, the questions related to the SN, FC, and CSE prior factors and PE, PEU, and ATT core variables. From the SAMR model, questions related to technologies used and their integration. The research questions align with the organizing framework in Table 1.

- (TAM - SN): How did the instructors' colleagues, the department, and the college influence technology adoption?
- (TAM - FC): What was the instructors' personal situation dealing with the remote environment, and support and accessibility of college and other resources?
- (TAM - CSE): What was instructors' experience in online teaching and educational technologies in years?
- Other prior factors?
- (TAM - PU): Does the instructor believe that using a particular technology would enhance their job performance?
- (TAM - PEU): How was the user-friendliness of a particular technology perceived by the instructor?
- (TAM - ATT): How did instructors' motivation to teach online affect technology acceptance?
- (TAM - USE): Which technologies were implemented, and what barriers did instructors experience?
- (SAMR): How did curricular technology integration align with the SAMR model?

METHOD AND DESIGN

The experiences and behaviors of faculty from the Business department and the Physical Therapy (PT) department with applying educational technology during the COVID-19 pandemic were explored through a qualitative methodology using a case study design (Yin, 2018). This qualitative study allowed the discernment of participants' situation-specific perspectives (Creswell & Poth, 2018; Sim et al., 2018). The researchers and participating faculty of this study were from either the Business or the PT departments. The Business and PT departments are two of 19 academic departments at the college.

From the collection of qualitative designs, a case study design was chosen as indicated is appropriate by Crowe et al. (2011), to perform a full, and naturalistic versus experimental, exploration of a unique situation within a current and fixed setting. The intent was to explore technology adoption at the individual and department level. The study aim was a holistic exploration of participants' perspectives (Yin, 2018) of why and how educational technologies were used; therefore, a quantitative method was not considered. With human behavior as a study

variable, the use of a case study for this investigation in the field of education is supported (Harrison et al., 2017).

The curriculum scope and pedagogical differences and similarities of the Business and PT departments were compared in this case study related to the ERT phenomenon to relay participants' perspectives of the multifaceted issue of emergency adoption of educational technologies. The explanation building (Yin, 2018) achieved through this case study establishes internal validity and the notion that the generalized lessons learned from these distinct academic departments could apply elsewhere contributes to external validity. The boundaries of two academic departments of one small four-year college were used to compare and align results with the renowned TAM and the SAMR model to seek support for a generalized framework (Tsang, 2014) related to a unique phenomenon that occurred at a distinct time.

Rigor for our case study lies with comparing cases while seeking an inferential comparison through an understanding of faculty technology use during the spring 2020 ERT shift (Hoorani et al., 2019). We attempted to unpack the relationships that align with the TAM and SAMR model (Tsang, 2014). As the data collection instrument (Creswell & Poth, 2018), we used an interview guide for our semi-structured interviews.

SAMPLE AND DATA COLLECTION

To better understand the TAM and SAMR model dimensions, we pursued a homogeneous purposive sampling technique as described by Etikan (2016). Faculty in each department were recruited to participate in this study which consisted of twenty-six Business Department Faculty and fifteen PT Department Faculty. Deliberate and nonrandom participant solicitation from Business and PT department faculty allowed for a within and between case comparison of faculty experiences and perceptions regarding technology adoption. The Business and PT departments were selected because of their distinct curriculum and department culture differences (Table 2).

Table 2: Department Characteristics

	Business	PT
Course Types	• Lecture • Single instructor per class	• Lecture and laboratory/hands-on instruction • Faculty teaching teams
Department Culture	• Technology knowledge sharing and encouragement • Self-taught technology • As needed technology training sought from college's IT department	• Technology knowledge sharing and encouragement • Technology-oriented culture led by the department chair • Technology training included in department meetings

Studying two departments with different course types (i.e., lecture cognitive only vs. lecture/laboratory cognitive and psychomotor, etc.) had the potential to yield a higher number of diverse insights than if studying two departments with homogeneous course types. The nature of department-specific courses requires distinctive pedagogies that may be best suited for particular technology applications. Unlike Business courses, many PT courses entail instructor-facilitated laboratory components with hands-on instructional experiences. A distinct difference in course deliveries for the Business and PT departments is that the PT department often uses faculty teaching teams within courses (i.e., up to 5 faculty in one course), necessitating curriculum and technology use collaboration. Conversely, Business department courses run with one faculty member assigned and do not use team-based teaching.

Work cultures in the Business and PT departments are not alike. Broadly, culture here is a shared construct that expresses an understanding at the department level of how things are being done. Regarding technology, knowledge sharing exists at the department level for both departments and technology use is encouraged. The PT department has a strong and long-standing technology-oriented culture, led by the department chair. Technology training is regularly part of PT department meetings with either the faculty or the college's instructional designers demonstrating technology applications. The Business department has other SNs in this regard and relies more on training and guidelines at the college level.

Purposeful sampling for our study during the ERT shift provided the opportunity for rich data collection (Hoorani et al., 2019). The solicited faculty experienced the ERT shift, could articulate their experiences, and were accessible. The study's 13 participants resulted in data saturation, which was achievable with the relatively few participants as our study aim was narrow and accomplished with interviewing (Sim et al., 2018). We obtained support from the respective department chairs to access the faculty for interviews. Participation was voluntary. Researchers of this study did not interview faculty within their own department for confidentiality reasons, nor did they have access to individual records of the respective faculty members.

For this sample, the teaching mode was almost exclusively face-to-face. Fewer than one-third (30.7%) of the respondents taught an online class before the emergency pivot. A higher percentage of Business faculty had online teaching experience before the pandemic (see Table 3). A single respondent regularly taught online courses for over 20 years. In general, participants viewed and used technology as a supporting resource for face-to-face instruction.

Table 3: Participant Demographics

	Number of Participants	Years of Higher Education Teaching [Mean, Median, Range]	Had Been a Student in a Formal Online Class	Had Taught an Online Course Before the Pandemic
Business	6	13.3, 10.5, 27.0	50%	50%
PT	7	15.4, 6.0, 28.5	100%	14%

Interviews occurred via recorded Zoom conferencing using the interview guide. The 30 to 45-minute interviews were transcribed with Zoom's transcription functionality. Interview

responses were sorted into a spreadsheet according to each interview question and associated TAM and SAMR model construct, and used for data analyses.

RESULTS AND DISCUSSION

This study's data represents faculty perspectives about technology applications during a shift to ERT in the spring 2020 semester. This section discusses how the educational technology and curriculum decisions made by faculty during the ERT shift can be analyzed and explained with the TAM and SAMR theoretical frameworks. This will be done with a within case analysis and followed with a between case analysis of the college's Business and PT departments. The findings are presented according to our research framework categories of prior factors, perception and attitude, and usage and level of integration, and summarized in Table 4. Included with the prior factors are two prominent outcomes from this study. Perceived student expectations are part of SN and the dimension of time constraint impacting technology adoption is a FC. Insight into how age and sex affect technology adoption is included in the discussion.

Table 4: Summary of Within Case Findings

I) TAM - Prior Factors	II) TAM - Perception and Attitude	III) TAM - Usage & SAMR - level of integration
Subjective Norms (SN) ● College's Information Technology (IT) Office and Instructional Designers ● Colleague technology use ● Departmental technology culture ● Perceived student expectations desiring value, attention, and consistency **Facilitating Conditions (FC)** ● Confidence in support from the college's IT Office: ● Ongoing workshops ● Emergency workshops ● On-demand individual consultations ● Time Constraint due to	**Perceived Ease of Use (PEU)** ● Learning curve was generally short and interesting ● Zoom Basic time limit was not user-friendly; the solution was Zoom Pro **Perceived Usefulness (PU)** ● Ability to deliver content via online conferencing ● Desire for a consistent learning environment ● More technology training is planned **Attitude Toward Using (ATT)** ● 62% were motivated and 38% were somewhat motivated to teach online	**Usage (USE)** ● Zoom ● Blackboard (Bb) ● Respondus ● Microsoft Office ● Video recordings **SAMR - Enhancement** ● Zoom conferencing ● Zoom breakout rooms ● Bb Discussion forums ● Bb testing ● Respondus Lockdown Browser and Monitor **SAMR - Transformation** ● Narrated PowerPoints and video lectures ● Synchronous to asynchronous lectures ● Augmented teaching document handouts

the rapid shift to remote teaching **Computer Self-Efficacy (CSE)** ● Established over time from: ● Technology use as an instructor and an online student ● Training from the college's IT Office, internal and external colleagues, and self	● Motivation was student-centered	● Modified lesson plans ● Adjusted hands-on activities ● Coupled Zoom conferencing with demonstrations ● Added Quality Matters (QM) Higher Education Rubric

Prior Factors for Education Technology Use

Prior factors explained by the participants suggested SN, FC, and CSE influenced their perception and attitude towards educational technology use.

Subjective Norm (SN)

The SN factor of the TAM, whereby people take action because they believe their peers, superiors, and role models think the action is appropriate (Scherer et al., 2019), was supported by this study's data. Overwhelmingly, faculty adopted technologies the college and their academic departments introduced, promoted, and supported. These participants' comments suggested the college's instructional design staff and academic departments' innovation and technology cultures were catalysts:

- "Our department has always encouraged movement towards online delivery where appropriate, led by the department chair who always encouraged us to take advantage of the technology."
- "Our faculty meetings frequently include some type of discussion about something new, different, [and] fun that someone discovered to bring technology into the classroom. I've adapted along the way to technology, to use Blackboard (Bb) and use of all the systems that we have."
- "I was aware that my business colleagues were using interactive tools in the classroom, and I was very encouraged and interested by their techniques."
- "I always tried to take advantage of the technology teachings from the Instructional Design department."

In addition to peer and role model influences, a prominent SN factor in our study was participants' recognition of student expectations, confirming students are a SN factor influencing

educational technology adoption (Huang et al., 2011). One participant stated their desire for students to "get their money's worth," and other participants stated:

- "Our students paid a lot of money for these courses and they need this content, and we need to figure out a way to meet their needs and not let them down."
- "I felt that our students chose [our college] because they like the attention."
- "We wanted our students to have consistency."
- "I wanted to make sure my sessions looked professional."

Facilitating Conditions (FC)

During the transition to online learning, all faculty received a high level of technology support from the college's instructional design office. IT held emergency technology workshops and on-demand one-on-one consultations to help faculty acclimate to teaching technologies. Business and PT faculty participants adopted technologies due to their confidence in the college's instructional designers' availability and competence, as evidenced by these participant statements:

- "[The instructional designers were] available for questions as I ran into little bumps in the road. That was very helpful."
- "IT stepped in to help make sure things were set up for me."
- The "just-in-time training [from the instructional designers] "is extremely helpful."
- "[IT] is a resource you can go to quickly go to get your answer. I think that those scheduled appointments are very helpful."

When asked about the preferred level of support desired when teaching an online course, participants' responses ranged from low to high. More tech-savvy and technology-confident participants did not desire much technology support; however, 66% indicated desiring a moderate to a high level. Participants emphasized that when they need support, they seek it.

Participants' comments about support from the college confirmed Scherer et al.'s (2019) stance that a person's confidence in organizational technology support is the FC toward technology adoption. Our findings also upheld the empirical evidence that college support equates to educational technology users viewing technology as effective (Granić & Marangunić, 2019).

The important variable of 'time' has demonstrated to be a barrier to teaching using educational technology (Ertmer 1999, 2005; Tabata & Johnsrud 2008). Learning new technology and becoming efficient and effective in its delivery has been shown to be a time-consuming process. Demps et al. (2011) concluded that the barrier of time constraints was the most mentioned of all factors among the research participants. Moreover, noted by the participants, the steep learning curve barrier that accompanied the use of technology to teach may be another negative perspective of time. A sample of participants references to time include:

- "[The] shift was so quick."
- "There was really not a whole lot of time to think about whether you wanted to teach online or not."
- "I adopted because that is what we had to do at the time."
- "So much was happening so fast."
- "Certainly, we didn't have the time to apply the whole [Quality Matters] rubric."
- "It was challenging because you really did not have the time to thoroughly think through how you wanted to deliver certain things."
- "You kind of have to hit the ground running when these things happen."

- "I felt like every week I was sort of catching up."
- "I [considered technologies] because I knew how to use them and they were easiest to use in such a short period of time."
- "Because of the short time frame, we had to adopt it [Zoom] ... because we just had to get it going."

Computer Self-Efficacy (CSE)

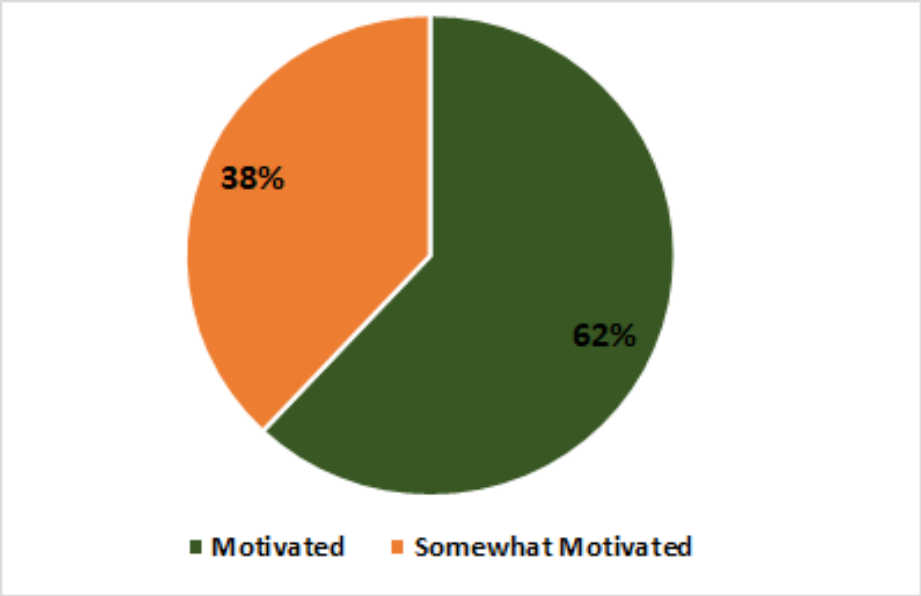
Prior to the ERT shift, faculty's generally high technology comfort level, or CSE, resulted from long-term technology use in educator and student roles. Participants' teaching experience ranged from 3.5 to 32 years, with a mean of 14.4 years (Table 3). All of the PT faculty (= 7), and overall, 10 of the 13 (77%) participants (Table 3), had been students in at least one online class. Several participants had extensive experience as a consumer of online education. More technology comfort resulted from technology training and support from the college's instructional design office, department colleague encouragement, and knowledge sharing, linking these study participant explanations to the CSE TAM construct (Wingo et al., 2017).

Examples of participants' increased CSE included completing a hybrid learning certificate program, attending college-sponsored technology workshops, collaborating with co-workers, and being exposed to technologies at conferences and adding those to their technology 'tool boxes.' More examples were long-term use of technologies, self-training, and one's own trial and error. The shift to remote instruction forced faculty to increase their use of educational technologies and adopt additional technologies or combine technologies, regardless of their experience or training.

Perception and Attitude of Education Technology (PU, PEU, and ATT)

According to our findings, PU, PEU, and ATT motivated faculty's technology adoption. Participants' motivation to teach fully online at ERT (Figure 3) was relatively high: 62% indicated they were motivated, and 38% stated being somewhat motivated to teach online.

Figure 3: Participants' motivation to teach online at ERT



Regardless of participants' motivation levels when the pandemic struck, motivation to teach online was student-centered, as evidenced by these participant comments:

- "I wanted to do a good job for them [the students] and make things pretty smooth because I knew their life was pretty crazy."
- "I was open to learning anything I needed to do what we were required to do … I was confident that we could do it, and I was eager to have any technologies that could help us get to that end."
- "My focus was that I need to ensure that my students are getting the quality of education that they deserve, and that I could facilitate learning in the best way possible."
- "It was something we needed to do for our students."
- "I enjoy interacting with the students and helping them through the classes … If I can give them a leg up when they enter the workforce, those are the types of things that motivate me."
- "We were focused on the outcome for the students."

Previous research exposed variations in the quality of technology students possess, contributing to disruption issues and late or missed coursework (Gonzales et al., 2020). All faculty in this study recognized that some students had technology issues that interfered with their online learning. Struggles occurred with students' initial use of Respondus LockDown Browser and Monitor, lack of stable internet connectivity, or not having the "right" hardware or software. Issues stemmed from students using Chromebooks which are not compatible with Respondus technology. Troubleshooting students' technology issues could impact faculty's ATT regarding educational technologies.

The ongoing technology support faculty received contributed to their elevated PU and PEU of educational technologies. Participants, desiring a comfortable and consistent learning environment for students, learned Zoom usage through technology training workshops, one-on-one consultations with an instructional designer, colleagues, and self-learning. Common among 69.2% of our participants was they experimented using Google Meet before adopting Zoom. Even the participants with Google Meet familiarity chose Zoom for students' ease, avoiding students' need to learn through multiple platforms. One participant maintained regular use of Google Meet throughout the ERT shift but also used Zoom. Endorsements for Zoom were that it was "user-friendly" and "sleeker" than Google Meet and that Zoom had a 'breakout room' feature. Being "choppy" and "less professional" than Zoom were descriptors faculty attributed to Google Meet.

When participants explained their experiences with technology adoption during the ERT shift, PU and PEU surfaced with the characteristics of usefulness and user-friendliness. That confirmed Wingo et al.'s (2017) claim that CSE is a prime contributor to PEU. A consistent theme within participants' responses was that the learning curve for the technologies adopted was short and interesting. However, less tech-savvy faculty stated their learning curve was longer, but they had heightened PU and PEU following the learning curve period. Self-training was mentioned by the participants, suggesting PEU. Furthermore, training from instructional design experts and experienced department colleagues increased faculty's perception of PU. Overall, participants' technology understanding and comfort increased with training, which also smoothed technology adoption, confirming the statistical evidence Davis (1989) found that technology use was based on PU and PEU with PU having the stronger link.

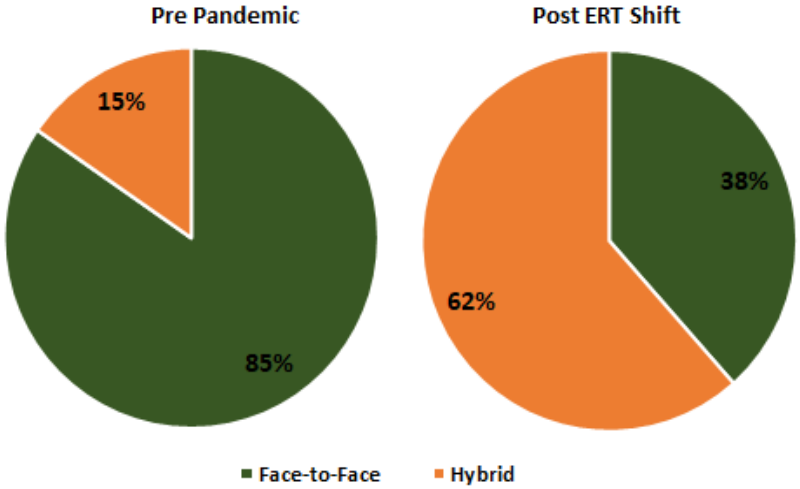
The participants favored the college-wide technology consistency and features of the adopted technologies, raising their opinion of the technologies' PU. Generally, participants discovered Zoom and Bb LMS features were easy to manage. The main aspect lowering participants' perceptions of Zoom was the time limit for meetings via Zoom Basic. PU and PEU increased when the college made Zoom Pro accounts available because faculty no longer had a time limit for meetings. This finding aligned with Wingo et al.'s (2017) position that technical issues are a roadblock to PEU.

Participants plan to continue using educational technologies, have technology improvement goals, and will seek further technology training from the college's instructional design staff, colleagues, or online resources. Participants' comments regarding necessity and plans for technology training were again, student-center themed, with an accompanying efficiency theme, signifying PU. With the shift to remote teaching continuing, participants revealed immediate, future, and specific training interests to meet curriculum delivery and student success goals suggesting alignment with Bandura's (1982) conclusion that external factors combine with internal motivators to effect an individual's self-efficacy and actions. Behavior intention (BI) of technology use is a typical outcome of PEU, PU, and ATT (Wingo et al., 2017). The following participant statements about their plans to improve their educational technology competence support that PU, PEU, and ATT lead to BI and USE outcomes (Scherer et al., 2019):

- "The knowledge and skills in this area constantly change, so as things change and evolve, I will have to take advantage of training."
- "I would like to get better with developing materials and thinking about delivery frameworks with materials."
- "I'm interested in learning the more efficient way[s] to do things. I think learning different techniques of how to upload a video and make it easiest for the students to watch [is essential]."
- "I think it is crucial that I am able to use the technology well before I start actually using it."

Course delivery preference for all study participants is shown in Figure 4. After the ERT shift, participants' preferences for course delivery changed from predominantly face-to-face to more prevalently hybrid. For Business faculty, the percentage preferring a hybrid course delivery increased to 67% after the pandemic from 17% before the pandemic. For PT, 57% preferred a hybrid course delivery after the pandemic versus 14% preferring that before the pandemic.

Figure 4: Pre-pandemic and post-ERT shift preferred course delivery method for all study participants



Usage and Level of Technology Integration

TAM-USE

Before the pandemic, participants' educational technology use was due to SN and task-technology fit (King & He, 2006). Universally, faculty used the basic functions of the Bb LMS in either the Original or the newer Ultra version. Bb is used college-wide. Participants stated the college was the influencer for Bb use. Faculty also used PowerPoint presentations that were generally not narrated. To varying extents, faculty were using textbook publishers' digital materials, polling and gaming platforms, video annotation, Zoom, Google Meet, Google Drive, and other online technologies.

Upon the ERT shift, study participants selected technologies promoted and used by the college's IT office and their department colleagues and that fit their teaching objectives. Along with the technologies the participants were using before the pandemic, new technologies they considered to deliver instruction remotely were Zoom and Google Meet conferencing applications, narrated presentations, functionalities of Bb, and coupling Respondus applications with Bb testing.

SAMR

Following the ERT shift, participants' educational technology use classified as substitution for prior teaching techniques per the SAMR model constructs. Participants adopted Zoom as the online conferencing platform to replace in-person instruction and individual student meetings. Participants used the Zoom breakout rooms, stating they were simple to use and that the recording feature was useful. We view the use of Zoom breakout rooms as curriculum enhancement via substitution according to the SAMR model. Faculty embraced technology because they felt supported and understood the importance of technology in the growing hybrid and online educational landscape (Robinson, 2017).

