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DOES COURSE DELIVERY METHOD IMPACT PERFORMANCE IN SUBSEQUENT COURSES? EVIDENCE FROM A FINANCIAL MANAGEMENT COURSE

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ABSTRACT

This study seeks to examine whether the mode of presentation for a foundational course affects student academic performance in a higher level course. In other words, do students retain more knowledge when a course is presented in the traditional lecture format or via online delivery? The course investigated was financial management, which serves as a prerequisite for several other courses in a business curriculum. Students from a medium sized state university (student population 6,500) with an AACSB accredited College of Business self-selected the online or lecture format. The presentation of the prerequisite did not have an impact on a student's grade in a capstone business course. However, it was found that students in the web version of financial management performed better (i.e., earned higher grades) in upper level finance courses than those students enrolled in the lecture version of the prerequisite.

JEL: I21

KEYWORDS: Online Learning, Face-to-Face Instruction, Knowledge Retention

INTRODUCTION

The demand for online coursework evidences the acceptance of distance learning in higher education. While some students earn an entire degree online without ever setting foot in a classroom, others supplement a traditional campus-based education with online classes. According to one study, “approximately 5.5 million students took at least one online course in 2012. Of this number, 2.6 million were enrolled in fully online programs, while the remainder took some courses online and some in classrooms” (Straumsheim, 2014). Much discussion has followed regarding the quality of instruction offered online and the performance of enrolled students. Proponents of face-to-face course delivery argue that there is no substitute for the traditional lecture, with its give and take between professor and student. Web supporters cite time and resource efficiency, making online presentation the superior method of instruction. However, do students retain more knowledge when a course is presented in the traditional lecture format or via online delivery? Do students that have the material presented to them by a professor in real time have a better foundation for later applying that knowledge in another class, or does the convenience and student self-reliance associated with web courses lead to a richer learning experience? Thus, it is the purpose of this research to examine whether subsequent academic success is dependent upon prior method of delivery. The remainder of this article presents a literature review on the subject, followed by the data and methodology employed, which includes an explanation of the courses investigated. The prerequisite in this study is financial management, while the subsequent courses include strategic management and upper level finance. Multiple regression analysis tests the paper's hypothesis. Empirical results and conclusions are at the end of the paper.

LITERATURE REVIEW

Since the introduction of online education in 1985 (Crotty, 2012), its popularity has grown exponentially. What was once little more than glorified correspondent courses, web learning now includes full lectures available 24/7; integrated learning management systems geared to a specific textbook; whiteboard tutorials; message boards allowing interaction between students and instructors; virtual office hours for faculty; and online proctored examinations. Online education, whether in whole or part, is an attractive alternative to students, faculty and university administrators. Online education offers students and instructors flexibility and convenience. Content can be learned (and taught) anywhere, at any time, without sacrificing family and work responsibilities. A nationwide decrease in funding to higher education has made colleges and universities flock to deliver courses online: the overhead is low and the return on investment is high.

Much debate has followed regarding whether student success is dependent upon mode of delivery. A large portion of the resulting research found no significant performance difference between online students and those enrolled in the face-to-face version of the same class. Reuter (2009) found that students in a lab class earned similar course grades, regardless of delivery. Schou (2007) saw no difference between the mean final exam score of a face-to-face class and that of the online section of introductory statistics. According to McLaren (2004), performance was “independent of the mode of instruction.” Even online students with access to video lectures did not perform any differently than those in the physical presence of a real time lecture, as demonstrated by Neuhauser (2002). Gange and Shepard (2001) investigated an accounting course and showed no difference performance wise between those students enrolled in the web version and those in the classroom. Russell (1999) saw “no statistically significant differences in student learning between learning formats.” However, some studies have shown a difference, giving classroom instruction the edge.

Terry and Lewer (2003) found that online economics students scored lower on a final exam than those who were campus based, with no discernable difference between campus and hybrid students. Coats, Humphreys, Kane, and Vachris (2004) showed that classroom students scored higher on the Test of Understanding College Economics (TUCE) than those studying online. Their experiment controlled for various student and instructor related differences. Figlio, Rush and Yin (2013) found there to be no difference in the instructional effectiveness of different modes of delivery, and only certain groups benefit from live instruction: males, Hispanics, and those that are weak academically. A few researchers have examined the type of knowledge delivered. When given a choice, most students prefer face-to-face instruction for math-based courses (Johnson, Dasgupta, Zhang, and Evans, 2009). Lam (2009) and Olson and Wisher (2002) found that the better format for delivering “procedural and declarative” content was web based. Research examining the retention of knowledge after completion of an online course has been sparse and its results mixed. Schardt, Garrison and Kochi (2002) examined this concept via a post exam administered to medical librarians in a continuing education course.