Substitution was evident in the instructors' shift from synchronous to asynchronous delivery. Also, faculty, some for the first time, narrated their PowerPoint presentations. Faculty already using narrated PowerPoints increased the frequency of the media. More substitution resulted as faculty expanded their Bb use to host student resources, including course documents, weblinks, their narrated PowerPoint presentations, and assignment drop boxes. A prevalently used Bb feature new to this participant group during the shift to online teaching was discussion forums. Bb discussion forums were a supplement for Zoom meeting discussions where students engaged with classmates, shared interests, and broadened their learning. This was noted as augmentation enhancement under the SAMR model.

Transformative course modification, according to the SAMR model, was also evident. The format or structure of hands-on activities were redesigned. And, assessments traditionally administered in a physical classroom transitioned to Bb assessments. Bb testing technology was combined with Respondus LockDown Browser and Monitor technology that identifies students using online and physical resources or communicating with another person.

Demographics

Insight into faculty participants' technology adoption could be explained by age (Figure 5) and sex (Figure 6). At the time of data collection, participants 39 years and younger were classified as belonging to Generation Y. Participants 40-55 years of age were classified as belonging to

Generation X, and participants 56 and older belonged to the Baby Boomer generation. No participants favored 100% online course delivery before the pandemic or after the ERT shift. For Generation Y, 100% stated course delivery preference was face-to-face before the pandemic and remained that way after the ERT shift. For Generation Y, 100% stated course delivery preference was face-to-face before the pandemic and after the ERT shift. Before the pandemic, all Generation X participants preferred to deliver their courses face-to-face. After the ERT shift, 50% of Generation X stated they favored a hybrid form. The most significant change in course delivery format after the ERT shift was discovered among the Baby Boomer faculty. Before the pandemic, 77% preferred a face-to-face delivery and 33% preferred a hybrid form. Following the ERT shift, 83% of the Baby Boomer generation preferred a hybrid delivery format.

In terms of sex, the ERT shift changed females' thinking, whereby more preferred hybrid course delivery than face-to-face delivery. Before the pandemic, 11% of females preferred to teach in a hybrid format compared to 75% preferring that after the ERT shift. Course delivery preferences for all four males were unchanged with 75% of males preferring to teach in a face-to-face format.

Figure 5: Preferred course delivery method by age group

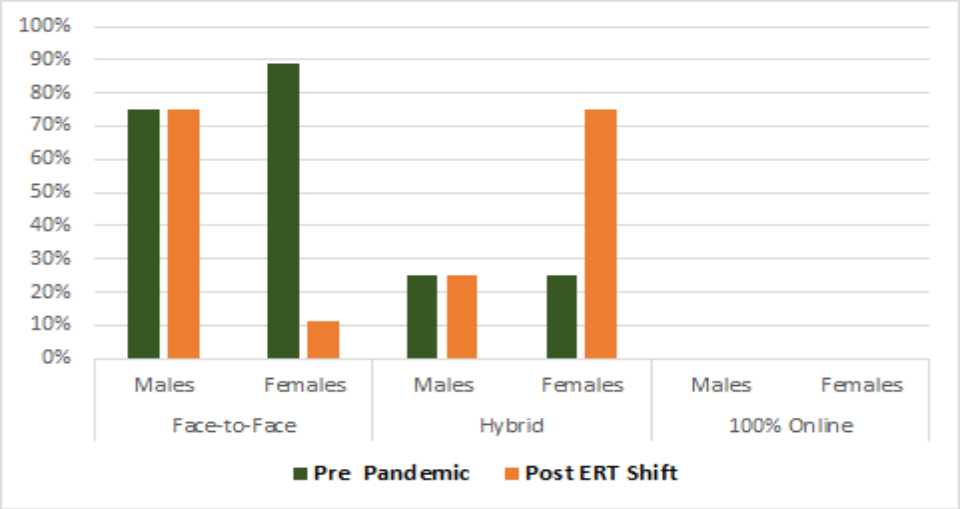
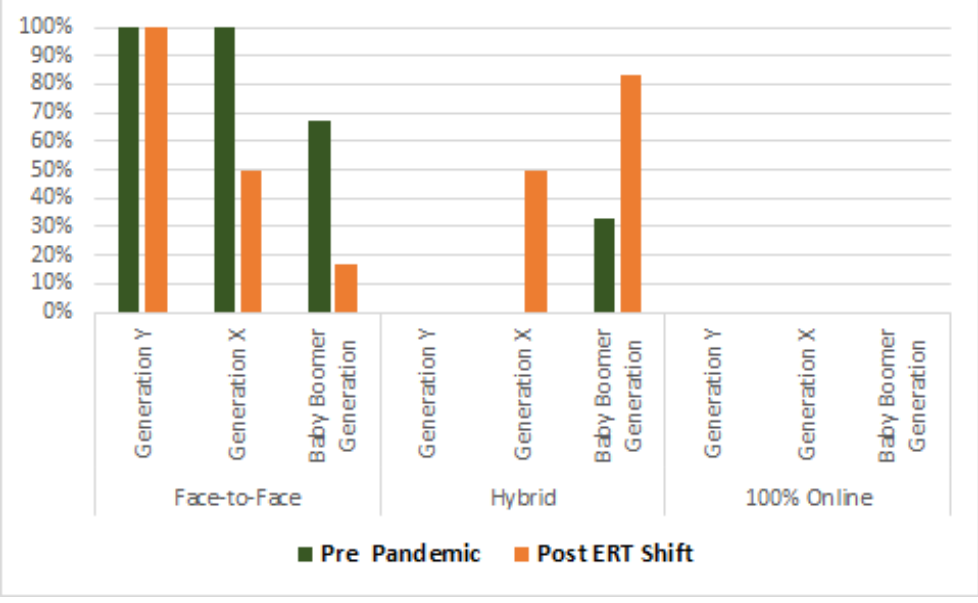


Figure 6: Preferred course delivery method by sex



Between Case Analysis

Students

Student characteristics could influence faculty choice of technology. In terms of the differences in Business and PT student populations, over the last three years on average, the Business classrooms had 26.9% more minority students and 16.3% more Pell Grant recipients. On average, the High School GPA score of incoming Business students is 9.0% lower than for PT students, with percentages of Business students' GPA scores declining from 86.2% in 2018 to 79.8% in 2020. During the 2019-2020 academic year, a majority of Business and PT students were traditional (18-24 years old) versus adult (25 years and older) learners. PT had a higher percentage of traditional learners; 93.2% of PT students and 81.5% of Business were traditional learners. For PT, the adult learner population was 6.8% versus 18.5% for Business.

TAM and SAMR Model

Business and PT faculty displayed similarities for many of the TAM and SAMR model constructs; however, noted differences correspond to the TAM SN factor and SAMR model transformation concept. Specifically, differences are faculty's influences and approaches to technology learning and their use and integration of technology to transform content delivery. TAM's dominating SN factor for PT faculty was the department's technology culture, led by the department chair. A main theme revealed by PT participants was departmental technology collaboration. At department meetings, PT faculty engaged in group technology training provided by the chair, colleagues, or invited instructional designers. According to one participant, during the ERT shift, the PT department "had faculty meetings to discuss keeping things consistent across the department." And, the PT faculty teaching teams collaborated on technology selections for their course delivery. Colleague influence affecting PT department faculty technology adoption confirmed SN is a dominating factor for education technology users to view technology as effective (Granić & Marangunić, 2019).

Conversely, Business faculty, who professed to be self-starters, tended to learn how to use technology through self-teaching and as needed and brief just-time-training. According to all participants' responses, self-teaching and just-in-time training could be attributed to Business faculty reporting a slightly higher level of tech-savviness and comfort level with technology than was reported by PT faculty. Similarly, regarding new technology adoption, Business faculty reported an overall higher PEU of Zoom.

Changing the format and augmenting the content of teaching handouts and adjusting hands-on activities were transformative course modifications mentioned by Business faculty. However, for PT faculty, the transformations were reported to be more significant than those made by Business faculty. Transformation via modification occurred when PT faculty coupled Zoom conferencing with other applications. For example, PT faculty had students explain what buttons to press on PT treatment equipment the instructor was displaying, or point out landmarks on a skeleton in an anatomy lab app versus a physical skeleton. As reported by one PT instructor, the outcome was "pretty close to as effective as in person." One more transformation by the PT faculty was their 'flipping' of the classroom (form of blended instruction and learning), using narrated PowerPoints and other videos.

CONCLUSION

Teaching courses entirely online or through a hybrid format using educational technology continues to evolve, bringing efficiency and high quality to higher education (Demps et al., 2011; Wingo et al., 2017). The 2020 pandemic escalated educational technology adoption when faculty were forced to adopt technologies to shift in-person instruction to online. Following the unique ERT shift, faculty from two distinct academic departments of a small four-year private college with a Carnegie designation of Doctoral/Professional University, explained they adopted educational technologies as a means of providing the best experience for students, indicating PU. During the ERT pivot, faculty increased their use and functionality of their existing educational technologies for their course(s). They also adopted new technologies and frequently combined existing and new technologies.

Several lessons are learned from this study. First, we found educational technology use is the result of converging influences. Those influences, an institution's philosophy, academic department culture, and access to technology support, equal the findings of Price and Kirkwood (2014). This study's participants' SN for technology adoption came from the college, colleagues, and students. The FC of ongoing and on-demand technology support was influential for high ATT. And, participants' CSE came from receiving technology training and teaching themselves to use technologies, which contributed to PEU for existing and new technology use.

Secondly, when faculty have a high CSE and technology support confidence, they are motivated to use educational technologies and teach online, even though changing technologies and applications of technologies (Hamilton et al., 2016) create uncertainty for instructors. This study introduces that an emergency (global pandemic) accelerated the faculty's educational technology adoption. Participants' technology use denotes enhancement and transformation under the SAMR model. For example, faculty adopted Zoom as a substitute for in-person course delivery. They also expanded their use of narrated PowerPoints and Bb, transitioned some synchronous delivery to asynchronous, and modified various tasks. All participants perceived Zoom and other adopted technologies to be user-friendly, indicating PEU.

Our findings confirm the ability and success of online learning hinges on faculty's attitude toward education learning (Šumak et al., 2011) and their application of technologies. In this post-ERT shift, higher education institutions can benefit from implementing strategies that expand online learning opportunities to capitalize on the evolution of online learning and educational technologies. To that end, faculty need administrative and colleague support. Higher education institutions need to be poised to offer online learning opportunities as the convenience and flexibility draw students, some of whom have no alternative to accessing higher education content.

A limitation of our study is that we investigated a small four-year private college with a Carnegie designation of Doctoral/Professional University and two distinct departments. Generalization of findings are then limited in their applicability to other types of higher education institutions and academic departments/programs. Future research should consider investigating post COVID-19 technology USE, PU, and ATT pertaining to future technologies. Additionally, CSE and ATT for educational technologies and fully online teaching and implications for delivering more courses in hybrid or online formats should be explored. Lastly, investigation of the TAM model from a student qualitative lived perspective may prove enlightening and augment the results of this study.

REFERENCES

Anderson, L. W., Krathwohl, D. R., & Bloom, B. S. (2001). *A taxonomy for learning, teaching, and assessing: A revision of bloom's taxonomy of educational objectives*. Longman.

Bandura, A. (1982). Self-efficacy mechanism in human agency. *The American Psychologist, 37*(2), 122-147. https://doi:10.1037/0003-066X.37.2.122

Cavanaugh, C., Hargis, J., Kamali, T., & Soto, M. (2013). Substitution to augmentation: Faculty adoption of iPad mobile learning in higher education. *Interactive Technology and Smart Education, 10*(4), 270. https://doi.org/10.1108/ITSE-01-2013-0001

Creswell, J. W. & Poth, C. N. (2018). *Qualitative inquiry & research design: Choosing among five approaches* (4th ed.). Sage Publications.

Crowe, S., Cresswell, K., Robertson, A., Huby, G., Avery, A., & Sheikh, A. (2011). The case study approach. *BMC Medical Research Methodology, 11*(1). https://doi.org/10.1186/1471-2288-11-100

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 319–340.

Demps, E. L., Lincoln, Y. S., & Cifuentes, L. (2011). Conflicts over the utilities of teaching using educational technologies: An interpretive critical inquiry. *Advances in Developing Human Resources, 13*(2), 135-170. https://doi:10.1177/1523422311415641

Engin, M., & Atkinson, F. (2015). Faculty Learning Communities: A Model for Supporting Curriculum Changes in Higher Education. *International Journal of Teaching and Learning in Higher Education, 27*(2), pp. 164-174.

Etikan, I. (2016). Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics, 5*(1), 1–1. https://doi.org/10.11648/j.ajtas.20160501.11

Gonzales, A. L., McCrory Calarco, J., & Lynch, T. (2020). Technology problems and student achievement gaps: A validation and extension of the technology maintenance construct. *Communication Research*, *47*(5), 750-770.

Granić, A., & Marangunić, N. (2019). Technology acceptance model in educational context: A systematic literature review. *British Journal of Educational Technology, 50*(5), 2572-2593. https://doi:10.1111/bjet.12864

Hamilton, E. R., Rosenberg, J. M., & Akcaoglu, M. (2016). The substitution augmentation modification redefinition (SAMR) model: A critical review and suggestions for its use. *TechTrends, 60*(5), 433–441.

Harmes, J. C., Welsh, J. L., & Winkelman, R. J. (2016). A framework for defining and evaluating technology integration in the instruction of real-world skills. In Rosen, Y., Ferrara, S., & Mosharraf, M. (Eds.), *Handbook of research on technology tools for real-world skill development* (pp. 137–162). PA: IGI Global. https://doi:10.4018/978-1-4666-9441-5.ch006

Harrison, H., Birks, M., Franklin, R., & Mills, J. (2017). Case study research: Foundations and methodological orientations. Forum, *Qualitative Social Research, 18*(1).

Hoorani, B. H., Nair, L. B., & Gibbert, M. (2019). Designing for impact: The effect of rigor and case study design on citations of qualitative case studies in management. *Scientometrics, 121*(1), 285-306. https://doi:10.1007/s11192-019-03178-w

Huang, R. T., Deggs, D. M., Jabor, M. K., & Machtmes, K. (2011). Faculty online technology adoption: The role of management support and organizational climate. O*nline Journal of Distance Learning Administration, 14*(2).

Joo, Y. J., Park, S., & Lim, E. (2018). Factors influencing preservice teachers' intention to use technology: TPACK, teacher self-efficacy, and technology acceptance model. *Educational Technology & Society, 21*(3), 48-59.

June, A. W. (2020). Are colleges ready to move online? *The Chronicle of Higher Education, 66*(25), 11.

King, W. R., & He, J. (2006). A meta-analysis of the technology acceptance model. *Information & Management, 43*(6), 740–755.

Magsamen-Conrad, K., & Dillon, J. M. (2020). Mobile technology adoption across the lifespan: a mixed methods investigation to clarify adoption stages, and the influence of diffusion attributes. *Computers in Human Behavior*. https://doi.org/10.1016/j.chb.2020.106456

Mishra, P., & Koehler, M. J. (2006). Technological pedagogical content knowledge: A framework for teacher knowledge. *Teachers College Record, 108(*6), 1017–1054.

Price, L., & Kirkwood, A. (2014). Informed design of educational technology for teaching and learning? Towards an evidence-informed model of good practice. *Technology, Pedagogy and Education, 23*(3), 325-347. https://doi:10.1080/1475939X.2014.942749

Robinson, L. (2017). Embracing online education: exploring options for success. *Journal of Marketing for Higher Education, 27*(1), 99–111. https://doi.org/10.1080/08841241.2016.1261978

Rogers, E. (2003). *Diffusion of Innovations*. (5th ed.). Free Press.

Scherer, R., Siddiq, F., & Tondeur, J. (2019). The technology acceptance model (TAM): A meta-analytic structural equation modeling approach to explaining teachers' adoption of digital technology in education. *Computers & Education, 128*, 13–35.

Sim, J., Saunders, B., Waterfield, J., & Kingstone, T. (2018). Can sample size in qualitative research be determined a priori? *International Journal of Social Research Methodology, 21*(5), 619-634. https://doi:10.1080/13645579.2018.1454643

Šumak, B., Heričko, M., & Pušnik, M. (2011). A meta-analysis of e-learning technology acceptance: The role of user types and e-learning technology types. *Computers in Human Behavior, 27*(6), 2067–2077.

Taherdoost, H. (2018). A review of technology acceptance and adoption models and theories. *Procedia Manufacturing, 22*, 960–967.

Tsang, E. W. K. (2014). Generalizing from research findings: The merits of case studies. *International Journal of Management Reviews, 16*(4), 369-383. https://doi:10.1111/ijmr.12024

van Oostveen, R., Muirhead, W., & Goodman, W. M. (2011). Tablet PCs and reconceptualizing learning with technology: A case study in higher education. *Interactive Technology and Smart Education, 8*(2), 78. https://doi.org/10.1108/17415651111141803

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly*, 425–478.

Webb, N. L. (1997). *Criteria for Alignment of expectations and assessments in mathematics and science education.* Research Monograph No. 6.

Wingo, N. P., Ivankova, N. V., & Moss, J. A. (2017). Faculty perceptions about teaching online: Exploring the literature using the technology acceptance model as an organizing framework. *Online Learning Journal, 21*(1), 15. https://doi:10.10.24059/olj.v21i1.761

Yeşilyurt, E., Ulaş, A. H., & Akan, D. (2016). Teacher self-efficacy, academic self-efficacy, and computer self-efficacy as predictors of attitude toward applying computer-supported education. *Computers in Human Behavior, 64*, 591–601. https://doi.org/10.1016/j.chb.2016.07.038

WRITING ACROSS THE RESISTENT DIVIDE: A LONGITUDINAL ANALYSIS OF TEACHING ASSISTANTS AND THE PERFORMANCE OF THEIR UNDERGRADUATE STUDENTS IN A WAC BUSINESS CLASS

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ABSTRACT

Recent scholarship has considered the relationships shared between Departments of Writing and Departments of English, a line of inquiry that brings into focus the place that Departments of Writing hold in universities. A natural extension of this conversation addresses the effectiveness of TAs in composition classrooms because TAs in composition classrooms, most especially Writing Across the Curriculum (WAC) classrooms, frequently hail from a multitude of disciplines rather than a centralized composition program. The research discussed in this paper considers the effectiveness of TAs assigned to teach discussion sections in a ten-week business writing course. Undergraduate students, after benefitting from TA-led weekly discussions about writing, crafted final exams that were then evaluated using a standardized rubric. The results of the undergraduate work were then compared among the three TA groups involved: Business TAs, English TAs, and General Humanities (excluding English) TAs. While all the TAs proved to be effective as writing instructors, the undergraduate students in the sections run by Business TAs and General Humanities TAs performed somewhat better on average than those students in the sections run by English TAs. The results of this study offer some evidence to support the arguments in literature that suggest English TAs may face different and unique challenges in teaching a composition course than TAs from other disciplines.

Though from a different discipline entirely, TAs from the School of Business consistently outperformed their English counterparts in a Business Composition classroom. The data that support this observation were mined from 2,590 final exams over a four-year period. The different TA populations (Business, English, and general humanities) had almost no discernible variance in the median. However, among their undergraduate charges, Business TAs saw a mean of 4.2957 on a six-point rubric while the TAs in the general humanities had a mean score of 4.3226, and, surprisingly, English TAs saw their undergraduates perform at a mean of 4.2778. All three sub-groups achieved a median score of 4.0 on a six-point rubric, so the focus of this study and discussion rests on the more finely granulated mean scores because this data reveal that TAs from English are marginally less effective than TAs in business when teaching business writing. Because of the close proximity between writing and English as disciplines, one would not be faulted for assuming that competence in one field would naturally lead to an equal competence in a neighboring field: such a position may be intuitive in nature. In the light of these data, however, such intuitive thinking may need to be re-examined. Programs involved in writing instruction should reconsider how they recruit, train, and develop TAs involved in teaching various forms of composition. The data raise the important question of how academic disciplines and backgrounds may affect the efficacy of TAs in writing classrooms. This study is valuable in part because of the large data sample. Over a four-year period, 953 undergraduate exams generated in sections under the auspices of non-business TAs were evaluated. The Business TAs over the same period of time led sections that produced 1,634 exams that were also evaluated using the same six-point rubric.

BACKGROUND

At its core, this study principally focuses on the writing competency of undergraduate students in an upper division Writing Across the Disciplines course, Business 100W. All the undergraduate students completed, either through coursework or testing, two full quarters of college writing courses prior to enrolling in this course.

Of specific interest is a comparison and analysis of the performances of undergraduate students in writing sections teaching assistants (TA) from different disciplines led. This study is relevant to all administrators, TAs, and instructors who are considering how the academic discipline of TAs affects the calculus of teaching writing. Those individuals affiliated with Writing Across the Curriculum (WAC) courses may take particular interest in this study because TAs, many of whom are housed in a multitude of disciplines outside of English, often staff such courses. The WAC TAs have different levels of exposure to formal writing pedagogy and often have different levels of familiarity with the English language. These factors among others that are derived from academic backgrounds, expectations, and experiences can have a significant influence on teaching praxis and effectiveness. A plethora of germane questions are important to ponder when staffing sections and structuring the training of TAs. Does academic discipline affect the ability to teach writing? If there are differences that can be identified in the undergraduate performances among the TAs from different disciplines, what might be contributing factors for those differences? Finally, can pedagogical strategies be developed to address weaker performances in TAs from different academic backgrounds if the academic background of TAs is a factor in classroom effectiveness? Should these strategies be sensitive to the academic

backgrounds of TAs? Finally, what strategies can be employed to build upon the strengths of TAs who seem to have an advantage in the classroom based on the TA's academic background?

The results of this study and the accompanying discussion may be able to illuminate some of the complex dynamics involved in TAs who cross disciplines to teach writing. More precisely, the study may help improve TA training by offering strategies that incorporate TA training in a more productive and effective structure.

LITERATURE REVIEW

Universities heavily depend upon TAs to staff their writing classes (Hartzog, 1986; L'Eplattenier & Mastrangelo, 2004). Parker, at el. (2015) observe in "Good Teaching Starts Here: Applied Learning at the Graduate Teaching Assistant Institute" that, in fact, the majority of first year undergraduate courses are taught by Teaching Assistants. The mission of the university to train these students is placed under strain in part because of the dual roles — that of teachers and students — graduate students must negotiate. The question of identity among Teaching Assistants, then, is a seminal one that many graduate students must address early in their academic careers when they are, perhaps, least prepared to grapple with such foundational questions. To complicate the dynamics further, the transitional nature of graduate students necessarily means that instability will be a constant factor in the WAC course because graduate students will always be transitioning into and out of these classes. While not a class for first year students, the Business 100W class nevertheless depended on graduate students to staff the discussion sections, so theoretically the Teaching Assistants assigned to these discussion sections were, like other graduate students responsible for other writing classes, in the act of negotiating identities and determining roles for themselves in the university.