The students in the internet section retained twice as much material as those in the classroom. Unfortunately, a small sample size limits the applicability of these results. Schardt and Garrison (2007) later expand the sample and initially arrive at the same conclusion. However, after analyzing the data, there was no detectable difference between the two groups. In a study by Vichitvejpaisal, Panjamawat and Varasunun (2011), nursing students volunteered to take part in an experiment evaluating online versus live lecture problem based learning; and the online group displayed better knowledge retention than their in-class counterparts. Fordis, King, Ballantyne, Jones, Schneider, Spann, Greenberg and Greisinger (2005) contend that online learning “can produce objectively measured changes in behavior as well as sustained gains in knowledge that are comparable or superior to those realized from effective live activities.” They arrived at this conclusion after studying the performance of 97 physicians randomly assigned to an internet based continuing medical education seminar or one taught in a classroom. A grant issued by the National Association of State Boating Law Administrators to Deatz, Gossman and Trippe (2010) was to compare

knowledge retained by classroom versus online boating safety course participants four months after the course ended. While this seemed very promising, the parameters of the study changed, and the final report only investigated knowledge retained from classroom instruction in order to act as a baseline for further work. Cosgrove and Olitsky (2015) compare classroom, online and hybrid course delivery. Collection of data comparing knowledge retention occurred at three intervals during the semester. They find that “one mode is not better for acquiring knowledge;” however, face-to-face students retain material better. Unfortunately, these studies suffer from one or more of the following weaknesses, preventing wide scale applicability of results: small sample size, the courses are short, taught by peers, performance not assessed via graded assignments, and knowledge retention examined shortly after instruction ended.

DATA AND METHODOLOGY

There has been no research examining whether subsequent academic success is dependent upon prior method of delivery. This study will examine whether the mode of presentation for a foundational course affects student academic performance in a higher level course. The course investigated was financial management, which serves as a prerequisite for several other courses in a business curriculum. Students from a medium sized state university (student population 6,500) were surveyed.

Foundational Course: Financial Management

Financial management “focuses on decisions relating to how much and what types of assets to acquire, how to raise the capital needed to purchase assets, and how to run the firm so as to maximize its value” (Brigham and Houston, 2015). According to the Association for the Advancement of Collegiate Schools of Business (AACSB), the international accrediting body for collegiate schools of business, students must demonstrate a mastery of this subject in order to be awarded a baccalaureate degree. At the university surveyed, students are to earn a “C” or above in financial management in order to receive a diploma. Furthermore, financial management acts as a pre-requisite for strategic management, the college’s capstone business course, as well as, upper level finance classes. A grade of “C” or above in financial management is necessary in order to enroll in another class for which it serves as a prerequisite. Unfortunately, many students find financial management to be extremely difficult. Thus, to ensure success, students must have earned at least 54 hours of non-developmental coursework to register, as well as, have earned credit in the following areas: microeconomics, macroeconomics, statistics, and financial (or managerial) accounting.

Regardless of the delivery method, the content of the financial management course remained the same, which included the following concepts: time value of money, financial statement construction and analysis, stock and bond valuation, risk and return, capital budgeting (including cost of capital and cash flow estimation) and working capital management. Even though different professors taught the course during the time surveyed, they used one textbook, covered identical chapters, and shared the same student learning objectives. The online presentation of financial management is offered only during the summer term, while the lecture version is offered every semester. Thus, only summer sessions 2007-2013 were investigated. Upon registration, students had the option to choose their preference of course delivery. Unfortunately, herein is a weakness of this research: Students with strong academic skills and/or the ability to self-discipline may be more likely to choose the online format; students with poor study skills may prefer the lecture version with the presence of an instructor to “stay on track.” This could be true since, as mentioned previously, many students find financial management to be a demanding course. Furthermore, high achieving students are more likely to perform well in subsequent courses, regardless of the presentation of a prerequisite.

The online course stretched over 8 weeks. Students and professor communicated via email, discussion forums, online office hours, social media, as well as, Aplia for Finance (the supplemental package offered by the textbook’s publisher). Students could also communicate with each other, as well as their professor,

by using the class' discussion forums. Many tools were available to students in order to enrich their online experience and help ensure a favorable outcome. These tools were available at any time, could be accessed anywhere an internet connection was available, and included recorded lectures, power point slides, and narrated tutorials using a whiteboard. All work for the course was completed online. Students could work ahead; however, quizzes, homework assignments and exams had specific due dates. Exams and quizzes were open book.