A body of research complements this consideration of identity formation in Teaching Assistants by focusing on best practices for developing successful TAs. For example, "Teaching Assistant Competencies in Canada: Building a Framework for Practice Together" by Korpan, Sheffield, and Verwood (2015) delves into four conversations that inform the field about best practices in developing teaching competencies among graduate students through a mentoring program entitled *Teaching Assistant Consultant* (TAC). These strategies may be particularly helpful to WAC administrators who are actively engaging questions of identity among TAs from varying academic disciplines who are beginning their teaching careers in the writing classroom.

Hoessler and Godden's (2015) "The Visioning of Policy and the Hope of Implementation: Support for Graduate Students' Teaching at a Canadian Institution" evaluates and analyzes ten documents that provide a broad overview of policies, goals, and learning objectives for instructing graduate students. They identified mentoring, like that in the practicum and norming sessions employed during this study, to be a principal vehicle in training graduate students, and they also noted the serious constraints placed on programs because of finances. A number of scholars document the wide roles that Teaching Assistants must master: Blouin and Moss (2015) "Graduate Training Still Relevant (and Missing?) 20 Years Later"; Boman (2013) "Graduate Student Teaching Development: Evaluating the Effectiveness of Training in Relation to Graduate Student Characteristics"; Park (2004) "The Graduate Teaching Assistant (GTA): Lessons from North American Experience"; Weidert, et al. (2012) "A Survey of Graduate and Undergraduate Teaching Assistants"; and Ronfeldt and Reininger (2012) "More and Better Student Teaching." This

research considers best practices in graduate student training as well as some of the obstacles that typically interfere with the development of an identity as teacher in the graduate student ranks. What is not addressed, however, is how effective graduate students from different academic disciplines are once the training is complete and how, specifically, academic discipline may affect the full and mature development of the identity of a graduate student. These points are of primary importance in the analysis of this study.

Likewise, "'A Way to Talk about the Institution as Opposed to Just My Field': WAC Fellowships and Graduate Student Professional Development" (Cripps, Hall, & Robinson, 2016) reviews the survey responses of fifty Teaching Assistants from more than a dozen different academic disciplines, who serve as WAC Fellows (WF) in the CUNY WAC program. The WFs, putting into praxis the theory Jessica Yood proposes in "The Next Stage Is a System" (2004), expand their roles beyond teaching in the classroom. The approach is different from the very directed and highly supervised roles the WAC TAs in the Business class assumed. The research Cripps et al. presents, while providing insight into the benefits of expanding the WF role, did not consider the effectiveness of the TAs from different disciplinary backgrounds after they had received training in pedagogy. This question about TA effectiveness based on discipline is a complicated one because a multitude of variables need to be controlled and addressed (type of training provided to the TA, pre/post essay test, controls for grade inflation, and consistency of instruction). Without direct, consistent, and constant attention paid to such variables, the results of undergraduate student performance relative to TA discipline are difficult to parse. Such factors were meticulously addressed, but even with these controls, some variables present in the study still could not be restricted (like controlling for the initial level of competence among the undergraduate students).

Of particular interest to the study presented here is Sidney I. Dobrin's *Don't Call It That: The Composition Practicum* (2005), research that investigates some of the challenges of preparing TAs for the rigors of the first-year composition classroom. Specifically, Dobrin considers the concept of resistance and how expectations of TAs from the field of English Literature might be prone to more serious expressions of resistance (or "resistance theory" as coined in this study) to the composition classroom because English Literature TAs do not accept the position that the composition classroom experience provides fertile ground for highly relevant and practical job training. These insights are reinforced and expanded in Jennifer Kathleen Johnson's "What are we doing here, anyway?" (2013), an exploration of the attitudes and responses of Teaching Assistants from composition and from literature regarding their TA preparation. An approach designed to address this commonly observed resistance is further entertained in Christine Lawannah Vassett's dissertation *Resistance in Teaching Assistant Education: Surrendering through Learning-Centered Assignments* (2010).

All of these studies affirm and respond to much of what Sarah Alison Bright considers in her dissertation *Identity Development in TAs and Tutors: From Preparation to Practice* (2010). Bright investigates the identities that are developed in the TA population and how those identities reflect TA preparation. Bright also studies how the construction of identity affects teaching practices, pedagogy, and broader philosophy. That English Literature TAs form identities that are forged in and tethered to literature and not teaching composition is especially insightful because that research may provide some explanation for the lower scores identified in the undergraduate business students in this study taught by English TAs.

RESEARCH QUESTIONS

The literature identifies an innate sense of resistance that manifests itself in TAs from departments of English who teach first year courses, most especially those situated in composition. Equally insightful is that the literature does *not* identify such a dynamic among TAs in other disciplines. This study first and foremost addresses a major consideration that is not present in the literature: Namely, are TAs from the Department of English less effective as instructors than TAs from other disciplines in a discipline specific course like Business Writing? If so, what is the magnitude of that difference? If there is a difference in effectiveness, identifying and isolating the reason would be very challenging, and, drawing a correlation to a difference in effectiveness is, admittedly, very improbable because of the presence of a multitude of variables. Still, TA effectiveness in terms of background (academic discipline) and training can be gauged by isolating undergraduate student performance on a consistently administered and consistently graded essay exam that is patterned on the University of California Analytical Writing Placement Exam (AWPE). The results of the analysis from this study reveal that the least effective sub-group of TAs is, in fact, the TAs from the Department of English, and this finding seems to lend credence to the concept of strained identity that is discussed in the literature. Specifically, if TAs from the Department of English adopt an inherent, unacknowledged, and perhaps intuitive resistance to their role as composition instructors (as is suggested in the literature), then it is plausible that on some level that ingrained resistance is translated into applied pedagogies and, ultimately, may be expressed through undergraduate student achievement.

The literature specifically suggests that TAs from the Department of English are conflicted in identity and must overcome more challenges in the realm of praxis when working in a composition classroom than TAs from other disciplines. As mentioned earlier, the results from this study cannot draw a direct correlation between innate English Department TA resistance and classroom effectiveness; however, the results do suggest that the effectiveness of TAs from the Department of English slightly lags behind, for some reason(s), the effectiveness of the TAs from other departments. Any number of factors could account for this difference (quality of programs, individual undergraduates in the specific TA discussion sections, cultural dynamics between English and Writing, individual strengths and weaknesses among TAs, specific quarters taught, and general schedule variances to name only a few). Even so, the results of this study, at the very least, seem to support the observations and theories put forward in the literature to date. Clearly, more research will need to take place regarding this question. Future research should attempt to identify, if possible, a clear correlation between the academic background of TAs and the performance of business undergraduate students in those sections.

RESEARCH METHODOLOGY

This study concerned itself with the Business 100W course, "Management Writing and Communication," that is housed in the School of Business (Business). Recognized as a core course, this upper division class is required for all undergraduate students who major in business, so the course typically serves an average of 700 students a year, though that number fluctuates. The course is not limited to business majors, so a nominal number of undergraduate students outside

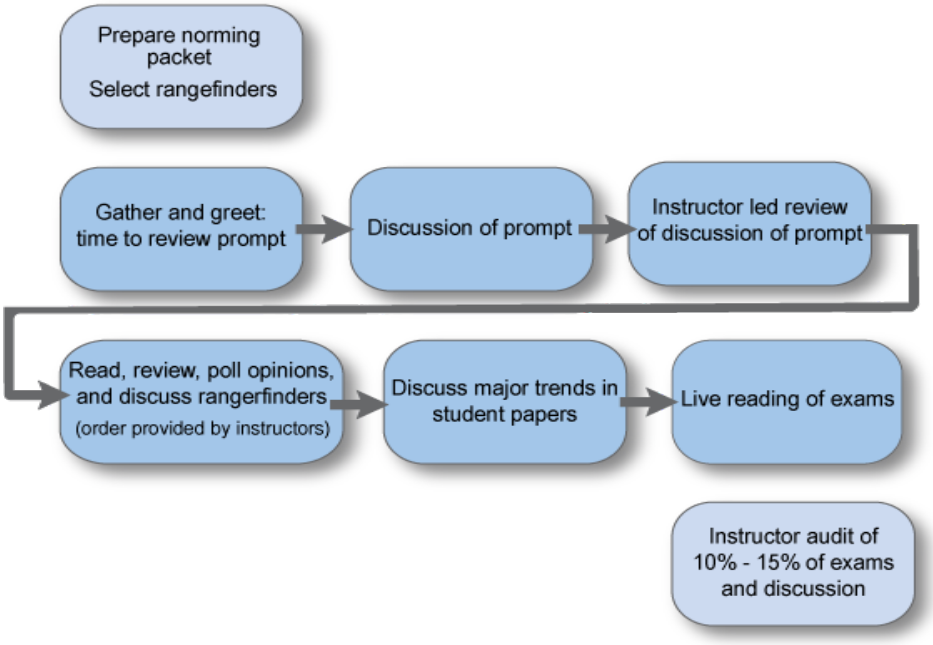
of the business major took the course during the four-year window. Undergraduate business students, then, principally populate this particular course that is directly ensconced in the business major. A "W" is attached to the catalogue nomenclature to denote its status as a Writing Across the Curriculum (WAC) course, and students who receive a "C" or higher in the course not only receive credit for the business core requirement of communications but also satisfy the third quarter university writing requirement. This requirement can be satisfied through other "W" courses or by taking a composition course, English 1C (intermediate applied composition). This study considers 2,590 writing samples from the same number of Business 100W students who took the course over a four-year period. Twenty-five graduate students from M.A. and Ph.D. programs served as Teaching Assistants (TAs) for the course teaching a total of one hundred and ninety-five discussion sections. The TAs, representing a variety of disciplines, were drawn from the following departments: Business, Music, Public Policy, Religious Studies, History, Political Science, and English. Some of the TAs served only a single quarter as a discussion instructor, but the majority of TAs served for at least one academic year or three quarters.

Because this research is an aggregate review of assigned grades by the instructor of record and no live subjects were part of the study, IRB exempted the study. No names are attached to any of the results. No identifying marks are attached to any TAs, and no writing samples from the undergraduates were published in this study. Only students who took the final exam had their writing samples evaluated, so there is no attrition attached to the population studied. The TAs and author of this research (Beehler) evaluated all of the writing samples following a strict norming protocol, and the norming process used to control for grading variables will be addressed in detail later in this section. All the final exam grades were recorded in Blackboard, the digital platform used for the course over the four-year period. Those scores were added together and then used to find median and mean scores for the different subgroups of TAs: English TAs, Business TAs, and non-English/non-Business humanities TAs. These three groups provided the data points necessary to address the question of resistance theory among English department TAs, inherent disciplinary knowledge among Business TAs, and general competence among a broader control group of non-English/non-Business humanities TAs.

Paul Beehler was responsible for the course throughout the four-year period under study, which established a consistent approach regarding training TAs and the reinforcement of that training. Before each academic year, all of the TAs assigned attended an orientation that explained the pedagogy and underpinnings of the class. The course was predicated on the concept of evaluation because this skill is so highly sought in the business community in upper management, and the final exam (which served as the writing sample for this study) reflected learning outcomes grounded in the application of evaluation. TAs were required to attend four norming sessions over the course of the quarter to prepare for the grading of the four written assignments and the essay-formatted final exam. Each norming session consisted of a discussion of the rubric (see the appendix), a discussion of the assignment, expectations of the student performance, and a detailed discussion of a set of rangefinders. The rangefinders were drawn from Business 100W students. Beehler oversaw all norming sessions to preserve consistency among the TAs and to guard against grade inflation. The norming sessions served as a forum for training and discussion, frequently yielding fruitful and spirited threads of thought about the rubric and standards; still, at the conclusion of every norming session without exception, a consensus was reached regarding the standards and expectations of six principal categories that generally reflected the expectations of the UC systemwide Analytical Writing Placement Exam (AWPE): 1 (a grade of "F" assigned to

an essay that is unacceptable because the work clearly fails to meet the requirements of the assignment), 2 (a grade of "D" for an essay that demonstrates significant problems because of a lack of control over both content and grammar), 3 (a grade of "C-" to indicate an essay that is unsatisfactory for one or more stated reasons -- syntax, sentence level errors, coherence in reading and writing), 4 (a grade of "C" to indicate an essay that is satisfactory because the paper generally fulfills its goal, though some parts of the paper may be marginal in terms of quality), 5 (a grade of "B" for an essay that is clearly competent and has moved beyond the basics of the assignment requirements to present a thoughtful and insightful response to the assignment), and a 6 (awarded to an essay deemed excellent because it fulfills all of the requirements for the assignment and may do so in an interesting and creative way that commands attention. For the sake of accuracy, the instructor reviewed and discussed grades TAs assigned throughout the process. Before grading without supervision, TAs had to demonstrate accurate scoring on three live essays out of a typical set of forty papers. With each attempt to satisfy the expectation of norming, a discussion ensued over email about the merits of the student paper under review and where that paper fell in the rubric. All of the norming sessions and the initial orientation were then further reinforced through weekly in-person meetings among the TAs to discuss the progress of students and pedagogical challenges. These meetings were housed in a credit bearing graduate level course, 302, that was supervised by the Coordinator of WAC. This extensive training and scaffolding structure was necessary to establish consistency among the TAs throughout the grading process as well as to curb grade inflation (see figure one).

Figure 1:



During the course of the quarter, TAs met with three sections of up to seventeen students in each section on a weekly basis, so TAs were responsible for a maximum of fifty-one students. While the TAs did discuss all aspects of the course, one of the primary expectations was to prepare

the undergraduate students for the final exam at the end of the quarter by assigning and discussing five to seven articles a week from *The Economist*. In short, the TAs were assigned several tasks during the quarter, but the primary responsibility of the TAs was to prepare their undergraduate students for the final exam. While some modeling of appropriate responses for the final exam did take place in the large lecture course during the final week of instruction, the TAs were largely responsible over the ten-week quarter for scaffolding the writing assignments and, ultimately, preparing students for the essay final exam. Some of the weekly 302 meetings were dedicated to discussing best practices regarding writing, grading, and preparing students for the final exam at the end of the quarter.

This study is an attempt to isolate as many variables in the four-year period as possible in an effort to evaluate the effectiveness of TAs who hail from different academic backgrounds. Several seminal questions drive this study. Is there a meaningful difference in the efficacy of TAs from different academic disciplines? If there is a difference in effectiveness, then what might account for that difference? If there is no difference in effectiveness, what might account for the monolithic performance of students in discussion sections? These questions and others will serve as the touchstone for this study and the discussion of the results.

One of the key components of the course under review was the final exam, a two hour and forty-five-minute test that in form and standards closely approximated the university statewide Analytical Writing Placement Exam (AWPE). The statewide AWPE has a close reading element just as the final exam did in Business 100W. Students are expected to respond to some aspect of a four hundred word reading sample in both exams. The exams, however, differ in that students taking the AWPE are expected to generate examples to support a response, often position oriented, to the reading. The Business 100W final exam, however, requires a more sophisticated consideration of the material by also expecting students to provide a well-organized and detailed *evaluation* of an article gleaned from *The Economist*. As such, the final exam for Business 100W is cognitively more demanding and complex than the AWPE, but the AWPE serves as a strong reference point for the design and evaluation of the final exam.

The final exam in Business 100W has a norming session dedicated to it that is patterned on the established AWPE norming approach, and the exam is committee graded. TAs graded the final exams without having access to the undergraduate student names attached to the exams, so anonymity was preserved in an order to eliminate bias. After closely reading an article from *The Economist*, the undergraduate students were expected to craft an essay responding to the following prompt that had the question marks replaced with the specific information for each exam: "Read the article entitled '????' from the most recent edition of *The Economist*. Evaluate the article as you see fit." The exam, one that mirrored the AWPE in general form and standard, provided students an opportunity to demonstrate their ability to read a business-oriented text designed for a business audience and then to evaluate the arguments and writing of that text. After the norming session, the TAs graded the exams through a committee-based approach. The instructor reviewed fifteen to twenty percent of all graded final exams, again to insure consistency in the grading process. The result of the final exam, that is the proficiency of undergraduate performance in the timed writing of the course, is the sole subject of this study.

WORKING THEORY

Recognizing that the University was asking graduate students, individuals who are neophytes to the world of teaching and sometimes to specific pedagogical processes of composition, to step outside of their developing field of expertise exposed many questions and challenges, most especially in terms of supporting and nurturing these newly minted scholar-teachers. Conventional wisdom suggests that English TAs, perhaps because of their broad exposure to language and intuitive grasp of the material, might have an advantage when teaching discussion sections for a WAC course. On the other hand, it was interesting to see whether business TAs might, instead, have an advantage teaching the discussion sections because of their greater command of the actual subject material and their presumably inherent interest in the field. Two-thirds of the business TAs self-identified as second language learners, a sub-group that potentially could face additional obstacles when teaching undergraduates in a WAC course. Some conclusions can be drawn from this study, but some variables ultimately could not be controlled, such as the following: How advanced were the undergraduate students when they first entered the course? No pre-test or writing diagnostic was administered before the classes began, so this study cannot provide a definitive answer to the question. Can progress be accounted for? What might individual progress among the undergraduate students reveal about TA effectiveness? In other words, can some commentary be generated around not just basic levels of passing or achieving a score of "4" or higher on the final exam as is considered here? Can any broad conclusions be drawn about the more complicated question regarding undergraduate improvement in writing? A comparison of diagnostics with final exam performances might help better address some of the more pressing questions here. From the data compiled about student performance coupled with exit surveys from the TAs, one can consider some key questions, but some variables still elude the study. For example, how consequential of a factor is TA experience relative to undergraduate student performance on the final exam? The intense and ongoing training was an attempt to mitigate this variable in the TA population. Some of the undergraduate students, however, may very well have benefited specifically from one particular General Humanities TA who served for the entire four years as an instructor. Most of the other TAs served between one and three quarters, the majority of whom served for three quarters, a period of time that equates to a full academic year.

RESULTS

Quantitative Analysis

The entire sample for the study included 2,590 undergraduate final exams for a combined raw total of 11,146 points based on the applied rubric. Each exam was scored on the six-point rubric explained above, so each exam could receive a maximum of six points and a minimum of one point. A total of one hundred and ninety-two discussion sections (data for three sections under the direction of a TA from the Department of Business could not be secured) with a maximum student enrollment of seventeen students per section were taught by the TAs over the four-year period. The median score of the exams for all students is a 4.0. The median score for all sections, or a total of 953 exams, taught by instructors outside of the discipline of business is a 4.0. So too is the case, a median score of 4.0, for all sections -- or 1,634 exams -- taught by instructors in the discipline of business. The only notable exception to the median scores involved the TA who

taught for the entire four-year study, and this TA had a median score of 5.0 for eighteen of twenty-four sections. The remaining six sections had a median score of 4.0. Multiple factors may account for the particularly strong performance of the undergraduate students in these eighteen sections: past teaching experience, past training, extensive experience in Business 100W, section size, pedagogy, professional background, academic background, and general style of teaching.

Because the mean score for all individual sections narrowly fluctuated between a 4.0 and a 5.0, one can reasonably conclude that the calculated median scores for all sections — that is all business TA sections and all non-business TA sections — indicates a strong overall pass rate for all undergraduate students who took Business 100W. The hallmark of a 4.0 essay is that it "generally fulfills its goals," so work of this caliber is acceptable at the university level. Exams scored at a 5.0 are "clearly competent" and have "moved beyond the basics of the assignment requirements presenting a thoughtful and insightful response." Exams scored at either the 4.0 or 5.0 end of the rubric, then, are recognized as satisfying the expectations of college writing, and, in some cases, exceeding those expectations.

A scored exam identified as a 4.0 is not without its flaws, but those flaws are not fatal as the language of the rubric expresses: "A four paper will ordinarily have weaknesses but should not have deficiencies. This paper will have a central idea and recognizable organization. Paragraphs will contain sufficient information for the ideas to be clear, and sentences may contain only isolated errors in grammar and mechanics. Weaknesses often include a focus that is too general, too narrow, too shallow, or too predictable to allow the student any real engagement with the material leaving the paper void of any sense of the writer's voice or personality. Also, this paper may lack necessary transitions and connections leaving the reader with questions. In general, however, this paper constitutes a satisfactory response within the context and parameters of the assignment."

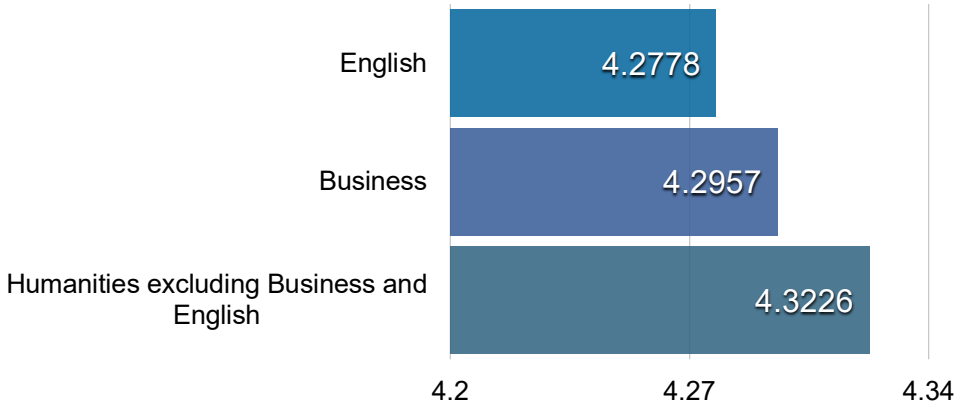
The mean provides more finely defined differentiation and a more robust picture of student performance, but, interestingly enough, not much more differentiation occurs between the different sub-groups of TAs. The overall mean for all 2,590 final exams is 4.3018. For TAs from the discipline of business, the mean of those 1,634 exams is 4.2957. This mean is slightly lower than the mean of the 953 exams taken by students under the tutelage of TAs outside the discipline of business: 4.3124. While there is a difference between the means of .167, that difference in light of a 6.0 scale is nominal at best. Critically, both means are above the passing mark of 4.0. Essentially, then, all of the TAs, regardless of academic discipline, saw all of the undergraduate students, on average, perform equally well on the final exam in that the average and mean scores were in the upper half of the scoring rubric. As was the case with the median, the mean indicates that students across the spectrum over the four-year period were capable of generally fulfilling their goals and received passing scores for the work they generated during the in class writing exam.

Traditional thinking often suggests that those TAs from English, because of their close proximity to writing and grammar and perhaps natural affinity for the subject, might be stronger instructors in the classroom when teaching writing, even when operating in a classroom outside of their discipline such as a WAC course in business. The statistics, however, do not bear out such intuitive thinking. The results from all the sections suggest that the academic background of the graduate students who run the discussion sections for the WAC course Business 100W has only a marginal influence on the success of the undergraduate students.

Perhaps the most noteworthy observation is that the median number for all TAs is the same, and the statistics illuminating the means for the three groups are remarkably close in value: 4.3226

for non-business non-English TAs (of a sample of 737 exams), 4.2957 for TAs housed in the Department of Business (of a sample of 1,634 exams), and 4.2778 for Department of English TAs (of a sample of 215 exams). A mere .0448 separates the mean of the Department of Business TAs, the highest mean of these sub-groups, from the Department of English TAs, the lowest mean of these sub-groups. Essentially, all the undergraduate students in all the discussion sections seemed to have the same opportunity to succeed and thrive in the course under the direction of the TAs.

Figure 2: Mean Scores of Undergraduates with TAs



Qualitative Analysis

These statistics raise the question of why such little difference exists in the performance of undergraduate students between the different sections taught by different TAs. Over the four-year period, innumerable casual conversations took place, and TAs often commented on the class during the ninety-six weekly meetings and forty-eight grading/norming sessions. From these conversations can be gleaned some insights.

At no point did any of the TAs note the importance of the general orientation session that took place during the beginning of the year. The intention of the ninety-minute orientation was to explain the pedagogy and course schedule. Part of the orientation was also designed around a discussion of best practices, and these discussions did reveal some differences in perspectives among TAs about expectations for undergraduate writing.

Discussions and observations about the norming sessions, however, were detected in fully thirty-seven of the ninety-six weekly meetings or thirty-nine percent of the weekly sessions. Only one TA over the four-year period dismissed the norming sessions as unnecessary. Most expressed open appreciation for the sessions because they established a clear and universal standard, one that helped fight subjective evaluation practices and grade inflation. Such a reaction suggests that, regardless of academic background, the TAs benefitted from frequent conversations about standards.

The norming sessions, however, were not exercises in harmonious agreement. Indeed, eleven of the forty-eight norming sessions or twenty-three percent of the sessions involved significant disagreements about grades assigned to the writing responses of the undergraduate students. These eleven sessions had spirited debates and, ultimately, all but three sessions (six percent of all sessions) resulted in a full and immediate consensus regarding grades issued to

papers. The three sessions noted above required a more extended norming period that, like the other sessions, ultimately resulted in consensus. When the norming sessions became more contentious, the instructor of record needed to shepherd the TAs through a careful analysis of the different markers of each essay to establish a precise and articulated standard. Such intense discussions and practices have far reaching consequences. TAs become much more attuned to the expectations of the rubric because they recognize that papers will be scrutinized carefully and then matched to the language in the rubric.

One aspect of the norming sessions involved the admittedly repetitive but necessary review of the rubric before a thorough discussion of undergraduate responses, so the language of the different grading thresholds was read aloud and carefully deliberated before collectively reviewing and discussing range finders for each letter grade demarcation. The regular norming sessions provided a theater that reinforced accountability among the TAs and undergraduate students alike (the undergraduate students were made aware that the final exam would be committee graded. This transparency is important in the evaluation process because TAs and undergraduates alike interpret the process as universal and standardized). Such a process helps establish a certain transparency that can dispel the perception of subjective grading – a benefit that TAs and undergraduates alike enjoy. To further reinforce this culture of consistent standardized expectation among TAs and undergraduate students, the instructor of record reviewed and commented on ten to twenty percent of the graded papers. This nexus between the TAs and the instructor offered more opportunities for dialogue regarding grading and expected undergraduate achievement, so a continuous refinement of the norming process took place while exams were actively being evaluated. All parts of this process led to a more refined understanding about expectation and a deep collective appreciation regarding how to communicate and describe such expectations. Serving to regularly reinforce expectations and grading accountability, the norming process seems likely to have removed some of the ambiguities of grading. The complex process of writing naturally resists such a mechanical and reductive, almost formulaic really, approach towards the activity of thought, evaluation, and articulation. Still, a common complaint among undergraduate students in writing courses remains, that of *perceived subjectivity*. The presence of regular norming sessions does allow a more readily recognizable structure to be communicated through rubrics that are incorporated into the syllabi. The approach also helps to account for the potentially different perspectives brought to the grading table that are possibly derived from different academic disciplines. Ultimately, all the sections from all of the TAs had mean and median scores that placed their undergraduate students in the upper half of the rubric, and this success is likely influenced by the forty-eight norming sessions and ninety-six weekly meetings.

While almost all of the TAs expressed appreciation for the norming sessions, one reservation was mentioned in passing. This TA casually noted that the norming sessions could devolve into general and unproductive complaints about student behavior. This concern about sessions moving outside of the purpose of norming is reasonable, but no TAs ever lodged formal complaints suggesting that the sessions lacked discipline.

Being aware of and sensitive to the stresses associated with WAC classes, especially because of the diverse academic backgrounds of TAs, is particularly important if WAC classes like Business 100W are to succeed. Though no grievance about labor was ever filed on behalf of the TAs, quiet complaints did surface, and these concerns deserve acknowledgement. Sometimes these complaints took the form of asking for extensions to grading deadlines. Sometimes the vehicle of a joke was used to express concerns about the amount of work attached to the WAC

course. At other times, TAs directly raised the question of workload and wanted to discuss best practices to address workload concerns. Notably, the TAs have many demands made of them in part because they must operate outside of their primary fields of study. That means time devoted to grading can be more onerous, and instructors should be aware of this factor when working with TAs from different disciplines. In order to remain within the workload expectations established through union contracts, the norming sessions were eventually changed from a standalone sixty-minute meeting for each assignment to a forty-five-minute session that was housed in an already mandated TA meeting. While the migration of the norming sessions into 302 did save the TAs time in that they did not have to attend an additional norming meeting, concerns about not having guidance in the process were voiced. The norming sessions may have also helped the TAs adjust to the role of writing instructor, and by doing so may have tangentially alleviated some of the problems that take place in the classroom of the English TAs when resistance theory is taken into consideration. The TAs seemed to appreciate the norming sessions as a tool to facilitate grading in such a way that the process became smoother and more efficient, and the regular meetings may have also had a more lasting effect on the development of their identities as instructors. Mentioned during every quarter of 302 was a concern about how to grade essays. TAs from all disciplines, though, expressed a significant sense of confidence about grading once they had engaged in the process for the first time early in the quarter. According to one TA, connections between the rubric, syllabus, and grading practices were particularly important in establishing a sense of comfort about evaluating essays.

As time consuming as the norming process was, the TAs from all academic backgrounds expressed routine appreciation because the process afforded opportunities for discussion, guidance, and correction. The auditing of graded papers that occurred throughout the grading period seemed to be especially beneficial in this sense because it reinforced the training that took place during norming. The ideas TAs expressed, through a series of spontaneous and casual conversations, shed some light on why the student performance on the exams often demonstrated very little difference in quality, at least in terms of the mean and median scores of the final exam essays.

DISCUSSION

The results of this study were surprising in that the undergraduate students in those sections taught by the TAs from the Department of Business and other departments in the humanities, on balance, performed slightly better than TAs from the Department of English. Because of the kinship shared between the Writing Program and the Department of English, one would not be faulted for assuming that TAs from the Department of English might be more effective in a business writing class than TAs from other disciplines. On reflection, though, these results perhaps should have been anticipated because of the research and literature written about the concept of innate resistance among English Department TAs in composition classrooms. This study seems to support the claims and observations made in the field about English Department TAs and the challenges those TAs face regarding academic identity and resistance between disciplines that have been historically considered to be very close in nature — indeed, many composition programs to this day are housed in some fashion in the Department of English. The results from this study taken in context with research and theory suggest that TAs in the field of English face more

stringent obstacles in teaching composition, not fewer. Further, those obstacles are often not recognized by the TAs themselves. These obstacles may very well be compounded by the formal relationship — that of an umbrella that blurs the boundaries between Composition and English — shared between Composition and English as well as the individual relationships shared between faculty members of the two disciplines. What is missing in the immediate discussion is why the English TAs were less likely to coax stronger performances from their undergraduate students. The results in this study clearly establish that the English TAs from the sections under consideration did not see the same strong performance from their students as compared to the sections taught by Business TAs and Non-English/Non-Business TAs from the humanities.

In light of the literature in the field, current theory, and these data, TAs from English would likely benefit from additional preparation and discussions of pedagogy, or, at the very least, some adjustment to TA training by taking into account the theoretical concepts of identity and resistance. Because of the complex relationship between Writing and English and its evolving dynamic nature, how writing courses address the training of English TAs should be acknowledged as a particularly delicate matter. If proper adjustments are made, the English TAs could likely become even stronger instructors in writing than they already are, benefitting the undergraduate populations they serve. This supposition is based on the close relationship that binds the two disciplines — the English language. If, however, the adjustments are mishandled, the likelihood of intensifying the resistance and alienation of the English TAs could significantly and adversely impair the ability for English TAs to be highly effective instructors in the classroom.

Structurally, graduate students from English would benefit in a more precise articulation of identity. In other words, English TAs should be recognized as fully English TAs and not as TAs who are equally competent and qualified in the field of English *and* Writing. To clarify and distinguish this identity so as to address resistance theory in the classroom, English Departments should be fully separated from Writing Departments. The nomenclature used for writing courses should also reflect this clear separation of identity, so composition courses should be listed as "Writing Courses" or "Composition Courses" and not as "English Courses." This clear difference of discipline as acknowledged in the nomenclature may encourage graduate students in English to approach writing courses as they would a different discipline, and that adjustment could lead to a greater willingness to engage the demands in ways that seem, on the outset, to be effective for TAs in other fields. In other words, accounting for complications that accompany resistance theory could generate greater efficacy among TAs from Departments of English.

Recognizing and reinforcing among faculty the separation between English Departments and Composition Departments could also attenuate the resistance English TAs seem to encounter. If faculty members from English generally recognize that Composition is a separate and discrete field (of equal value in the university), they will likely defer questions about composition, theory, and pedagogy to the faculty members in Composition. Such a process will further fortify the identity of composition instructor as distinct from English instructor. Again, a direct separation would likely lead to a diminishment of resistance because one academic group would likely no longer think they hold expertise or authority over another academic group. The lines of expertise would be clearly established for English TAs who are placed in writing classrooms. The beneficiaries of such clear delineation would be many: English TAs, English Departments, writing administrators, and, most importantly, undergraduate students in WAC courses.

Additionally, some direct approach towards the TAs from English Departments seems warranted. Again, this approach would need to be handled gingerly so as not to antagonize further

the inherent resistance already present in the English TA population. Orchestrating individual conferences for all TAs in place of some larger seminar meetings when preparing TAs for the classroom would probably be an effective approach in terms of mentoring. The individual conferences for the English TAs could directly address concerns that pertain only to that population while the sessions assigned to TAs from other departments could emphasize additional and general training. An individual approach, if applied to all TAs, would avoid the appearance of singling out any one group and thereby contributing to the resistant divide. Simultaneously, the most serious concerns as they pertain to identity and, specifically, resistance theory as presented in this article can be directly addressed on an individual basis.

In fact, a concern that might be foregrounded in the individual meetings could be the concept of resistance in the English TA population. A smaller and more intimate conference setting may be more effective in addressing these complex dynamics of identity and discipline. Possibly, generating an awareness of this dynamic could in and of itself help to diminish its adverse consequences on the English TA praxis and pedagogy.

CONCLUSION

While clearly labor intensive, the inclusion of a three hour in-class final examination that is predicated on writing and reading is essential for this large lecture course because the exam provides a controlled environment that accurately measures student ability. Arguably, the same statement can be put forth for any course that includes any writing. That undergraduate students, regardless of the discipline of the TA in charge of the section, on average satisfied the writing requirement as noted in the final exam performances is encouraging. The presence of norming sessions is particularly important for establishing, among TAs and undergraduates alike, clear expectations and transparent pathways to achieving those expectations. The results considered in this survey were surprising in that the undergraduate students under the aegis of English TAs performed slightly worse than those under TAs from other disciplines. The literature and theory, though, point to the concept of resistance theory among English TAs, and the results from this study support the presence of resistance theory in English TAs who teach writing classes. Still, it is worth noting that the difference in undergraduate performance between the different groups of TAs was slight, and the general ability of all TAs from all disciplines to develop the undergraduate writing to a satisfactory level across the board suggests that differences between the TAs hailing from different disciplines can be, and should be, erased through a series of norming sessions. If TAs from English Departments can effectively address the disciplinary resistance that occurs in the writing course, these TAs potentially could be even more effective in the composition classroom than they currently are. The norming sessions, intense orientation, individual conferences, and continued professional support in the form of regular academic seminars are key to helping TAs cross the disciplinary divide and account for resistance theory. Such practices will also help achieve valuable uniformity in grading and expectation. Ultimately, these approaches should be overseen by a composition specialist to ensure consistency.

DIRECTIONS FOR FURTHER RESEARCH

This study seems to provide quantitative data that may suggest the presence of a phenomenon, resistance theory, Bright (2010) begins to consider in her work. Additional research and development of resistance theory should, of course, take place in light of these data. The observations and concerns are particularly timely considering the national emergence and evolution of discrete Departments of Writing that often have their roots embedded in Departments of English. This trend in the advancement of the discipline is noted in Greg Giberson and Thomas Moriarty's (2010) text *What We Are Becoming: Developments in Undergraduate Writing Majors*. In particular, the work of several contributors to the collection speaks directly to the new roles of writing programs and departments: Rebecca de Wind and Patricia Harkin ("A Major in Flexibility); Randy Brooks, Peiling Zhao, and Carmella Braniger ("Redefining the Undergraduate English Writing Major: An Integrated Approach at a Small Comprehensive University"); Lisa Langstraat, Mike Palmquist, and Kate Kiefer ("Re-Storying Disciplinary Relationships: The Development of an Undergraduate Writing Concentration"); and Sanford Tweedie, Jennifer Courtney, and William Wolff ("'What Exactly Is This Major': Creating Disciplinary Identity through an Introductory Course"). Another collection, *A Field of Dreams: Independent Writing Programs and the Future of Composition Studies* edited by Peggy O'Neill, Angela Crow, and Larry Burton (2002) also addresses the complex relationship shared between English Departments and Writing Departments. As the field of writing continues to evolve and develop in universities, approaches to addressing the resistance among TAs from the Department of English specifically through an understanding and consideration of resistance theory will need further consideration. For example, cataloging best practices among universities as they train graduate students specifically from Departments of English will be helpful for writing programs that provide pedagogical instruction to this subset of graduate students. Further research that identifies and evaluates different approaches adopted in training TAs from different disciplines, and the results of those approaches, will also be of great assistance as writing programs continue to adapt within universities. Such future studies should address the structural position of writing programs within universities and their specific relationship to Departments of English.

These data were initially presented at the 2018 Conference on College Composition and Communication (CCCC). Some of scholars in attendance had curious reactions that are worth commenting upon. Several scholars from Brazil expressed concern that TAs who were native English speakers without formal training in grammar and syntax were inherently considered to be more qualified to teach classes in composition because they hailed from departments of English. The concerns of these Brazilian scholars were grounded in the belief that non-native speakers often have more intense training in formal rules of grammar and syntax than native speakers precisely because of their non-native backgrounds. Again, the vigorous discussion at CCCC pointed to another avenue that could be pursued in the research. Can those TAs who are further from the discipline (fields outside of English) and those TAs further from native speakers (TAs who are non-native speakers) be more effective as composition instructors precisely because of this academic distance? Anxiety about writing is not uncommon among students, so whenever possible, impediments that interfere with successfully crossing the divide of envisioning oneself as a non-writer to envisioning oneself as a writer must be attenuated. One of the challenges students may be facing is the subtle and innate resistance to teaching composition among instructors themselves. As such, writing across the resistant divide could potentially prove challenging. These

data suggest that entering a writing classroom from the perspective of a field outside of English could serve as an advantage rather than a disadvantage in disrupting the divide. Scholars could consider whether or not there is an impetus to learn the fundamental structures of the language because of an inherent insecurity regarding the language (as the Brazilian cohort suggested). These questions could function as the basis to understand what might be an innate resistance that uniquely challenges TAs from the field of English.

Quantitative research, perhaps in the form of surveys and focus groups, could further investigate the perceptions faculty members in Writing hold regarding English and the perceptions English faculty members hold regarding writing. Illuminating these relationships and perceptions shared between faculty members may produce pertinent insights into how TAs from English perceive writing and their role in writing classrooms. The concept of resistance may then be more fully understood and addressed. Ultimately, what is suggested in this study is that there is a special relationship between writing and English that should not be ignored. Finally, future scholarship should investigate the nature and specific parameters of this relationship to illuminate it while also identifying the best pedagogical strategies that can be used to strengthen and support the English department TAs who enter the field of writing.

REFERENCES

Blouin, D. & Moss, A. (2015). Graduate student teacher training: Still relevant (and missing?) 20 years later. *Teaching Sociology*, *43*(2), 126-136.

Bowman, J. (2013). Graduate student teaching development: Evaluating the effectiveness of training in relation to graduate student characteristics. *Canadian Journal of Higher Education*, *43*(1), 100-114.

Bright, Alison Sarah (2010). *Identity Development in TAs and Tutors: From Preparation to Practice* (Doctoral dissertation). Available from ProQuest Dissertations and Theses Database in ERIC. https://search.proquest.com/docview/881472778?accountid=14521

Cripps, M. J., Hall, J., & Robinson, H. (2016). "A way to talk about the institution as opposed to just my field": WAC fellowships and graduate student professional development. *Across the Disciplines*, *13*(3). https://search.proquest.com/docview/1871576768?accountid=14521

Dobrin, S. I. (Ed.). *Don't call it that: The composition practicum*. (2005). National Council of Teachers of English.

Hartzog, Carol P. (1986). *Composition and the Academy: A Study of Writing Program Administration*. New York, NY: Modern Language Association of America.

Hoessler, C. & Godden, L. (2015). The visioning of policy and the hope of implementation: Support for graduate students' teaching at a Canadian institution. *Canadian Journal of Higher Education*, 45, 83-101.

Korpan, C., Sheffield, S., & Verwood, R. (2015). Assistant competencies in Canada: Building a framework for practice together. In *Collected Essays on Teaching and Learning*. https://www.researchgate.net/publication/315977328_Teaching_Assistant_Competencies_in_Canada_Building_a_Framework_for_Practice_Together

L'Eplattenier, B. & Mastrangelo, L. (2004). Historical Studies of Writing Program Administration: Individuals, Communities, and the Formation of a Discipline. *Lauer Series in Rhetoric and Composition*.

Johnson, Jennifer Kathleen (2013). *"What Are We Doing Here, Anyway?" An Explanation of the Attitudes and Responses of Teaching Assistants from Composition and Literature Regarding Their TA Preparation* [Doctoral Dissertation]. ProQuest Dissertations and Theses Database in ERIC.

Park, C. (2004). The graduate teaching assistant (GTA): Lessons from North American experience. *Teaching in Higher Education*, *9*(3), 349-361.

Parker, M., Ashe D., Boersma, J. Hicks, R., & Bennett, V. (2015). Good Teaching Starts Here: Applied Learning at the Graduate Teaching Assistant Institute. *Canadian Journal of Higher Education*, 45, 84-110.

Ronfeldt, M., & Reininger, M. (2012). More or better student teaching? *Teaching and Teacher Education: An International Journal of Research and Studies*, *28*(8), 1091-1106.

Vassett, C. L. (2010). *Resistance in teaching assistant education: Surrendering through learning-centered assignments* [Doctoral dissertation]. ProQuest Dissertations and Theses database.

Weidert, J., Wendorf, A., Gurung, R., & Filtz, T. (2012). A survey of graduate and undergraduate teaching assistants. *College Teaching*, *60*(3), 95-103.

Yood, J. (2004). The next stage is a system: Writing across the curriculum and the new knowledge society. *Across the Disciplines*, 1.

APPENDIX

Rubric for Business 100W Final Exam

A
Excellent/Outstanding
A Paper: An "A" paper fulfills all the requirements for the assignment and may do so in an interesting and creative way that commands attention. The paper will be clearly and interestingly organized, demonstrate the ability to use transitions, and will include effective support. An "A" paper will not only employ excellent word choice, and use sophisticated sentences effectively, but also it will contain stylistic devices which illuminate the material. An "A" paper looks professional but at the same time displays an authorial voice.

B
Good/ Competent
B Paper: A "B" paper is clearly competent and has moved beyond the basics of the assignment requirements presenting a thoughtful and insightful response. A "B" paper is usually less fluent and complex in style than an "A" paper. The paper will be well organized and have good transitions between paragraphs, and the ideas within those paragraphs will be explained fully and clearly. Sentences are structurally complex enough to enhance meaning and are usually free of grammar, usage, or punctuation problems, though there may be occasional awkward phrases or errors. The vocabulary employed in the essay will generally be accurate and clear, but may not be the most effective. There is often some sense of the voice or personality of the writer and some sense of a cohesive style, but this may be occasionally disrupted. Overall, the reader can sense that the writer is engaged with the topic and has something important to say about it.

C
Adequate/ Satisfactory/Acceptable
C Paper: A "C" paper generally fulfills its goal. A "C" paper will ordinarily have weaknesses but should not have deficiencies. This paper will have a central idea and recognizable organization. Paragraphs will contain sufficient information for the ideas to be clear, and sentences may contain only isolated errors in grammar and mechanics. Weaknesses often include a focus that is too general, too narrow, too shallow, or too predictable to allow the student any real engagement with the material leaving the paper void of any sense of the writer's voice or personality. Also, this paper may lack necessary transitions and connections leaving the reader with questions. In general, however, this paper constitutes a satisfactory response within the context and parameters of the assignment.

C-
Unsatisfactory/Needs Improvement
C- Paper: A "C-" paper will be unsatisfactory for one or more reasons. It may be appropriate to the assignment at times, but lack overall focus or coherence. Usually it will neglect or fail to respond to at least one essential requirement of the assignment. It may have several major grammatical errors that inhibit the reader's ability to follow or understand portions of the essay or have repeated minor errors that demonstrate an inability to regularly observe the conventions of

written English. Although it is not a passing grade, a "C-" paper shows some potential and gestures toward fulfilling the assignment.

D
Significant Problems/Does Not Meet Requirements
D Paper: A "D" paper demonstrates a lack of control over both content and grammar, or a very serious deficiency in one of those areas. It may be inappropriately brief, may disregard the assignment's demands, may have serious structural problems and may frequently drift from the topic. It may have significant and frequent mechanical errors, and transitions will be sporadic and marginally effective. A "D" paper employs simplistic or inaccurate word choice, monotonous or fragmented sentence structure, and repeated major and minor errors in grammar and usage that cause confusion or even render portions of the essay incomprehensible. Additionally, a "D" paper often looks unprofessional and may seem as if no care went into its production.

F
Unacceptable
F Paper: An "F" paper critically fails to meet the basic requirements of the assignment. It will generally also display fundamental deficiencies in both grammar and structure. It may be completely off topic or incomprehensible.

Analytical Writing Placement Exam (AWPE)
Scoring Rubric

In holistic reading, raters assign each easy to a scoring category according to its dominant characteristics. The categories below describe the characteristics typical of papers at six different levels of competence. All the descriptions take into account that the papers they categorize represent two hours of reading and writing, not a more extended period of drafting and revision.