Students who chose the campus lecture presentation attended four, two and one-half hour lectures per week for four weeks. The traditional format ensued: professors lectured, students listened and took notes on the material presented, but were encouraged to take part in class discussions and ask questions. Faculty was available to students during regularly scheduled office hours; other times, by appointment. However, outside of class, students were able to converse/interact with their professor and other students by email and message boards set up within Moodle, the university's course management system. All work for the course (quizzes, homework assignments, and exams) was completed using paper and pencil and had specific due dates. Exams and quizzes were closed book.

Subsequent Courses: Strategic Management and Upper Level Finance

Financial management serves as a foundation for several other classes in a college of business and is ordinarily scheduled by a student during his/her third year of study. The following describes the investigated courses for which financial management is a pre-requisite: strategic management and upper level finance courses. Working knowledge of the basics of financial management is necessary for academic success in these subsequent courses. At the university examined, strategic management is a capstone business course in which case studies are employed to hone managerial problem solving skills; and, it must be taken in the final semester of a student's degree plan. Several courses besides financial management act as prerequisites to strategic management. These include principles of business communications, management of organizations, and marketing. Successful completion (grade "C" or above) is required for graduation. Strategic management is offered every semester, but only presented in the traditional lecture format. Students that take upper level finance courses beyond the requisite are those that have a sincere interest in finance, usually finance and accounting majors. Financial management "sets the stage" for more complex study in the field and serves as a gateway course. It is important that those students have a strong footing in the foundational concepts of finance. The following is a list of undergraduate finance courses offered at the school surveyed for which financial management serves as a prerequisite: financial markets and institutions, principles of insurance, principles of real estate, investments, interim financial management, financial statement analysis, commercial banking, entrepreneurial finance, real estate appraisal, international finance, and the analytics of investing. Some are offered online, but most are not.

Hypothesis Tested

The hypothesis tested is the following: students who took a foundational course online will not perform differently in a subsequent course than students who took the same foundational course on campus. The foundational course in this study is financial management. The subsequent course the first time the hypothesis is tested is strategic management. Both classes are part of every student's core curriculum for attainment of a bachelor's degree in business from the university under study. The second time the hypothesis is tested relates to students that take subsequent finance courses: Does presentation of the fundamentals course determine success in subsequent finance courses? Each student's grade in the foundational course is also part of the model; it is hypothesized that students with high grades in the prerequisite will also achieve similar academic success in subsequent courses.

The model is as follows:

$$SMGRADE = \beta_0 + \beta_1(FMGRADE) + \beta_2(FMMODE) + \varepsilon \quad (1)$$

Where

SMGRADE = student’s grade in strategic management.
 FMGRADE = student’s grade in financial management.
 FMMODE = student’s mode of delivery for financial management (0 = on campus, 1 = online).
 Using a subset of the total sample,

$$AVFIGRADE = \beta_0 + \beta_1(FMGRADE) + \beta_2(FMMODE) + \varepsilon \tag{2}$$

Where:

AVGFIGRADE = student’s average grade in upper level finance classes
 FMGRADE = student’s grade in financial management.
 FMMODE = student’s mode of delivery for financial management (0 = on campus, 1 = online).

RESULTS AND DISCUSSION

Table 1 presents the descriptive statistics of the sample segregated by the two dependent variables. The mean grade in strategic management is higher than the average grade in upper level finance (2.731 versus 2.112), with a smaller standard deviation (0.043 versus 0.072). Furthermore, the mean grade in the foundational course of financial management is half a grade higher for the total sample than for the subset of students taking upper level finance (2.072 versus 1.578). Three hundred twenty students were surveyed; 195 registered for the lecture version of financial management, while 125 choose the online presentation. Of these students, 187 went on to take upper level finance courses, with 47% choosing the web version of financial management.

Table 1: Descriptive Statistics of Sample

Dependent Variable: Grade in Strategic Management (SMGRADE)						
	Mean	Standard Deviation	Median	Mode	Maximum	Minimum
SMGRADE	2.731	0.043	3	3	4	0
FMGRADE	2.072	0.067	2	2	4	0
FMMODE	0.391	0.028	0	0	1	0
Dependent Variable: Average Grade in Upper Level Finance (AVFIGRADE)						
	Mean	Standard Deviation	Median	Mode	Maximum	Minimum
AVFIGRADE	2.112	0.072	2	2	4	0
FMGRADE	1.578	0.010	2	0	4	0
FMMODE	0.471	0.037	0	0	1	0

This table presents the descriptive statistics of the sample.