A 6 paper commands attention because of its insightful development and mature style. It presents a cogent response to the text, elaborating that response with well-chosen examples and persuasive reasoning. The 6 paper shows that its writer can usually choose words aptly, use sophisticated sentences effectively, and observe the conventions of written English.

A 5 paper is clearly competent. It presents a thoughtful response to the text, elaborating that response with appropriate examples and sensible reasoning. A 5 paper typically has a less fluent and complex style than a 6, but does show that its writer can usually choose words effectively, and observe the conventions of written English.

A 4 paper is satisfactory, sometimes marginally so. It presents an adequate response to the text, elaborating that response with sufficient examples and acceptable reasoning. Just as these examples and this reasoning will ordinarily be less developed than those in 5 papers, so will the 4 paper's style be less effective. Nevertheless, a 4 paper shows that its writer can usually choose words of sufficient precision, control sentences of reasonable variety, and observe the conventions of written English.

A 3 paper is unsatisfactory in one or more of the following ways. It may respond to the text illogically; it may lack coherent structure or elaboration with examples; it may reflect an incomplete understanding of the text or the topic. Its prose is usually characterized by at least one of the following: frequently imprecise word choice; little sentence variety; occasional major errors in grammar and usage, or frequent minor errors.

A 2 paper shows serious weaknesses, ordinarily of several kinds. It frequently presents a simplistic, inappropriate, or incoherent response to the text, one that may suggest some significant misunderstanding of the text or the topic. Its prose is usually characterized by at least one of the following: simplistic or inaccurate word choice; monotonous or fragmented sentence structure; many repeated errors in grammar or usage.

A 1 paper suggests severe difficulties in reading and writing conventional English. It may disregard the topic's demands, or it may lack any appropriate pattern of structure or development. It may be inappropriately brief. It often has a pervasive pattern of errors in word choice, sentence structure, grammar and usage.

ONLINE PROGRAM MANAGEMENT (OPM): POSITIVE OR NEGATIVE? AN EXPERIENTIAL STUDY

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ABSTRACT

Compared to face-to-face learning in higher education, online learning has experienced a steady increase over the last 15 years (Friedman, 2018). The primary models' institutions are utilizing for online learning and programs are developed internally or provided by Online Program Management (OPM) companies or use a combination thereof (Wiley, 2020). In this context, a small liberal arts college in New York with approximately 3,000 made the decision to use an OPM company for its online delivery.

INTRODUCTION

Online Program Management (OPM) organizations provide services that include student recruitment, retention, marketing, professional development, and course development. Initially, OPM contracts were signed for seven to 10 years. This is a considerable length of time, especially if there are concerns or issues that emerge between the parties. For a college or university, early contract termination carries prohibitively high costs such as Wiley (from http://edservices.wiley.com/wp-Content/uploads/2017/05/OPM-and-Beyone-3-Requirements-for-Providers-Infographic.pdf) _notes a five percent decrease in the number of 10-year contracts between 2015 to 2016, with a seven percent increase in the number of colleges and universities signing contracts for less than five years.

The partnerships between the colleges/universities and OPMs are based on revenue-share arrangements worth one-half to three-quarters of tuition dollars (Kim, 2018). Some contracts signed provide the OPM up to 70 percent of the tuition amount. These are significant expenditures for institutions of higher education and provide substantial revenues for OPMs. As for-profit organizations, OPMs have become adept at these activities. Their success and continued growth are based on generating new contracts and renewing or extending current contracts. OPMs have become adept at negotiating and securing profitable contracts to provide activities related to student services, marketing and course development from colleges and universities.

Newton (2016) notes that OPM companies have participated in the higher education market for over 20 years. Many colleges and universities that entered the marketplace were not prepared to support the services required for success in online learning. Specific strategies were required for marketing, recruitment, enrollment, advisement, and retention of online students. There was an opportunity and profit potential for organizations that could provide these services. Hence, the formation of OPMs.

Online learning has witnessed a significant improvement in the quality, delivery, and rigor of online classes and programs. According to Friedman (2018), "public colleges and universities had the largest growth in online course enrolment between fall 2015 and 2016, at 7.3 percent…with roughly two-thirds of all online students enrolling in programs at public schools. Online class enrolment enrollment at private non-profit schools rose 7.1 percent with many online students living within 50 miles of their school's campus" (para. 4-8). Due to the Coronavirus, the OPM sector is thriving. According to Schwartz (2020), during the first six months of 2020, "schools across the globe struck 85 new contracts with OPMs—51 of which were in the U.S., …that's already more than two-thirds of the OPM deals made last year" (para. 15).

According to Zipper (2016), "schools have three options: do it themselves; cobble together various outsourced fee-for-service or software-as-a-service solutions from different vendors, such as Learning Management Systems (LMS) providers, marketing agencies, and instructional designers; or partner with an OPM provider" (para. 12). Colleges and universities have turned to partnerships with online program management companies (OPMs) such as Wiley's Learning House, Pearson, Helix, Bisk, and 2U. These vendors provide services in student recruitment, retention, marketing, professional development, and course development. The OPMs act in persona of the college, de facto acting as members of the college community. This paper provides experiences from the viewpoints of faculty, students, and staff working with an OPM. The college where the research took place, with approximately 3,000 graduate and undergraduate students in Buffalo, New York contracted in 2018 with an OPM to assist marketing, course development,

recruitment, retention, and advisement. This paper will address the interactions of faculty and staff who directly interfaced with the OPM during the initial contract year. The three main areas that impacted online learning and the OPM at the institution where the research took place are the students, the institution itself, and recently, the Coronavirus.

STUDENTS

The traditional 18-to 24-year old college student demographic group has experienced a dramatic decline over the last 10 years and this trend is expected to continue. Data shows that the number of individuals graduating from high school in the United States (U.S.) peaked during the 2010-11 academic year (Salinger, 2020). The 18-to-22-year-old sector, however, remains integral for success of colleges and universities. Full-time students who live on campus account for less than 15 percent of all undergraduates, according to the National Center for Education Statistics (Koumilova, 2019). Salinger (2016) reports that, "Despite the overwhelming evidence about the value of a postsecondary degree in today's job market, only 65 percent of new high school graduates enrol in college the following fall, a figure that has remained relatively constant in recent years" (p. 5). Freshmen enrolling in public four-year colleges typically attend institutions less than 100 miles from home. For those attending private colleges, the distance is approximately 250 miles (Salinger, 2016). According to the 2019 study conducted by Learning House, an OPM acquired by Wiley in 2018, "local schools have greater visibility among employers and others in the community, which is valuable to students... And more than three in five of the students (63 percent) said they had decided to study online because that fit best with their "current work/life responsibilities," not because online was their "preferred way to learn" (34 percent)."

Different regions of the U.S. have and will continue to experience demographic changes effecting colleges and universities. The Midwest state of Michigan is expected to have 86,000 fewer high school graduates by 2028. New Jersey expects a 15 percent decrease by 2028. California is expected to see a decrease of 17 percent by 2027-2028. Salinger (2016) notes that, "three states, Texas, Florida, and Georgia, provide nearly half of the graduates in the South, a share that is expected to grow slightly over the next decade" (p. 10). The number of students who do not complete a college degree in four to five years and who will return to complete a degree has increased. Many have families and work full time. The returning student has different needs for what they are looking to obtain from institutions of higher education.

Not only are the number of high school age individuals decreasing, but the racial identities and ethnic make-up of the students is changing as well. To be successful, colleges and universities will need to monitor long range birth rates to develop strategies for recruiting students from different regions and racial groups from across the U.S. Providing a means of accessing education with students who are located possibly hundreds or even thousands of miles from a brick and mortar campus opens recruitment opportunities globally. The largest growth is expected to occur in the Hispanic population. This is a trend that is expected to be experienced across the U.S. (Salinger, 2016). According to Grawe (2019), "the Department of Homeland Security reports that the number of people from Asia obtaining lawful permanent resident status is essentially the same as that from South and Central America" (para. 2). In areas with multiple institutions of higher education, this means significant competition for the same demographic pool. Offering flexible learning experiences is important for success.

According to Capranos and Dyers (2020), student's that are motivated to complete degrees and certificates are more likely to do so for reasons of career advancement or personal enrichment. Obtaining certificates are more likely to be for training or for specific interest in a particular topic. Students who have completed online degree programs are more likely to support the idea of lifelong learning and are apt to take online courses. Providing a means for accessing education for students who are hundreds or thousands of miles from a brick-and-mortar campus opens recruitment opportunities globally.

ONLINE PROGRAM MANAGEMENT (OPMS)

OPMs have evolved and the market has grown to offering services that generate revenues of more than $1.1 billion annually (Newton, 2016). The expectation is that the growth of this sector will continue in the future. Straumsheim (2015) reports that three-quarters of survey respondents stated their main priority in contracting with an OPM was to increase enrollments, followed by reaching new student markets. According to Newton (2016), students who study online are being recruited and a large percentage of their tuition dollars are being paid to companies that are profit-based. The higher education landscape continues to change based on student expectations and employer needs. Colleges and universities often look to OPMs to decrease the risk of investing and developing an online program themselves and not meeting the desired outcomes. Depending on the contract negotiated, these risks can be mitigated or eliminated.

Many OPMs (Pearson, Bisk, 2U, Learning House /Wiley) have been providing services to institutions of higher education for 20 years or more. These organizations hire creative professionals, brand strategists, market researchers, media buyers, SEO analysts, database marketers, data scientists, and student recruiters to work with the colleges and universities to develop and monitor online programs. OPMs have the "corporate" background and business acumen that higher education institutions may lack. Most OPMs note in their mission statements that they aspire to "support" their partners, that is, the colleges and universities they have contracted with (https://www.pearson.com/us/en/highereducation/products-services-institutions/online-program-management/for-institutions, https://www.bisk.com/, https://2u.com/, https://www.learninghouse.com/).

Based on market research carried out by the OPM, TV/radio, email, social media, Search Engine Optimization (SEO) are used for recruiting students to programs based on market research. The OPMs have the resources to conduct national and international research that enables specific options for a college or university. Because of their size and experience OPMs bring to the table a skillset the colleges and universities do not possess, have the financials to invest in the institution to develop programs, or may not want to be responsible for all of the risk. OPMs have evolved based on the progression of online learning and by having the ability to hire excellent analysts and course developers.

Financial contracts between the OPMs and educational institutions range from revenue sharing and fee-for-service to co-investment. It is estimated that fifty percent or more of tuition dollars are paid to OPMs for services provided. The term "shared success model" has been coined to describe tuition-sharing (Newton, 2016). When the collaboration works, incremental revenues are generated that an institution would not have been able to achieve save for the OPM. When the collaboration does not work, the institution may eliminate the program or bring the services back

to administer them internally (Zipper, 2016). The future for OPMs will include competency-based, hybrid, and stackable credentials (Straumsheim, 2015). The expectation of an institution aligning with an OPM is that a partnership is formed, and this partnership is mutually beneficial. Newton (2016) notes that, "up to 80 percent of the more than 2,600 colleges delivering online education, including schools such as Yale and the University of Southern California-outsource the management of the programs" (para. 4). With the continued growth of online learning, OPMs could be in line for significant growth.

The state of California, however, has recently proposed legislation that would provide the strongest for-profit accountability measures in the United States (McKenzie, 2019). According to McKenzie (2019):

> The proposed bill would explicitly prohibit any private for-profit postsecondary education provider that is registered with California's Bureau for Private Postsecondary Education from entering into tuition-sharing arrangements with OPMs or other academic service providers…The law could also apply to out-of-state distance education providers that enroll California residents. (para. 5)

The proposed bill does not ban OPMs but have a significant impact on their operations. Policymakers could also consider further restrictions on how the companies operate with other institutions in the state and across the U.S. if the legislation passes. Kowalewski (2019) notes that:

> In addition to questions about profiting from public education and student debt and the use of commission-based recruitment, another problem with the tuition-sharing model is that it works against a major premise of online education, making a college education more accessible and more affordable. (para. 31)

COURSE DEVELOPMENT (INSTRUCTOR AND OPM COURSE DESIGNER)

OPMs continue to evolve to provide services for lifelong learning by developing short courses, badges, and degrees. Developing software and programming for the future needs of online learning is expected to be led by OPMs, primarily due to their size, economies of scale, and experience.

Prior to contracting with an OPM in 2018, the faculty of the institution where the research took place developed their courses with the assistance of the Department of Online Learning (Instructional Designers). Feedback related to interactions with the OPM staff was solicited from the college's faculty and course designers. This model was changed when the contract was signed. The faculty assigned to develop a course was contacted by the OPM course designer to develop a timetable for the course from start to finish.

First, a course map, a spreadsheet listing course information, was developed. This included the module topics/chapters, department/college objectives, weekly course objectives, instructional materials (textbook, faculty video / PowerPoint lectures, journal readings, YouTube videos), how the objectives would be assessed (quizzes, papers, reflections, discussion boards, tests). Rubrics were also developed by the instructor in concert with the designer. A timeline, normally eight weeks, was then developed between the faculty member and OPM course designer. The instructor

then forwarded the course materials to the course designer to be uploaded into the college's course in the learning management system (Canvas). Subsequently, the instructor reviewed for accuracy and the course was ready to launch. In some institutions, schools, departments courses are reviewed by another individual or group to ensure the course meets accreditation guidelines (i.e.: Nursing, Business, Physical Therapy, Physician Assistant) or an outside online learning organization such as Quality Matters (https://www.qualitymatters.org).

Quality Matters (https://www.qualitymatters.org) is a national, non-profit organization, providing quality assurance guidelines and standards for online course development. Based on the guidelines and standards, QM reviews courses developed for online learning and assist the course developer, usually a faculty member, with suggestions for potential improvements. If the course meets the QM standards, a certification of quality is issued. With the growth of online learning, rigor and course quality continue to be significant objectives. A course is certified for three to five years. Based on the QM standards, many colleges and universities have developed rubrics and reviews tailored to meet their specific needs.

It is important that instructors update courses regularly to provide students with the most current theories, techniques, and ideas for their personal and professional development. According to Freeman (2015):

> Developing online courses is more time consuming than developing face-to-face courses, but the development of each subsequent online course is not as time consuming as the previous online course development. In addition, teaching online is more time consuming than teaching face-to-face, but this is only the case for the first time and perhaps the second time teaching the course. After the second time, teaching a course online or face-to-face is relatively the same in terms of time. In addition, the Technology learning curve is shorter than the Online Pedagogical learning curve. (para. 43)

Many institutions are developing guidelines for courses to be updated with specific timelines. For example, courses are completely revised every three years with minor changes made each semester. There are also major events that are impacting course development and updates such as the Coronavirus (Covid-19) pandemic, the institutions financial resources, faculty availably, and training in online teaching and course development.

IMPACT OF CORONAVIRUS

Institutions of higher education faced what may be the most significant issue in decades, Coronavirus. At the onset of 2020, there were institutions of higher education entering the new year (business as usual), coming face to face, by mid-March, with a challenge never encountered. According to Deloitte (2020), a major accounting and management consulting firm, the most urgent challenge for institutions of higher education is cash flow. As institutions lose parking fees, dining outlet sales, athletic events, facility rentals, and other auxiliary revenues. They also face unexpected expenses, including partial refunds on fees, room, and board, building maintenance and the need to scale virtual engagement modalities (Deloitte Website). To ensure continuity in the short term, some institutions will likely need to rapidly restructure their operations."

Considering the growing trend in online courses and programs, institutions of higher education need to evaluate what ought to be offered. Colleges and Universities were compelled to transition from face-to-face to online teaching literally overnight during spring 2020. The growing trend in online courses and programs should be evaluated as to which are the best candidates to be offered in the online format.

Further compounding the cash flow challenge is the uncertainty of the future impact of Covid-19 on future post-pandemic. As the pandemic continued through the spring of 2021, new and returning students were impacted. Questions regarding students living in dorms, classroom space, movement through hallways, interactions with student support services such as tutoring or counseling, health of staff and faculty required constant monitoring. There is a continued shift toward online classes and programs to maintain social distancing. The impact on international students related to obtaining visas for entering the U.S. are significant. Also, international students paying full tuition at state institutions may decide not to study in the U.S. This adds to the financial strain experienced since the onset of the pandemic. While colleges and universities are experiencing the adverse financial impact of the Coronavirus, OPMs are gaining revenues.

In addition to the changing student demographics, institutions of higher education will need long term strategies and support structures for continued success. The spring of 2020 found institutions moving face to face classes to an online format as an immediate reaction to Covid-19. Institutions now will need to evaluate and prioritize which courses and programs are the best candidates to be offered either online format or face-to-face. The authors of this paper expect that a number of face-to-face programs and courses will be eliminated as a consequence of the pandemic.

RESEARCH

The primary objective of this research was to evaluate student feedback related to experience in an online MBA program that contracts with an OPM for recruitment, advisement, and instruction. The liberal arts college contracted with an OPM in 2018 providing specific services related to recruitment, advisement, and course development. Soliciting and obtaining feedback on student satisfaction related to the services could be utilized to improve or support interactions between the college and OPM. Secondary research as to interactions with college faculty developing courses, and the Online Learning Department, and the OPM was conducted. The students were surveyed using SurveyMonkey. Approval from the Institutional Review Board was received prior to dissemination of the survey to students. Feedback related to course development was also solicited from faculty and instructional designers employed by the institution.

A short nine-question survey, specific to an online MBA program was developed by the researchers to gauge student satisfaction. The survey was emailed to 60 online MBA students with no identifying questions, maintaining respondent confidentiality. This was the total number of students enrolled in the online program in March 2019. Even though this is a small sample size, there are insights to be gained for institutions of higher education regarding services provided by OPMs. An expectation of the researchers was that the insights would lead to improving student satisfaction related to advisement and orientation. The survey included questions related to the initial response to student inquiries, advisement, orientation, completion of prerequisite courses

for students without an undergraduate business or business-related degree, course navigation, faculty response, and follow-up throughout the classes by advisors.

Feedback was solicited from faculty related to course development such as OPM staff response time, errors in uploading course materials, timeline issues, professionalism, online learning knowledge. Responses by faculty noted that eight weeks was usually sufficient to develop a course with the OPM course developer. However, "when" the course was scheduled to be developed was problematic. The semester course load for faculty is four classes, many faculty teach overloads of one or two additional classes. Overwhelmingly, 100 percent of faculty reported that developing a course during a semester teaching a full course load impacted their work hours negatively. Faculty reported an average of 10-20 hours per week spent developing and emailing material to the OPM designer.

Training of faculty was also addressed in the research. Did faculty believe the training offered was sufficient to develop and teach quality online courses? The college offers training internally and extended financial support to faculty when completing courses and certifications through organizations such as the Online Learning Consortium and Quality Matters. The best time to make decisions and policies regarding online learning is before offering classes to students. Instituting policies after launching an online program can be problematic. Some institutions require online faculty to complete training to teach online, others "suggest" or offer training but leave it to the faculty member as to enrollment. Based on the survey conducted by Cengage in April 2020 (https://embed.widencdn.net/pdf/plus/cengage/1yhakzkaya/higher-educations-response-to-covid19-infographic-1369680.pdf/), of 826 faculty and administrative respondents representing 641 institutions of higher education across the United States 97% of institutions reported using faculty with no prior online teaching experience for some of their courses. Quality, rigor, and student engagement are important not only in face to face classes, but also for online classes (Kent State, 2020).

RESULTS

The survey was emailed to the 60 students enrolled in the program at the time. 54 surveys were returned, 26 of these were deemed complete and usable for the study. The respondents were 62% female, 38% male. 23% of the respondents were between 18-24 years of age, 42% between 25-34 years of age, and 35% between 35-44 years of age. 100% of the students reported that they were employed full time. The data were analyzed, noting specific areas that could provide improvement in student learning and support; as well as recommendations to improve course development and support for faculty and online learning staff (Kowalewki, 2019).

Students reported on the survey that time management (63.64%) was their greatest challenge in responding to the question "What area(s) do you find challenging in the MBA program to date (note all that apply)". The second highest response to this question (40.91%) was "Writing Papers." Students reported no issues related to the recruitment process. The results of the student ranking as to problems with specific offices or support and if these problems were resolved satisfactorily are reported in Table 1. Students' ranked the learning management system (LMS) as the most significant area for improvement/additional training, followed by obtaining textbooks and materials, using online course supplemental materials, and registration (Kowalewski, 2019).

Table 1: Results of student satisfaction survey of problems/issues in specific areas (Kowalewski, 2019)

Have you had problems/issues in any of the following areas? (check all that apply)	
21.43%	Obtaining textbooks, online and course supplemental materials (i.e.: My Business course, products from publisher)
21.43%	Using online and course supplemental materials (i.e.: My Business Course, products from publisher)
21.43%	Registration/Registering for classes
14.29%	Advisement
0%	Recruitment
35.71%	Canvas

To the question, "How satisfied are you with the response time if you had questions/encountered problems," students noted that their highest satisfaction related to response time by faculty. The second most reported was technology support offered to students by the college's Learning Department and the LMS (Table 2). This was an important question because one of the faculty guidelines is to respond to students within 24 hours. In case of a holiday the response time was 48 hours. The responses obtained verified that this issue was paramount. As with all colleges and universities, retention is important for financial success, the impact on rankings and reputation (Strikwerda, 2019). The impact of faculty is pivotal according to Strikwerda (2019):

> It is instructors who control their fate. Colleges and universities can often do more, at less cost, to help at-risk students by concentrating on how to reach them most effectively in their academic work than by other means, as important as they may be. Departmental culture, therefore, is also crucial to students graduating. (para. 10)

Table 2: Results of how satisfied students are with response time to questions/problems (Kowalewski, 2020)

How satisfied are you with the response time if you had questions/encountered problems					
	1 Not Satisfied	**2 Somewhat Satisfied**	**3 Satisfied**	**4 Highly Satisfied**	**N/A**
Faculty	7.69%	7.69%	30.77%	58.85%	0%
Advisor	3.85%	11.54%	38.46%	42.31%	3.85%
Technology Support	0%	3.85%	42.31%	46.15%	7.69%
Registration	3.85%	11.54%	46.15%	38.46%	0%
Recruitment	3.85%	0%	30.77%	23.08%	42.31%

The college has an orientation for online students prior to beginning the MBA program. The orientation includes topics such as advisement, registration, academic integrity, time management, financial aid, and Canvas tutorials. The program accepts students through the first week of a class, which can be problematic for students who are feeling rushed and experience stress early in their program. The researchers questioned if students were being compliant in completing the orientation. Eighty percent of the students reported that they completed the online orientation prior to beginning the program. A point to be addressed is how to increase the orientation completion to 100 percent. It is imperative that students complete the orientation to enter the program with an understanding of expectations and guidelines.

Initial feedback from faculty and staff was not favorable. As with a new association, there were growing pains. Faculty were concerned about academic freedom, copyright of course materials, time required for development, compensation for course development, and who was going to teach these courses. The faculty are represented by the American Association of University Professors. Members of the union met with college administrators and resolved issues regarding copyright of course materials, compensation, and course teaching assignment. Initial formatting concerns included common templates used for all classes for continuity and branding, communication between multiple stakeholders (faculty member developing the course, the OPM course developer, the Online Learning Department). Turnaround time for internal course review by the Department of Online Learning was delayed due to plethora of courses developed in a relatively short time. To expedite final course reviews, individual departments are now responsible for quality assurance.

Advisement continues to be of great concern for the Business Department. Initially, the online MBA program was designed as an accelerated, five-week program, mirroring the in-class MBA program previously implemented with considerable success. Students were taking one class at a time, completing three classes in a 15-week semester. The in-class MBA program was cohort based, with starting dates in August for the Fall semester, and in January for the Spring. The students followed a predetermined schema and took classes is sequence, ensuring that members of

the cohort advanced together from class to class.

At the suggestion of the OPM, the online program delivery mode was changed to eight-week classes, with students enrolling in two classes in each semester, and the option to add a third eight-week class at the beginning in week four. According to the OPM, this change was necessary as prospective students expressed their preference for studying part-time. Subsequent communication between faculty and students indicated the contrary. Students reported wanting full-time enrollment but found taking three courses per semester, with two courses overlapping in the middle, difficult to manage.

Online students are now admitted and begin classes throughout the year. Students enroll in classes that are offered at the time. For the Business Department, this presents a challenge. As not all twelve MBA courses are offered in every semester due to resource constraints, course scheduling becomes a monumental task. Moreover, as not all courses are offered in every semester, students have difficulty in determining the time frame of their program completion. Also, as students enter the program, the information and guidance imparted to them is inconsistent. In the original format of the MBA with a structured, cohort-based environment students received a thorough program orientation with expectations and responsibilities clearly outlined. As reported by students, this is now not the case.

Who, what and when students were being advised and contacted related to academic issues such as grading, probation, and other academic concerns were voiced by advisors and retention personnel. Although communication occurs between the college's Dean of Online Learning and the OPM staff, occasionally with the Business Department Chair, the Business Department overall, where curriculum is "housed" is left out of the decision-making processes.

The experiences and interactions between the Institution and the OPM are two years into the relationship. This is too early to determine the success related to increased enrolment enrollment and student satisfaction, or to student retention. Additional student surveys will be conducted to monitor and effect changes if and when necessary.

RECOMMENDATIONS

Although the number of surveys emailed included all of the MBA students in the online program at that moment in time, the sample size was small. A recommendation is to survey students continuously since the program has increased in size. The research and feedback to date support the importance of communication, clarification, and transparency as to interactions with the OPM.

When working with an OPM it is recommended to have a complete understanding of the contract between the OPM and the Institution. The institution invited all stakeholders in the decision-making process including front-line staff, middle management, faculty, Department of Online Learning. LMS administrators, information technology (ERP administrators), financial personal, advisors, marketing, admissions, retention services, student accounts, and financial aid. Contact with the other institutions employing or relying on OPMs is imperative to the process to determine best practices and how to implement them.

As with many new business relationships, there is a period of adjustment. Any college or university considering entering into a commitment with an OPM needs to perform due diligence. It is much more difficult to make changes, and develop and implement policies once the contract

is signed. The college or university should have conversations with other institutions of higher education regarding their experiences with OPMs. Faculty speaking with faculty regarding course development would be useful. An institution of higher education having a complete understanding of the OPM's contracts and responsibilities is integral for success.

The next step would be for the college or university to document processes and responsibilities, to ensure a smooth transition. The inclusion of as many groups of stakeholders as possible will make the transition to the OPM administered programs and functions smoother. Continued involvement from the faculty and the institution's Online Learning Department is imperative for success. It is important to consider students, faculty, support services such as financial aid, library, tutoring, and advisement.

Before initiating the cooperation a contractual relationship with an OPM, it is imperative that there is a complete understanding of the processes; with the areas of responsibilities clearly defined, and the timing of deliverables, such as determining if a best practice template will be used, implementation of Quality Matters and/or Online Learning Consortium practices, adherence to Americans with Disabilities Act compliance (American's with Disabilities Act of 1990), copyright, union contracts or academic year requirements. The inclusion of faculty in the crafting of these policies in is pivotal (Kowalewski, 2019).

CONCLUSION

A primary objective of this study was to determine satisfaction of MBA students following the college entering into a contract with an OPM. Based on SurveyMonkey data collection, tabulation, and evaluation of the student survey, the researchers determined that students did not experience any difference between the college personnel versus the OPM personnel in their interactions with recruitment or advisement personnel. Students reported not to be impacted positively or negatively when an OPM is involved. This was a positive aspect of the research since these services are deemed by faculty to be integral to the success of the MBA program. The college prides itself in its relationship and support of students, students receiving responsive, quality service. Data supported that the students are receiving quality support related to advisement and recruitment.

The results from the MBA student survey, in combination with feedback from faculty and staff, provided ideas and initiatives to immediately improve communication with the OPM. Areas such as ensuring that students complete the orientation prior to beginning the program need to be prioritized to improve student satisfaction. Frequent communication between OPMs and/or the institution need to be responsive to the student, and assessment by the institution should be continual. Communication and planning are integral in all stages of partnering with an OPM. Conversations with stakeholders prior to submitting a Request for Proposal (RFP) will make the process more productive and effective (Kowalewski, 2019). Institutions need to understand the commitment they are making to an OPM and the impact this will have on all stakeholders. Due diligence prior to the signing of an OPM contract will eliminate many potential issues in the future.

Including stakeholders who are developing and supporting the online courses is critical. Reviewing the financial aspects, as well as having legal counsel fully review the contract will decrease issues that may emerge during the course of the contract. Faculty and staff associated with online learning need to embrace change and be flexible. Having clear expectations is integral.

Signing a contract with an OPM does not guarantee success in itself; either financially, in regard to reputation, or with respect to increased student enrollment.

Covid-19 forced campuses to shift to online learning in a matter of weeks (or less) in the middle of the spring 2020 semester. Overall, institutions of higher education were ill prepared to transition all or the majority of face-to-face classes to an online format. Institutions looked to internal Online Learning Departments, faculty experts, or OPMs to facilitate the transition. transition. According to Poulin, Executive Director of the Western Interstate Commission for Higher Education (Cision, 2021).

Many institutions choose not to partner with an OPM deciding to use or hire internal talent or outside hires to administer and grow online programs. Hiring quality, responsive faculty to develop and teach online should be a goal of every college and university if they are committed to deliver online education. It is also important for higher education institutions to understand that investing in training the internal online learning support staff and faculty in new online technologies and learning methodologies is essential. With the updates in learning management systems, software, and online textbook materials, this training is not a one-time occurrence, it needs to be continual.

It is important to consider the impact that contracting with an OPM will have on the strategic planning and mission of the college or university. Sharing responsibility with an OPM can provide the staff and technology support an institution may not possess internally, resulting in growth and financial gain. This could, however, come at a cost of autonomy. It is important, therefore, to look at the return on the investment, the cost of implementation, and the overall effects on the organization (Kowalewski, 2019).

REFERENCES

Capranos, D. & Dyers, L. (2020). *Online Student Behaviors and Attitudes: A Survey of Prospective Students, Current Learners, and Recent Graduates of Wiley Education Services' Partners*. Orlando, FL: Wiley Edu, LLC. https://edservices.wiley.com/online-student-behaviors-and-attitudes-report/

Cision PR Newswire, (2021, March 24). *Survey: About Half of Faculty are More Positive about Online Learning Today Than Pre-Pandemic, And Expect to Keep Teaching Techniques and Digital Materials in Place Post-Pandemic*. Retrieved April 5, 2021, from https://www.prnewswire.com/news-releases/survey-about-half-of-faculty-are-more positive-about-online-learning-today-than-pre-pandemic-and-expect-to-keep-new-teaching-techniques-and-digital-materials-in-place-post-pandemic-301254718.html

Craig, R. (2015, June 25). A brief history (and future) of online degrees. *Forbes*. https://www.forbes.com/sites/ryancraig/2015/06/23/a-brief-history-and-future-of-online-degrees/#6a644b4648d9

Deloitte. *Covid-19 impact on higher education,* Retrieved January 30, 2021, from, https://www2.deloitte.com/u/en/pages/public-sector/articles/covid-19-impact-on-higher-education.html#

Freeman, L. A. (2015). Instructor time requirements to develop and teach online courses. *Online Journal of Distance Learning Administration*, *18*(1). https://www.westga.edu/~distance/ojdla/spring181/freeman181.html

Friedman, J. (January 18, 2018). 4 Expectations for online education in 2018, *U.S. News & World Report.* https://www.usnews.com/higher-education/onlineeducation/articles/2018-01-18/4-expectations-for-online-education-in-2018

Friedman, J. (January 11, 2018). Study: More Students are Enrolling in Online Courses. *U.S. News & World Report*. http://people.uis.edu/rschr1/onlinelearning/?p=39379

Grawe, N. D. (February 18, 2019). How demographic change is transforming the higher ed landscape. *Higher Ed Jobs.* https://www.higheredjobs.com/blog/postDisplay.cfm?blog=25&post=1843

Kent State Online. (2020, August 5). https://onlineteaching.kent.edu/library/strategy/online_rigor

Kim, J (2018). 5 Misconceptions about online program management providers, *Inside Higher Ed*. https://www.insidehighered.com/digital-learning/blogs/technology-and-learning/5-misconceptions-about-online-program-management

Koumpilova, M. (2019, October 31). *Colleges Struggle to Adapt to Changing Demographics. Educational Writers Association*. https://www.ewa.org/blog-higher-ed-beat/colleges-struggle-adapt-changing-demographics

Kowalewski, S. (2019, November 3-7). *The Impact of Online Program Management (OPM) on the Growth of Online Learning: A Case Study* [Conference Session]. World Conference on Online Learning, Dublin, Ireland. https://wcol2019.ie/content/uploads/presentations/FP_029,%20KOWALEWSKI.pdf

Lederman, D. (December 11,2019). Online enrollments grow, but pace slows, *Inside Higher Ed.* Retrieved July 16, 2020, from https://www.insidehighered.co/digital-Learning/article/2019/12/11/more-studend-study-online-rate-growth-slowed-2018

Lederman, D. (June 5, 2019) *Online is (Increasingly) Local*, Retrieved March 20, 2021, from https:www.insidehighered.com/digital-learning/article/2019/06/05/annual-survey-shows-online-college-students-increasingly

McKenzie, L. (May 9, 2019). California mull crackdown on online partnerships. *Inside Higher Ed*. Retrieved September 20, 2020, from https://www.com/digital-Learning/article/2019/05/09/calif-lawmakers-consider-legislation-aimed-profits-anOnline?utm_source=Inside+Higher+Ed&utm_campaign=537ba42d2a-DNU_2019COPY_01&utm_medium=email&utm_term=0_1febc04421-537ba42da198469301&mc_ci=537ba42d2a&mc_eid=96ef6aaa

Newton, D. (June 7, 2016). How companies profit off education at nonprofit schools. *The Atlantic.* Retrieved May 8, 2019, from https://www.theatlantic.com/education/archive/2016/06/for-profit-companies-nonprofit-colleges/485930/

Pearson. (2020, August 2). https://www.pearson.com/us/en/higher-education/products-services-institutions/online-program-management/for-institutions

Schwartz, N. (2020, October 20). *Colleges Look to OPMs as Pandemic Intensifies Shift Online. Education Dive.* Retrieved April 4, 2021, from http://dyc.idm.oclc.org/login?urlhttps://www-proquest-com.dyc.idm.oclc.org/trade-journals/colleges-look-opms-as-pandemic-intensifies-shift/docview/2454513815/se-2?accountid=38507

Skopec, C. (July 15, 2019). *Student Demographics are Changing: Here's What Colleges Need to Know About It*. Retrieved July 29, 2020, from https://collegiseducation.com/news/programs-and-course-content/student-demographics-are-changing-heres-what-colleges-need-to-know-about-it/

Selingo, J. J. (2016). 2026: The decade ahead: The seismic shifts transforming the future of higher education. *The Chronicle of Higher Education.* Washington, DC. APA

Straumsheim, C. (September 11, 2015). Online program management providers, now a dollar industry, look ahead, *Inside Higher Ed,* Retrieved August 1, 2020, from https://www.insidehighered.com/news/2015/09/11/online-program-management-providers-now-billion-dollar-industry-look-ahead

Strikwerda, C.J. (September 4, 2019). Faculty members are the key to solving the retention challenge. *Inside Higher Ed*, Retrieved August 8, 2020, from https://www.insidehighered.com/views/2019/09/04/faculty-must-play-bigger-role-student-retention-and-success-opinion

Wiley Website. (2020, August 3). http://edservices.wiley.com/wp-content/uploads/2017/05/OPM-and-Beyone-3-Requirements-for-Providers-Infographic.pdf

Zipper, T. (June 23, 2016). *The Value of the Online Program Management Industry*. Retrieved June 15, 2020, from http://www.uncompromisingedu.com/2016/06/23/the-value-of-the-online-Program-management-industry

BUILDING A BETTER MANAGEMENT CLASS, ARTICLE II: AN ANALYSIS OF STUDENTS' PERCEPTIONS OF FACULTY'S ORGANIZATION, STYLE, AND EXPECTATIONS

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ABSTRACT

The current work analyzes how students' perceptions of the faculty member's *Organized, Flexible Teaching* style and *Communication of Expectations* can be influenced by factors outside of the faculty member's control (i.e., length of class period, method of delivery [F2F versus online], and semester a course is taught The findings suggest a need for faculty members to place more importance on thoughtful assessment of the structural components of a course and for administration to allow faculty to have more input on the *design* of class rotations and offerings with a greater degree of caution when interpreting student ratings of faculty teaching.

INTRODUCTION

Assessment of a faculty member's teaching has become one of the most important *routines* a faculty member must engage in on a continuous basis. Accrediting bodies like AACSB International for business colleges are placing an ever-increasing importance on assessment initiatives in order to maintain their high standards (*About AACSB*, 2021). This increased pressure on assessment has resulted in faculty members serving in a new role, assessor, as faculty members must now conduct frequent, continuous, analytical, critical, and thoughtful assessments of the *value* of the classes being taught. Specifically, faculty members must find ways to measure the success of their class in a way that allows them to *defend* the value of a class to administration and accrediting bodies alike. The current trend for such an analysis or assessment of a successful classroom requires the use of student-rating instruments.

The current work seeks to understand how key factors of a course that are outside of the faculty member's control (i.e., Class Format) are able to influence student ratings of the faculty member and the course being taught. Specifically, the current work analyzes how students' perceptions of the faculty member's *Organized, Flexible Teaching* style and *Communication of Expectations* can be influenced by factors outside of the faculty member's control (i.e., length of class period, method of delivery in terms of on-campus versus online versus distance learning, and semester a course is taught) thus drawing caution to the interpretation and administrative action against a faculty member based on these measures. The current work will focus its analysis on students in several required and optional management classes within an accredited AACSB institution. The findings suggest a need for faculty members to place more importance on thoughtful assessment of the structural components of a course. This work also calls for administration to allow faculty to have more input on the *design* of class rotations and offerings along with a greater degree of caution when interpreting student ratings of faculty teaching.

PERTINENT LITERATURE

Organized, Flexible Teaching

The current work was conceptualized as a way to ascertain the impact that class format (i.e., length of classes, number of meetings per week, method of delivery) has on two distinct measures embedded within student rating instruments: Organized, Flexible Teaching and Communication of Expectations.

Research indicates a need for a faculty member's teaching style to be adaptive to the needs of the students. Rischin (2002) noted that different learning styles require different methods for reaching said learners in order to be an effective teacher. Dowling, Godfrey, and Gyles (2003) found that accounting students performed better when learning under a more flexible teaching approach, in comparison to a more traditional approach (i.e., face-to-face with lecture). Furthermore, Lang, McKee, and Conner (1993) detailed several important characteristics of effective teaching including being organized and flexible.

Palmer (2001) discusses the complexity of developing such a program to fit the needs of students as no one-size-fits-all technique exists. Goode et al. (2007) go in-depth on this issue by explaining the difficulties and benefits of having a more flexible teaching style within the

information systems discipline. Murray et al. (1990) found that the success of an adaptive teaching style is determined, in part, by the personality characteristics of the instructor.

One of the key challenges for a faculty member when trying to be adaptive is to be able to do so seamlessly without allowing the students to noticeably observe the *transitions* that may cause disruptions. Developing an adaptive learning environment would be akin to having multiple styles of flooring in a building without careful planning and execution to make sure the floor types and styles would *fit together* in a manner that looks good and makes sense. More to the point, Telford (1995) states that flexible learning is like, "another cover-all term [similar to open learning], inclusive of all forms of learning which, though institution-based, do not follow a laid-down pattern but are adaptable (in terms of time, place, method, etc.) to individuals or particular groups" (p. 165). Furthermore, Thomas (1995) states:

> flexible learning is not about producing variously deliverable learning packages or pick 'n'-mix courses to an otherwise undifferentiated mass market. It is about being prepared to configure all available resources, expertise and learning opportunities in the way that fits the learning purpose best (p. 2).

In the context of the current work, this research shows that organized, flexible teaching styles are an important component to student learning and experts even suggested (i.e. Thomas, 1995) that structural components of the course may be a factor in developing effective, flexible teaching styles.

> ***Research Question 1****: Will class format have a significant influence on students' perceptions of the faculty member's Organized, Flexible Teaching style?*

Communication of Expectations

The ability to communicate expectations is prevalent in all industries, not just academia. Yedidia et al. (2003) found that effective communication of medical students (i.e., during their training) was crucial in their eventual performance as doctors. Specifically, better training in communication lead to greater proficiency at communicating effectively with patients (i.e. based on the doctor-patient relationship this communication likely centers around communicating expectations of treatment). Duffy et al. (2004) notes the need to develop appropriate assessment tools for measuring such communication of expectations. Furthermore, Lang et al. (1993) detailed several important characteristics of effective teaching for deaf students that included being effective at communicating expectations. In fact, communication of expectations was one of the top concerns from administrators and students.

Hewson et al. (2001) illustrates that a faculty member's ability to clarify and specify expectations can be improved and is important. The current work seeks to determine whether these important traits can be improved by the structural elements of the class. For example, Friedman (1978) found that for questions assessing the affective state of an observed (i.e., picture on paper) person, "nonverbal cues had a greater impact on perceptions that did the words" (p. 148). Nonverbal cues are common characteristics that faculty members are not being trained on and, thus, are typically outside of the faculty member's control in relation to how the student will perceive them, much akin to Class Format. Liao (2013) found that the psychological contract (an

often unexpressed and unshared belief system between parties) was able to influence student's perceptions of faculty members. Furthermore, Jussim et al. (1996) discuss findings of how an instructor's preconceived notions/expectations can influence the subsequent performance of a student. The corollary is likely also true. The expectation that some students need more clearly defined expectations for coursework (i.e. entry-level classes) than others (i.e. upper-division elective courses) and, therefore, an amendment to how the faculty member structures the information provided in-class and in assignment documents.

In summary, a vast research stream focuses on many areas that may impact a student's perception of whether expectations of coursework are clearly and effectively communicated. The current work seeks to either add or subtract from this list by analyzing whether the structure of the class also plays a role in these perceptions.

> ***Research Question 2***: *Will the format of the class have a significant influence on the student's perceptions of the faculty member's Communication of Expectations?*

METHODOLOGY

Sample

Upper-division, undergraduate business students located in a medium-sized university located in the mid-south of the United States were used in the current study. Six hundred forty-one students were included in the analysis of student ratings of the faculty member's organized/flexible teaching style and communication of expectations. This sample represents all student ratings submitted over a 6-year period (AY 2011 through AY 2017). The sample represents approximately 44.8% of all of the students in these classes as student ratings are not a "requirement" at the university. Class sizes included in the analysis ranged from 15 to 47. The only classes taught with fewer than 15 students were taught in summer sessions and student rating instruments are not (currently) distributed during summer sessions. This exclusion of classes with fewer than 15 students does increase statistical confidence in the findings as research suggests that reliability coefficient surpasses the .70 threshold for Cronbach's Alpha for classes with 15 or more students (e.g. Cashin 1995; Gillmore et al. 1978). As such, inclusion of classes with fewer than 15 students would require caution when interpreting the findings.

Instrumentation

The college's student rating instrument (i.e. an instrument students use to rate faculty on teaching effectiveness) was developed in the early 1990s as a tool for faculty to increase their confidence (i.e. reliably and validly) measuring student perceptions of the instructor and course. The overall instrument has 5 dimensions (Interest in Students, Organized and Flexible Teaching, Communication of Expectations, Course Characteristics, and Global Course Characteristics) comprised of 35 items plus an additional 5 questions pertaining to demographic information. The current study is focusing on two of these dimensions: Organized, Flexible Teaching and Communication of Expectations. Organized, Flexible Teaching comprises 7 items, and the Cronbach's alpha for the current study was .958, which is consistent with initial reliability measures on the scale. Items on the survey include "Is not accessible for consultation outside of class," "Does not encourage class discussion," "Requires written work on assignments or exams,"

"Does not require work in course preparation outside of class," "Relies on lecture as only teaching technique," "Lectures in an unorganized manner," and "Does not give adequate notice of exams." Communication of Expectations comprises 5 items, and the Cronbach's alpha for the current study was .943, which is also consistent with initial reliability measures on the scale. Items include "Relates the material to real-life situations," "Communicates expectations of student performance," "Explains consequences of work not completed on time," "Does not require work in course preparation outside of class," and "Uses materials in addition to text." With all of the survey items in place, the focus of this research, measuring how the format of the class could affect students' perceptions, was defined and is discussed in the analysis section.

Analysis

The focus of the current research, during conceptualization, was to measure how the format of a class may influence important metrics of classroom success as measured by the student's perceptions of whether the class is taught in an organized and flexible manner (i.e. Organized, Flexible Teaching) and whether students felt the faculty member's expectations of student performance in the class were clearly communicated (i.e., Communication of Expectations). Specifically, could a structural component of a class (often outside of the control of the faculty member) be able to impact whether students perceived the class as being organized & flexible along with providing clarity when in relation to communicating expectations? However, the availability of pertinent variables (i.e., 5 identifiers discussed in the next section) were also included based on their inclusion in the literature (see Downie, 1952; Evans, 1969; Gage, 1961; Marsh, 1978) as being evidenced to have an impact on student ratings. In order to more accurately understand the "weight" of all of these important variables, the current work utilized stepwise regression analysis.

Variables

Based on the nature of the data collection and data entry process (i.e. the desire to keep student ratings anonymous) additional demographics (such as Sex, Race, etc.) were unable to be included in the analysis.

The main focus of the current analysis in was to ascertain to what extent Class Format influenced student's perceptions on the *success* of the class as measured by the student rating instrument. Of particular importance, is a structural element that is often outside of the faculty member's control (i.e., Class Format) able to influence two *key* measures of a successful class based on the perception of the student rater. Specifically, can Class Format influence student's perceptions of Organized, Flexible Teaching and Communication of Expectations? Class Format was coded on a nominal scale: 1 = 50-minute class periods, 2 = 75-minute class periods, 3 = Summer courses, 4 = Online, 5 = Distance Learning). Each format requires a different approach to teaching that may influence student perceptions of how well the faculty member communicates with the students and the organized/flexible nature of the class. For example, 50-minute class periods that meet more frequently allow for more discussion of *administrative* issues at the beginning of the class thus allowing students to feel as if their concerns have been addressed (i.e., Communication of Expectations). Furthermore, feedback would be easier to provide during a class that meets more frequently and see the benefits of its implementation (i.e. Organized, Flexible Teaching). Courses that meet longer (i.e., Distance learning courses that meet once per week), meet during a non-traditional 5-week semester (i.e., Summer courses), and online courses may not

allow for the *amendment* of the class in order to garner increased scores on the Organized, Flexible Teaching scale. Online classes, especially in rural areas, limit the ability to have high-quality face-to-face interaction with students. Connectivity issues with distance learning classes greatly limits communication of expectations to students especially since students will often "talk over" each other when asking questions. Such issues can lead to an increase in frustration levels on the part of the student who may decide to just "ask later" and/or not ask at all. Despite these concerns, research has found no appreciable difference in ratings of distance learning compared to on-campus amongst special education courses (i.e., Spooner et al., 1999). As such, the current work seeks to further understand the linkage between on-campus versus distance learning in the setting of Management classes, as differences are possible as each discipline present its own idiosyncrasies.

Additional information collected in the student rating instrument was included in the analysis as, in part, an exploratory analysis to assess influence on student ratings of Organized, Flexible Teaching and Communication of Expectations. Step 2 included Classification (Freshman = 1, Sophomore = 2, Junior = 3, and Senior = 4). Step 3 included Required versus Elective. This was included based on findings (see Downie, 1952; Evans, 1969; Gage, 1961; Marsh, 1978) that students rate classes higher based on whether or not they are required to take them. Step 4 included expected grade. The logic is that students that think they will perform well reward the faculty member with a higher rating or simply are in a more positive mood state (i.e. happier) with the class thus rating it higher. Step 5 added current GPA (i.e GPA before the course began). Expected Grade and Current GPA were included based on findings of a meta-analysis (see Cohen, 1981) that student ratings and student achievement are highly correlated (i.e., .43 – .47). Finally, Step 6 included full-time (12 hours or more per semester) versus part-time (less than 12 hours per semester) students to assess any potential impact that the course workload may impact student ratings of the class. In other words, students with heavier course workloads may be overburdened with work and have lower ratings of the course not because of any fault of the faculty member but because of the students' choices (yet another variable that would be outside of the faculty member's control).

RESULTS

Organized, Flexible Teaching

Research question 1 sought to investigate the nature that Class Format had on a faculty member's ability to demonstrate an organized yet flexible teaching style (as measured by student's perceptions). Analysis also included several other important variables (based on significance in literature) in order to more accurately understand the impact of all of these variables on student ratings of classroom performance. Initial analysis conducted focused on the aggregate data (all management classes together) and then followed up by examining the disaggregate data (each individual class). The results are reported in the disaggregate as they produced some meaningful differences in findings across classes that may inform Management (and other discipline) educators.

MGT 300

Table 1 provides the Means, Standard Deviations, and Pearson Correlation Coefficients for all variables included in the steps. Table 2 provides the Beta coefficients, t values, correlation coefficient, r squared, r squared change for each step, F change for each step, and degrees of freedom.

Class Format was not significant in Step 1 but was significant in Step 2 and Step 3. Steps 2 through 5 were significant. The addition of Classification in Step 2 was the most significant variable according to r squared change as it added 44.8% (p <.001) explanatory power to the model. The addition of whether or not the course was Required versus an Elective also was statistically significant as it added 5.6% (p <.001) of explanatory power to Step 3. Expected grade added 15.9% (p <.001) in explanatory power to Step 4. Current Overall GPA added 3.6% (p <.001) in explanatory power to Step 5.

Directionality of some of these findings proved to be interesting. Students ratings of the faculty member's Organized, Flexible teaching style was higher the lower the classification (i.e., newer to college, i.e., taken fewer hours). Specifically, students taking the class as a second semester sophomore had a significantly higher rating than students taking it at any point after. Similarly, students taking the class as a required class rated the faculty member's Organized, Flexible teaching style higher than students taking the class as an elective. A third interesting finding is that the lower the expected grade for a student, the higher the perception of the faculty member's Organized, Flexible teaching style. Finally, the lower the student's current GPA, the higher the rating on Organized, Flexible teaching.

MGT 303

Table 3 provides the Means, Standard Deviations, and Pearson Correlation Coefficients for all variables included in the steps. Table 4 provides the Beta coefficients, t values, correlation coefficient, r squared, r squared change for each step, F change for each step, and degrees of freedom.

Class Format was not significant in Step 1 but was significant in Step 2 and Step 3. Steps 2 through 5 were significant. The addition of Classification in Step 2 was the most significant variable according to r squared change as it added 22.8% (p <.001) explanatory power to the model. The addition of whether or not the course was Required versus an Elective also was statistically significant as it added 14.7% (p <.001) of explanatory power to Step 3. Expected grade added 21.8% (p <.001) in explanatory power to Step 4. Current Overall GPA added 3.1% (p <.05) in explanatory power to Step 5.

Students taking the MGT 303 class exhibited the same directional findings as reported for MGT 300.

MGT 340

Table 5 provides the Means, Standard Deviations, and Pearson Correlation Coefficients for all variables included in the steps. Table 6 provides the Beta coefficients, t values, correlation coefficient, r squared, r squared change for each step, F change for each step, and degrees of freedom.

Class Format was not significant in in any Step of the model. The addition of Classification in Step 2 added 17.2% (p <.001) explanatory power to the model. The addition of whether or not the course was Required versus an Elective also was statistically significant as it added 11.1% (p

<.001) of explanatory power to Step 3. Expected grade was the most significant variable in the model as it added 39.6% (p <.001) in explanatory power to Step 4. Current Overall GPA added 10.9% (p <.001) in explanatory power to Step 5.

Directionality findings were the same for MGT 340 as MGT 300 and 303. Interestingly, is that the variables that are more important switched. Specifically, the most significant variable is now expected grade and one's current overall GPA is significantly higher (10.9%) in comparison to the other classes. Despite the fact that the same directionality is observed, staunchly different preferences in importance of predicting student ratings were measured.

MGT 350

Table 7 provides the Means, Standard Deviations, and Pearson Correlation Coefficients for all variables included in the steps. Table 8 provides the Beta coefficients, t values, correlation coefficient, r squared, r squared change for each step, F change for each step, and degrees of freedom.

Class Format was not significant in Step 1 but was significant in Step 2 and Step 3. Steps 2 through 5 were significant. The addition of Classification in Step 2 added 32.9% (p <.001) explanatory power to the model. The addition of whether the course was *required* versus an *elective* was statistically the most significant variable as it added 46.2% (p <.001) of explanatory power to Step 3. Expected grade added 6.5% (p <.001) in explanatory power to Step 4. Current Overall GPA added 2.4% (p <.01) in explanatory power to Step 5.

The same directional findings were also observed in MGT 350. Interestingly, the most significant variable was whether the course was required or an elective. What makes this finding interesting is that demographically (and anecdotally as there is no demographic data available), students that take MGT 350 typically do not differ much from those that take MGT 303 or MGT 340, but it is clear that there are clear differences in *weight* attributed to what matters most in predicting student ratings of Organized, Flexible teaching.

MGT 491

Table 9 provides the Means, Standard Deviations, and Pearson Correlation Coefficients for all variables included in the steps. Table 10 provides the Beta coefficients, t values, correlation coefficient, r squared, r squared change for each step, F change for each step, and degrees of freedom.

Class Format was not significant in any Step of the model. Steps 2, 4, and 5 were significant. The addition of Classification in Step 2 added 25.7% (p <.01) explanatory power to the model. Expected grade added 50.1% (p <.001) in explanatory power to Step 4. Current Overall GPA added 3.5% (p <.05) in explanatory power to Step 5.

While the same directional findings from the prior 4 courses were observed, we see a difference in predictability for the model. MGT 491 students, typically in their last semester, are motivated (i.e. their student ratings are determined by), primarily by what grade they expect in the class (perhaps because many are focused on graduating and/or graduate school) and classification. It may be that students that enter this course earlier in their program are more likely to provide higher ratings because they see it as *progressing* through the program more effectively than those that have to take it at the end of their degree program. It could also be that those students rating it lower (having to take it in their last semester) were *surprised* to find out they didn't meet graduation requirements and had to take an extra class. The negative connotation attached to the

extra class may be transposed onto the class. While the current work didn't attempt to measure the why, these findings provide some interesting *focus* for future research in order to understand why students rate classes and faculty the way they do.

Communication of Expectations

Research question 2 sought to investigate the nature that Class Format had on a faculty member's ability to convey clear and effective Communication of Expectations for students to succeed in the course (as measured by student's perceptions).

MGT 300

Table 11 provides the Means, Standard Deviations, and Pearson Correlation Coefficients for all variables included in the steps. Table 12 provides the Beta coefficients, t values, correlation coefficient, r squared, r squared change for each step, F change for each step, and degrees of freedom.

Class Format was not significant in Step 1 but was significant in Step 2 and Step 3. Steps 2 through 6 were significant. The addition of Classification in Step 2 was the most significant variable according to r squared change as it added 40.7% (p <.001) explanatory power to the model. The addition of whether or not the course was Required versus an Elective also was statistically significant as it added 5.1% (p <.001) of explanatory power to Step 3. Expected grade added 17.7% (p <.001) in explanatory power to Step 4. Current Overall GPA added 5.1% (p <.001) in explanatory power to Step 5. Finally, Workload added 0.3% (p <. 10) of explanatory power to Step 6.

Findings from data used to analyze Research Question 2 were consistent with observations in findings from Research Question 1. Students ratings of the faculty member's ability to engage in clear and effective Communication of Expectations was higher for *younger* (i.e., in terms of credit hours not age) students, those taking the class as a required course versus elective component of one's degree program, those that expected a lower course grade, those with a lower overall GPA, and those that were full-time students (taking at least 12 hours per semester).

MGT 303

Table 13 provides the Means, Standard Deviations, and Pearson Correlation Coefficients for all variables included in the steps. Table 14 provides the Beta coefficients, t values, correlation coefficient, r squared, r squared change for each step, F change for each step, and degrees of freedom.

Class Format was significant in Step 1 and Step 2 and Step 3. Steps 1 through 5 were significant. Class Format added 6.4% (p <.05) explanatory power to the model. The addition of Classification in Step 2 was the most significant variable according to r squared change as it added 23.2% (p <.001) explanatory power to the model. The addition of whether or not the course was Required versus an Elective also was statistically significant as it added 16.1% (p <.001) of explanatory power to Step 3. Expected grade added 20.4% (p <.001) in explanatory power to Step 4. Current Overall GPA added 1.8% (p <.10) in explanatory power to Step 5.

MGT 340

Table 15 provides the Means, Standard Deviations, and Pearson Correlation Coefficients for all variables included in the steps. Table 16 provides the Beta coefficients, t values, correlation

coefficient, r squared, r squared change for each step, F change for each step, and degrees of freedom.

Class Format was not significant in in any Step of the model. The addition of Classification in Step 2 added 18.3% (p <.001) explanatory power to the model. The addition of whether or not the course was Required versus an Elective also was statistically significant as it added 15.5% (p <.001) of explanatory power to Step 3. Expected grade was the most significant variable in the model as it added 41.7% (p <.001) in explanatory power to Step 4. Current Overall GPA added 6.7% (p <.001) in explanatory power to Step 5.

MGT 350

Table 17 provides the Means, Standard Deviations, and Pearson Correlation Coefficients for all variables included in the steps. Table 18 provides the Beta coefficients, t values, correlation coefficient, r squared, r squared change for each step, F change for each step, and degrees of freedom.

Class Format was not significant in in any Step of the model. Steps 2 through 5 were significant. The addition of Classification in Step 2 added 33.5% (p <.001) explanatory power to the model. The addition of whether or not the course was Required versus an Elective was statistically the most significant variable as it added 41.8% (p <.001) of explanatory power to Step 3. Expected grade added 5.6% (p <.001) in explanatory power to Step 4. Current Overall GPA added 2.6% (p <.01) in explanatory power to Step 5.

MGT 491

Table 19 provides the Means, Standard Deviations, and Pearson Correlation Coefficients for all variables included in the steps. Table 20 provides the Beta coefficients, t values, correlation coefficient, r squared, r squared change for each step, F change for each step, and degrees of freedom.

Class Format was not significant in any Step of the model. Steps 2 and 4 were significant. The addition of Classification in Step 2 added 15.0% (p <.01) explanatory power to the model. Expected grade added 53.5% (p <.001) in explanatory power to Step 4.

CONCLUSION AND DISCUSSION

The findings reported here are consistent with prior research that found student ratings are often significantly influenced by variables that are outside of the faculty member's control. Prior research notes that expected grades (Marsh, 1980; McPherson, 2006; Stapleton & Murkison, 2001), and course structure and organization (Marks, 2000) along with this current works' findings of length of class period, classification of a student, whether the class was required for a student's degree program, a student's overall GPA, and whether the student was full-time. These findings also suggest that faculty and administrators need to carefully and cautiously interpret findings on a course-by-course basis (not a discipline or degree perspective as some do) as a result of observed nuances across five different classes.

Despite research that Class Format influenced a rapport-based metric (Interest in Students), the current analysis did not find the same level of significance for Organized, Flexible Teaching style and Communication of Expectations. While Class Format is an important variable to pay

attention to, other variables that have a higher explanatory relationship with student perceptions of classroom success as measured on the included scales. A student's Expected Grade and his/her Classification proved to be the two most significant variables in this analysis. What was most interesting was that students who expected lower grades and students who were *newer* to college had higher ratings. One would have expected that those students that expected higher grades would have rewarded the faculty member with a higher rating or that those students further along in their degree programs would have been more satisfied with the course. In a similar vein, a student's overall GPA had a significant relationship such that those with a lower GPA had higher ratings of the course on both scales. Furthermore, when the course was required as opposed to an elective, higher ratings were also observed which is counter to much research that says students often rate required classes lower. These findings suggest the importance of careful and thoughtful attention to structural variables, those that are often administratively determined and not faculty derived, before making important decisions about classroom success. Furthermore, these findings also suggest that while the utilization of *generalizations* for measuring teaching effectiveness in a course may make sense in some contexts, there may need to be modifications to those generalizations as observed differences in significance across the different classes.

Theoretically, scholars must continue to look for those black box variables that may be influencing perceptions of classroom success. The inclusion of structural variables in this analysis illustrates the need for more thoughtful and in-depth analysis of this issue. A second interesting finding relates to the directionality of the current findings. Why is it that *newer* students, those with a lower expected grade, those with a lower overall GPA, and those who are taking the classes as a required component rated the Organized, Flexible teaching style and Communication of Expectations higher when most research points in the opposite direction? Is it a byproduct of the specific discipline or perhaps as the newer generations enter academia, these students are now beginning to engender newer preferences/results?

Practically, the current findings suggest that faculty and administration need to carefully and thoughtfully consider how courses are structured and who is in them when interpreting student ratings. In the instances in which Class Format was significant, students provided significantly higher scores in 75-minute sessions compared with shorter or longer sessions. A student's overall GPA entering a class, Expected Grade in the class, Classification, and whether the class was Required all had significant impact on the faculty member's rating from students. The fact that these variables had such a profound impact on student-ratings is concerning because the faculty member typically has negligible control over these types of variables and yet these ratings are often used for making important decisions such as merit, annual performance reviews, promotion decisions, and tenure decisions. As noted by Marsh and Roche (1997), it is important that a faculty member be evaluated on a multi-dimensional approach in regards to teaching effectiveness (i.e., not unidimensionally derived from student-ratings). Furthermore, Murray (2006) stresses the weakness of student ratings measuring the multi-dimensional structure of teaching effectiveness (i.e. student ratings are incapable of measuring all facets of teaching effectiveness) and that while these decisions are used in important decisions for the faculty member (i.e. promotion, tenure, merit, etc.), current ways of evaluating teaching does not produce desired improvement in teaching effectiveness.

Strengths of the current work include the utilization of student ratings across five different courses taught over a 6+ year time period to over 600 students. The utilization of the five different courses allowed for a more accurate understanding of the nuances in measuring student ratings

across a single discipline. Furthermore, the 6+ year timespan allowed for a more comprehensive analysis as multiple administrations for the same course were included in the analysis.

Limitations to the current work were also present. First, student ratings are not mandatory and therefore do not require full participation. Second, all courses included in the analysis were from a single discipline (i.e. Management). Further research should include an analysis in other business disciplines (i.e. accounting, finance, marketing) along with other non-business disciplines (i.e., sciences, humanities, etc.). Third, confidentiality/anonymity requirements made it impossible to gather demographic data. Future research should strive to include these variables in analysis, if at all possible. Fourth, in a similar vein, the current work was unable to pair student ratings provided with grades earned by the actual student. The ability to pair student ratings with the grades earned would have provided more in-depth information for understanding the findings in regards to Expected Grade and Current GPA. Finally, only one faculty member taught all of the courses included in the analysis. While this presents some degree of control, and thus some confidence, for the current analysis, it also merits a need for future research to assess the impact of and/or by different faculty members teaching the same course.

Future research should focus on how the demographics of the faculty member may impact ratings (i.e., men versus women, white versus black, etc.). For example, research has shown that students may have a bias toward male faculty members. More concerning, the higher student ratings were provided to the male faculty members even when the student was not completely sure the faculty member was male (e.g., MacNell et al., 2015). Second, future research should analyze how other components of student ratings are impacted, including variables such as course characteristics (i.e., challenging, how it compared to other courses taken by the student, etc.).

REFERENCES

About AACSB (2021, April 7). *Who we are*. https://www.aacsb.edu/about

Dowling, C., Godfrey, J. M., & Gyles, N. (2003). Do hybrid flexible delivery teaching methods improve accounting students' learning outcomes? *Accounting Education, 12*(4), 373–391.

Downie, N. M. (1952). Student evaluation of faculty. *Journal of Higher Education*, 25, 495-503.

Duffy, F. D., Gordon, G. H., Whelan, G., Cole-Kelly, K., & Frankel, R. (2004). Assessing competence in communication and interpersonal skills: the Kalamazoo II report. *Academic Medicine*, *79*(6), 495–507.

Evans, E. D. (1969). Student activism and teaching effectiveness: Survival of the fittest? *Journal of College Student Personnel*, 10, 102-108.

Friedman, H. S. (1978). The relative strength of verbal versus nonverbal cues. *Personality and Social Psychology Bulletin*, *4*(1), 147–150.

Gage, N. L. (1961). The appraisal of college teaching: An analysis of ends. *Journal of Higher Education*, 32, 17-22.

Goode, S., Willis, R. A., Wolf, J. R., & Harris, A. L. (2007). Enhancing IS education with flexible teaching and learning. *Journal of Information Systems Education*, *18*(3), 297–302.

Hewson, M. G., Copeland, H. L., & Fishleder, A. J. (2001). What's the use of faculty development? Program evaluation using retrospective self-assessments and independent performance ratings. *Teaching and Learning in Medicine*, *13*(3), 153–160.

Jussim, L., Eccles, J., & Madon, S. (1996). Social perception, social stereotypes, and teacher expectations: Accuracy and the quest for the powerful self-fulfilling prophecy. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 28, pp. 281–388). Academic Press.

Lang, H. G., McKee, B. G., & Conner, K. (1993). Characteristics of effective teachers: A descriptive study of the perceptions of faculty and deaf college students. *American Annals of the Deaf*, *138*(3), 252–259.

Liao, S. (2013). Psychological contract between teacher and student improves teaching process in the network courses of college. In *2012 First National Conference for Engineering Sciences (FNCES 2012)*.

Marks, R. B. (2000). Determinants of student evaluations of global measures of instructor and course value. *Journal of Marketing Education*, 22, 108–119.

Marsh, H. W. (1978). Students' evaluations of instructional effectiveness: Relationship to student, course, and instructor characteristics. Paper read at the annual meeting of the American Educational Research Association.

Marsh, H. W. (1980). The influence of student, course, and instructor characteristics in evaluation of university teaching. *American Educational Research Journal*, *17*(1), 219–237.

Marsh, H. W., & Roche, L. A. (1997). Making students' evaluations of teaching effectiveness effective: The critical issues of validity, bias, and utility. *American Psychologist*, *52*(11), 1187-1197.

MacNell, L., Driscoll, A., & Hunt, A.N. (2015). What's in a name: exposing gender bias in student ratings of teaching. *Innovative Higher Education, 40*, 291–303.

McPherson, M. A. (2006). Determinants of how students evaluate teachers. *Journal of Economic Education*, *37*(1), 3–21.

Murray, H. G. (1984). The impact of formative and summative evaluation of teaching in North American universities. *Assessment and Evaluation in Higher Education*, *9*(2), 117–132.

Murray, H. G., Rushton, J. P., & Paunonen, S. V. (1990). Teacher personality traits and student instructional ratings in six types of university courses. *Journal of Educational Psychology*, *82*(2), 250.

Palmer, S. (2001). Engineering flexible teaching and learning in engineering education. *European Journal of Engineering Education*, *26*(1), 1–13.

Rischin, R. (2002). Exploring learning styles: Developing a flexible teaching approach. *The American Music Teacher*, *52*(2), 53–55.

Spooner, F., Jordan, L., Algozzine, B., & Spooner, M. (1999). Student ratings of instruction in distance learning and on-campus classes. *The Journal of Educational Research*, *92*(3), 132–140.

Stapleton, R. J., & Murkison, G. (2001). Optimizing the fairness of student evaluations: A study of correlations between instructor excellence, study production, learning production, and expected grades. *Journal of Management Education*, *25*(3), 269–292.

Telford, A. (1995). Mixed-mode delivery: The best of both worlds? In D. Thomas (Eds.), *Flexible learning strategies in higher and further education* (pp. 164–175). Cassell.

Thomas, D. (Ed). (1995). Learning to be flexible. In D. Thomas (Eds.), *Flexible learning strategies in higher and further education* (pp. 1–11). Cassell.

Yedidia, M. J., Gillespie, C. C., Kachur, E., Schwartz, M. D., Ockene, J., Chepaitis, A. E., ... & Lipkin Jr, M. (2003). Effect of communications training on medical student performance. *JAMA*, *290*(9), 1157–1165.

APPENDIX

300 – Organized, Flexible Teaching

N = 357

Table 1: Means, Standard Deviations, and Pearson Correlation Coefficients

Variable	M	SD	Org/Flexible Teaching	Class Format	Classification	Required vs Elective	Expected Grade	GPA
Org/Flexible Teaching	4.53	.556						
Class Format	1.46	.499	.084					
Classification	3.04	.646	-.669	-.252				
Required vs Elective	1.05	.225	-.447	-.067	.333			
Expected Grade	1.56	.627	-.783	-.062	.670	.387		
Current GPA	3.53	.999	-.752	-.176	.780	.350	.716	
Workload Current Semester	1.97	.165	-.145	-.049	.274	.040	.151	.294

Table 2: Beta coefficients, t values, r, R squared, R squared change, F change, and Degrees of Freedom

	Model **Organized, Flexible Teaching**						
Variable	*B*	*t*	r	R ^2	Change R^2	F Change	df 1, df 2
Step 1							
Constant	4.390	48.402****					
Format	.094	1.591	.084	.007	.007	2.533	1,355
Step 2							
Constant	6.484	46.350****					
Format	-.100	-2.219**					
Classification	-.596	-17.072****	.675	.455	.448	291.465****	1,354
Step 3							
Constant	6.907	46.485****					
Format	-.095	-2.222**					
Classification	-.523	-14.926****					
Req. vs Elect.	-.618	-6.366****	.715	.511	.056	40.144****	1,353
Step 4							
Constant	6.379	49.567****					
Format	-.026	-.729					
Classification	-.216	-5.798***					
Req. vs Elect.	-.367	-4.447****					
Expected Grade	-.496	-13.047****	.819	.670	.159	170.216****	1,352
Step 5							
Constant	6.388	52.530****					
Format	-.033	-.978					
Classification	-.062	-1.464					
Req. vs Elect.	-.335	-4.289****					
Expected Grade	-.394	-10.078****					
GPA	-.187	-6.581****	.841	.707	.036	43.316****	1.351
Step 6							
Constant	6.091	28.028****					
Format	-.035	-1.036					
Classification	-.069	-1.639					
Req. vs Elect.	-.328	-4.197****					
Expected Grade	-.387	-9.877****					
GPA	-.195	-6.782****					
Workload	.169	1.644	.842	.709	.002	2.704	1,350

*p<.10, **p < 0.05, ***p < 0.01, ****p< 0.001

303 – Organized, Flexible Teaching
N = 75

Table 3: Means, Standard Deviations, and Pearson Correlation Coefficients

Variable	M	SD	Org/Flexible Teaching	Class Format	Classification	Required vs Elective	Expected Grade	GPA
Org/Flexible Teaching	4.58	.584						
Class Format	1.25	.438	.187					
Classification	3.63	.564	-.423	.224				
Required vs Elective	1.55	.501	-.619	-.085	.636			
Expected Grade	1.59	.680	-.774	-.279	.473	.633		
Current GPA	3.41	.902	-.730	-.132	.600	.749	.745	
Workload Current Semester	1.96	.197	-.148	-.194	.350	.224	.177	.322

Table 4: Beta coefficients, t values, r, R squared, R squared change, F change, and Degrees of Freedom

	Model **Organized, Flexible Teaching**						
Variable	*B*	*t*	r	R ^2	Change R^2	F Change	df 1, df 2
Step 1							
Constant	4.269	20.999****					
Format	.249	1.625	.187	.035	.035	2.642	1,73
Step 2							
Constant	5.922	15.040****					
Format	.395	2.855***					
Classification	-.506	-4.713****	.512	.262	.228	22.215****	1,72
Step 3							
Constant	5.720	15.980****					
Format	.228	1.745*					
Classification	-.134	-1.022					
Req. vs Elect.	-.607	-4.207****	.640	.410	.147	17.700****	1,71
Step 4							
Constant	5.782	20.169****					
Format	-.031	-.277					
Classification	.040	.370					
Req. vs Elect.	-.272	-2.146**					
Expected Grade	-.558	-6.391****	.792	.627	.218	40.841****	1,70
Step 5							
Constant	5.900	21.030****					
Format	-.039	-.357					
Classification	.095	.885					
Req. vs Elect.	-.133	-.992					
Expected Grade	-.441	-4.573****					
GPA	-.207	-2.496**	.811	.658	.031	6.228**	1.69
Step 6							
Constant	5.688	12.154****					
Format	-.017	-.147					
Classification	.072	.626					
Req. vs Elect.	-.124	-.906					
Expected Grade	-.430	-4.346****					
GPA	-.217	-2.547**					
Workload	.137	.567	.812	.660	.002	.322	1,68

*p<.10, **p < 0.05, ***p < 0.01, ****p< 0.001

340 – Organized, Flexible Teaching
N = 103

Table 5: Means, Standard Deviations, and Pearson Correlation Coefficients

Variable	M	SD	Org/Flexible Teaching	Class Format	Classification	Required vs Elective	Expected Grade	GPA
Org/Flexible Teaching	4.52	.678						
Class Format	1.30	.461	.023					
Classification	3.79	.457	-.411	-.204				
Required vs Elective	1.67	.473	-.469	-.080	.397			
Expected Grade	1.63	.714	-.815	-.076	.507	.449		
Current GPA	3.64	.815	-.784	.056	.582	.682	.680	
Workload Current Semester	1.98	.139	-.100	-.061	.398	.200	.125	.285

Table 6: Beta coefficients, t values, r, R squared, R squared change, F change, and Degrees of Freedom

	Model **Organized, Flexible Teaching**						
Variable	*B*	*t*	r	R ^2	Change R^2	F Change	df 1, df 2
Step 1							
Constant	4.476	22.174****					
Format	.034	.231	.023	.001	.001	.054	1,101
Step 2							
Constant	7.022	11.945****					
Format	-.093	-.682					
Classification	-.629	-4.562****	.416	.173	.172	20.808****	1,100
Step 3							
Constant	7.081	12.873****					
Format	-.092	-.723					
Classification	-.415	-2.966***					
Req. vs Elect.	-.520	-3.913****	.532	.283	.111	15.311****	1,99
Step 4							
Constant	5.976	15.606****					
Format	-.061	-.710					
Classification	.037	.365					
Req. vs Elect.	-.195	-2.077**					
Expected Grade	-.731	-11.015****	.825	.680	.396	121.320****	1,98
Step 5							
Constant	5.763	18.360****					
Format	.092	1.248					
Classification	.271	3.015***					
Req. vs Elect.	.176	1.892*					
Expected Grade	-.518	-8.365****					
GPA	-.505	-7.088****	.888	.789	.109	50.241****	1.97
Step 6							
Constant	5.342	10.943****					
Format	.092	1.261					
Classification	.238	2.521**					
Req. vs Elect.	.176	1.891*					
Expected Grade	-.507	-8.080****					
GPA	-.515	-7.182****					
Workload	.284	1.125	.890	.792	.003	1.265	1,96

*p<.10, **p < 0.05, ***p < 0.01, ****p< 0.001

350 – Organized, Flexible Teaching
N = 72

Table 7: Means, Standard Deviations, and Pearson Correlation Coefficients

Variable	M	SD	Org/Flexible Teaching	Class Format	Classification	Required vs Elective	Expected Grade	GPA
Org/Flexible Teaching	4.42	.683						
Class Format	2.00	1.007	.012					
Classification	3.63	.488	-.522	-.430				
Required vs Elective	1.21	.409	-.844	.000	.327			
Expected Grade	1.49	.605	-.764	.277	.292	.610		
Current GPA	3.49	.949	-.808	-.250	.673	.642	.588	
Workload Current Semester	1.97	.165	-.145	.169	.218	.087	.137	.177

Table 8: Beta coefficients, t values, r, R squared, R squared change, F change, and Degrees of Freedom

	Model **Organized, Flexible Teaching**						
Variable	*B*	*t*	r	R ^2	Change R^2	F Change	df 1, df 2
Step 1							
Constant	4.405	24.251****					
Format	.008	.098	.012	.000	.000	.010	1,70
Step 2							
Constant	7.993	12.506****					
Format	-.177	-2.389**					
Classification	-.889	-5.775****	.574	.329	.329	33.356****	1,69
Step 3							
Constant	7.769	21.585****					
Format	-.090	-2.118**					
Classification	-.469	-5.027****					
Req. vs Elect.	-1.216	-12.165****	.889	.791	.462	147.990****	1,68
Step 4							
Constant	7.266	23.112****					
Format	.010	.252					
Classification	-.322	-3.918****					
Req. vs Elect.	-.894	-8.761****					
Expected Grade	-.416	-5.482****	.925	.856	.065	30.052****	1,67
Step 5							
Constant	7.127	24.429****					
Format	-.022	-.586					
Classification	-.162	-1.850*					
Req. vs Elect.	-.745	-7.267****					
Expected Grade	-.312	-4.136****					
GPA	-.204	-3.606****	.938	.880	.024	13.001***	1.66
Step 6							
Constant	7.042	17.632****					
Format	-.026	-.650					
Classification	-.169	-1.859*					
Req. vs Elect.	-.744	-7.204****					
Expected Grade	-.310	-4.061****					
GPA	-.206	-3.594***					
Workload	.060	.313	.938	.880	.000	.098	1,65

*p<.10, **p < 0.05, ***p < 0.01, ****p< 0.001

491 – Organized, Flexible Teaching
N = 34

Table 9: Means, Standard Deviations, and Pearson Correlation Coefficients

Variable	M	SD	Org/Flexible Teaching	Class Format	Classification	Required vs Elective	Expected Grade	GPA
Org/Flexible Teaching	4.50	.782						
Class Format	1.29	.462	.132					
Classification	4.00	.492	-.517	-.399				
Required vs Elective	1.82	.387	-.300	-.209	.477			
Expected Grade	1.53	.706	-.831	-.213	.348	.352		
Current GPA	3.35	.981	-.807	-.169	.565	.568	.772	
Workload Current Semester	1.94	.239	-.162.0077866009488	.161	.000	.540	.190	.350

Table 10: Beta coefficients, t values, r, R squared, R squared change, F change, and Degrees of Freedom

	Model **Organized, Flexible Teaching**						
Variable	*B*	*t*	r	R ^2	Change R^2	F Change	df 1, df 2
Step 1							
Constant	4.212	10.363****					
Format	.223	.751	.132	.017	.017	.565	1,32
Step 2							
Constant	8.206	6.529****					
Format	-.150	-.533					
Classification	-.878	-3.313***	.524	.274	.257	10.973***	1,31
Step 3							
Constant	8.261	6.447****					
Format	-.153	-.535					
Classification	-.825	-2.758**					
Req. vs Elect.	-.145	-.406	.527	.278	.004	.165	1,30
Step 4							
Constant	8.037	11.131****					
Format	-.261	-1.617					
Classification	-.576	-3.362***					
Req. vs Elect.	.230	1.116					
Expected Grade	-.860	-8.100****	.882	.779	.501	65.603****	1,29
Step 5							
Constant	7.531	10.617****					
Format	-.181	-1.170					
Classification	-.405	-2.301**					
Req. vs Elect.	.414	1.984*					
Expected Grade	-.606	-4.707****					
GPA	-.299	-2.294**	.902	.814	.035	5.264**	1.28
Step 6							
Constant	7.728	8.236****					
Format	-.171	-1.061					
Classification	-.427	-2.241**					
Req. vs Elect.	.458	1.820*					
Expected Grade	-.610	-4.018****					
GPA	-.289	-2.133**					
Workload	-.120	-.328	.902	.814	.001	.108	1,27

*p<.10, **p < 0.05, ***p < 0.01, ****p< 0.001

300 – Communication of Expectations

N = 357

Table 11: Means, Standard Deviations, and Pearson Correlation Coefficients

Variable	M	SD	Communication of expectations	Class Format	Classification	Required vs Elective	Expected Grade	GPA
Communication of expectations	4.59	.507						
Class Format	1.46	.499	.061					
Classification	3.04	.646	-.633	-.252				
Required vs Elective	1.05	.225	-.426	-.067	.333			
Expected Grade	1.56	.627	-.775	-.062	.670	.387		
Current GPA	3.53	.999	-.748	-.176	.780	.350	.716	
Workload Current Semester	1.97	.165	-.136	-.049	.274	.040	.151	.294

Table 12: Beta coefficients, t values, r, R squared, R squared change, F change, and Degrees of Freedom

	Model **Communication of Expectations**						
Variable	*B*	*t*	r	R ^2	Change R^2	F Change	df 1, df 2
Step 1							
Constant	4.504	54.359****					
Format	.062	1.156	.061	.004	.004	1.337	1,355
Step 2							
Constant	6.324	47.652****					
Format	-.106	-2.482**					
Classification	-.518	-15.640****	.641	.411	.407	244.601****	1,354
Step 3							
Constant	6.695	47.114****					
Format	-.102	-2.487**					
Classification	-.454	-13.544****					
Req. vs Elect.	-.543	-5.814****	.680	.462	.051	33.805****	1,353
Step 4							
Constant	6.187	50.415****					
Format	-.035	-1.039					
Classification	-.158	-4.460***					
Req. vs Elect.	-.301	-3.823****					
Expected Grade	-.477	-13.163****	.800	.640	.177	173.272****	1,352
Step 5							
Constant	6.196	54.372****					
Format	-.043	-1.357					
Classification	.008	.191					
Req. vs Elect.	-.266	-3.640****					
Expected Grade	-.367	-10.026****					
GPA	-.201	-7.566****	.831	.690	.051	57.250****	1.351
Step 6							
Constant	5.898	28.979****					
Format	-.045	-1.420					
Classification	-.000	-.002					
Req. vs Elect.	-.259	-3.542****					
Expected Grade	-.361	-9.819****					
GPA	-.209	-7.779****					
Workload	.169	1.762*	.832	.693	.003	3.104*	1,350

*p<.10, **p < 0.05, ***p < 0.01, ****p< 0.001

303 – Communication of Expectations
N = 75

Table 13: Means, Standard Deviations, and Pearson Correlation Coefficients

Variable	M	SD	Communication of Expectations	Class Format	Classification	Required vs Elective	Expected Grade	GPA
Communication of Expectations	4.62	.530						
Class Format	1.25	.438	.253					
Classification	3.63	.564	-.412	.224				
Required vs Elective	1.55	.501	-.640	-.085	.636			
Expected Grade	1.59	.680	-.790	-.279	.473	.633		
Current GPA	3.41	.902	-.722	-.132	.600	.749	.745	
Workload Current Semester	1.96	.197	-.146	-.194	.350	.224	.177	.322

Table 14: Beta coefficients, t values, r, R squared, R squared change, F change, and Degrees of Freedom

	Model **Communication of Expectations**						
Variable	*B*	*t*	r	R ^2	Change R^2	F Change	df 1, df 2
Step 1							
Constant	4.240	23.312****					
Format	.306	2.233**	.253	.064	.064	4.988**	1,73
Step 2							
Constant	5.756	16.465****					
Format	.440	3.582***					
Classification	-.464	-4.867****	.544	.296	.232	23.686****	1,72
Step 3							
Constant	5.564	17.831****					
Format	.282	2.470**					
Classification	-.111	-.968					
Req. vs Elect.	-.577	-4.583****	.676	.456	.161	21.001****	1,71
Step 4							
Constant	5.618	22.613****					
Format	.053	.548					
Classification	.043	.454					
Req. vs Elect.	-.282	-2.563**					
Expected Grade	-.492	-6.491****	.813	.661	.204	42.137****	1,70
Step 5							
Constant	5.700	23.080****					
Format	.048	.504					
Classification	.081	.856					
Req. vs Elect.	-.185	-1.563					
Expected Grade	-.410	-4.826***					
GPA	-.144	-1.975*	.824	.679	.018	3.900*	1.69
Step 6							
Constant	5.460	13.272****					
Format	.073	.716					
Classification	.055	.542					
Req. vs Elect.	-.174	-1.451					
Expected Grade	-.397	-4.567****					
GPA	-.156	-2.078**					
Workload	.156	.733	.825	.681	.003	.538	1,68

*p<.10, **p < 0.05, ***p < 0.01, ****p< 0.001

340 – Communication of Expectations
N = 103

Table 15: Means, Standard Deviations, and Pearson Correlation Coefficients

Variable	M	SD	Communication of Expectations	Class Format	Classification	Required vs Elective	Expected Grade	GPA
Communication of Expectations	4.60	.537						
Class Format	1.30	.461	.036					
Classification	3.79	.457	-.427	-.204				
Required vs Elective	1.67	.473	-.530	-.080	.397			
Expected Grade	1.63	.714	-.852	-.076	.507	.449		
Current GPA	3.64	.815	-.787	.056	.582	.682	.680	
Workload Current Semester	1.98	.139	-.106	-.061	.398	.200	.125	.285

Table 16: Beta coefficients, t values, r, R squared, R squared change, F change, and Degrees of Freedom

	Model **Communication of Expectations**						
Variable	*B*	*t*	r	R ^2	Change R^2	F Change	df 1, df 2
Step 1							
Constant	4.541	28.402****					
Format	.042	.366	.036	.001	.001	.134	1,101
Step 2							
Constant	6.623	14.323****					
Format	-.061	-.572					
Classification	-.514	-4.743****	.430	.185	.183	22.498****	1,100
Step 3							
Constant	6.679	15.958****					
Format	-.061	-.625					
Classification	-.314	-2.951***					
Req. vs Elect.	-.487	-4.814****	.583	.339	.155	23.173****	1,99
Step 4							
Constant	5.780	21.854****					
Format	-.035	-.592					
Classification	.054	.758					
Req. vs Elect.	-.223	-3.429***					
Expected Grade	-.594	-12.967****	.870	.757	.417	168.145****	1,98
Step 5							
Constant	5.648	24.848****					
Format	.060	1.121					
Classification	.199	3.052***					
Req. vs Elect.	.008	.114					
Expected Grade	-.462	-10.306****					
GPA	-.313	-6.078****	.908	.824	.067	36.939****	1.97
Step 6							
Constant	5.364	15.160****					
Format	.060	1.132					
Classification	.177	2.579**					
Req. vs Elect.	.007	.111					
Expected Grade	-.454	-10.000****					
GPA	-.320	-6.163****					
Workload	.191	1.047	.909	.826	.002	1.095	1,96

*p<.10, **p < 0.05, ***p < 0.01, ****p< 0.001

350 – Communication of Expectations
N = 72

Table 17: Means, Standard Deviations, and Pearson Correlation Coefficients

Variable	M	SD	Communication of Expectations	Class Format	Classification	Required vs Elective	Expected Grade	GPA
Communication of Expectations	4.48	.637						
Class Format	2.00	1.007	.097					
Classification	3.63	.488	-.564	-.430				
Required vs Elective	1.21	.409	-.812	.000	.327			
Expected Grade	1.49	.605	-.710	.277	.292	.610		
Current GPA	3.49	.949	-.816	-.250	.673	.642	.588	
Workload Current Semester	1.97	.165	-.139	.169	.218	.087	.137	.177

Table 18: Beta coefficients, t values, r, R squared, R squared change, F change, and Degrees of Freedom

	Model **Communication of Expectations**						
Variable	*B*	*t*	r	R ^2	Change R^2	F Change	df 1, df 2
Step 1							
Constant	4.358	25.918****					
Format	.061	.813	.097	.009	.009	.660	1,70
Step 2							
Constant	7.741	13.200****					
Format	-.113	-1.659					
Classification	-.837	-5.934****	.587	.344	.335	35.218****	1,69
Step 3							
Constant	7.578	21.271****					
Format	-.038	-.896					
Classification	-.474	-5.161****					
Req. vs Elect.	-1.079	-10.922****	.873	.762	.418	119.298****	1,68
Step 4							
Constant	7.127	21.626****					
Format	.049	1.182					
Classification	-.341	-3.964****					
Req. vs Elect.	-.810	-7.679****					
Expected Grade	-.356	-4.525****	.904	.818	.056	20.478****	1,67
Step 5							
Constant	6.990	22.532****					
Format	.018	.446					
Classification	-.184	-1.977*					
Req. vs Elect.	-.666	-6.189****					
Expected Grade	-.254	-3.186***					
GPA	-.199	-3.312***	.918	.844	.026	10.970***	1.66
Step 6							
Constant	6.928	16.299****					
Format	.015	.355					
Classification	-.189	-1.957*					
Req. vs Elect.	-.665	-6.135****					
Expected Grade	-.252	-3.129***					
GPA	-.201	-3.294***					
Workload	.044	.216	.919	.844	.000	.046	1,65

*p<.10, **p < 0.05, ***p < 0.01, ****p< 0.001

491 – Communication of Expectations
N = 34

Table 19: Means, Standard Deviations, and Pearson Correlation Coefficients

Variable	M	SD	Communication of Expectations	Class Format	Classification	Required vs Elective	Expected Grade	GPA
Communication of Expectations	4.71	.415						
Class Format	1.29	.462	.076					
Classification	4.00	.492	-.385	-.399				
Required vs Elective	1.82	.387	-.326	-.209	.477			
Expected Grade	1.53	.706	-.827	-.213	.348	.352		
Current GPA	3.35	.981	-.739	-.169	.565	.568	.772	
Workload Current Semester	1.94	.239	-.176	.161	.000	.540	.190	.350

Table 20: Beta coefficients, t values, r, R squared, R squared change, F change, and Degrees of Freedom

	Model **Communication of Expectations**						
Variable	*B*	*t*	r	R ^2	Change R^2	F Change	df 1, df 2
Step 1							
Constant	4.623	21.284****					
Format	.068	.432	.076	.006	.006	.186	1,32
Step 2							
Constant	6.244	8.667****					
Format	-.083	-.513					
Classification	-.356	-2.345**	.394	.156	.150	5.498**	1,31
Step 3							
Constant	6.319	8.721****					
Format	-.087	-.536					
Classification	-.282	-1.670					
Req. vs Elect.	-.200	-.992	.427	.182	.027	.985	1,30
Step 4							
Constant	6.196	14.283****					
Format	-.146	-1.505					
Classification	-.146	-1.417					
Req. vs Elect.	.006	.046					
Expected Grade	-.472	-7.403****	.847	.717	.535	54.809****	1,29
Step 5							
Constant	6.046	13.274****					
Format	-.122	-1.230					
Classification	-.095	-.842					
Req. vs Elect.	.060	.449					
Expected Grade	-.397	-4.153****					
GPA	-.089	-1.061	.853	.728	.011	1.125	1.28
Step 6							
Constant	5.956	9.877****					
Format	-.127	-1.231					
Classification	-.086	-.699					
Req. vs Elect.	.040	.246					
Expected Grade	-.395	-4.044****					
GPA	-.093	-1.068					
Workload	.055	.233	.854	.729	.001	.054	1,27

*p<.10, **p < 0.05, ***p < 0.01, ****p< 0.001

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