The empirical results are used to predict student performance in a class subsequent to a foundational course and can be found in Table 2. Regardless of the dependent variable, it was found that the grade earned in the prerequisite was highly significant ($p < 0.01$) across both models. Thus, the grade earned in financial management was a strong predictor of the grade earned in both strategic management and upper level finance courses. According to the regression results, FMMODE was insignificantly related to student performance in strategic management. Hence, the mode of delivery of financial management did not seem to impact a student’s grade in strategic management: students that chose the web version of financial management fared as well as those that sat in the lecture hall. However, delivery was deemed a significant predictor of student performance in upper level finance courses ($p < 0.05$); a positive relation was observed. Students in the web version of financial management performed better (i.e., earned higher grades) in subsequent finance courses than those students enrolled in the lecture version of the prerequisite. The multiple regression models are both significant: $F = 25.43$ ($p < 0.01$) for the strategic management

dependent variable and $F = 46.07$ ($p < 0.01$) for the upper level finance dependent variable, even though the R^2 values for each model are not very high (0.138 and 0.334, respectively).

Table 2: Regression Results for Performance Subsequent

	SMGRADE	AVFIGRADE
constant	2.243 (23.21)***	1.266 (10.07)***
FMGRADE	0.236 (6.798)***	0.445 (9.516)***
FMMODE	-0.002 (-0.027)	0.309 (2.425)**
R^2	0.138	0.334
F	25.43***	46.07***
N	320	187

*This table presents the regression analysis results for performance subsequent. *, **, and *** indicates significance at 10%, 5% and 1% respectively.*

CONCLUDING COMMENTS

The academic performance of students enrolled in web-based classes has been a hot button topic for many years. Most of the research in this area has found there to be no significant difference between the performance of online students and those in the face-to-face version of the same class, while a few papers give classroom education the edge. However, studies examining the retention and application of knowledge after completion of an online course have been sparse; and, its results mixed. Thus, it was the purpose of this research to examine whether subsequent academic success was dependent upon the mode of delivery for a foundational course. At the university surveyed, financial management acts as a pre-requisite for strategic management, the college's capstone business course, as well as, upper level finance classes. A grade of "C" or above in financial management is necessary in order to enroll in another class for which it serves as a prerequisite. Online financial management is available each summer, while the lecture version, every semester (spring, summer, and fall). Thus, only summer sessions 2007-2013 were included. Regardless of the delivery method, the content of the financial management course remained the same. Three hundred twenty students were included in the sample; 195 registered for the lecture version of financial management, while 125 choose the online presentation.

Of these students, 187 went on to take upper level finance courses, with 47% choosing the web version of financial management. Multiple regression analysis tested the null hypothesis: students who took a foundational course online will not perform differently in a subsequent course than students who took the same foundational course on campus. The results showed that the presentation of the prerequisite did not seem to affect a student's grade in the capstone business course. However, students in the web version of financial management performed better (i.e., earned higher grades) in upper level finance courses than those students enrolled in the lecture version of the prerequisite. Unfortunately, a weakness of this study may be present due to a self-selection bias: upon registration, students had the option to choose their preference of course delivery. Students with strong academic skills and/or the ability to self-discipline may be more likely to choose the online format; students with poor study skills would prefer the lecture version with the presence of an instructor to "stay on track." Furthermore, high achieving students are more likely to perform well in subsequent courses, regardless of the presentation. Thus, future research in this area could explore more variables that influence student performance, such as student ACT scores, overall GPA, gender, age, or time devoted to assignments.

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FIRST YEAR ACCOUNTING STUDENTS' PERCEPTIONS OF BLENDED LEARNING

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ABSTRACT

The purpose of this study is to use student-related variables to examine their impact on students' perception of the integration of face-to-face and blended learning experience and students' learning outcomes. This study uses survey questionnaires at the beginning and end of semester. The data analysis consists of (1) a paired sample t-test and (2) a partial least squares model to analyze the effect of student-related variables on student perceptions on the integration of blended learning at the beginning and end of semester and their learning outcomes, over the three year study period. Students' perceptions at the outset were found to be important in their view of the subject and the learning experience they will enjoy. The learning experience throughout the semester affects the students' perceptions on blended learning at the end of the semester and their perceived performance in both mid and final exams. No relationship was found between prior accounting knowledge and blended learning however a positive relationship was found between prior computer knowledge and blended learning. This study provides empirical evidence of the benefits of adopting blended learning in a first year accounting subject. These findings have implications for accounting educators who can use this knowledge to motivate students to engage in blended learning and improve their learning outcome irrespective of their prior knowledge.

JEL: I20, I29, M10

KEYWORDS: Blended Learning, First Year Accounting, Experiential Learning Theory, Student Learning Outcomes

INTRODUCTION

Over the past three decades, debates have focused on what sort of teaching environment encourages effective learning (Prosser and Trigwell, 1999; Trigwell *et al.*, 2000; Ramsden, 2003; Devlin and Samarawickrema, 2010; Apostolou *et al.*, 2013). Today, many educators are faced with the challenge of delivering a quality learning experience to increasing student numbers with limited resources (Nunan *et al.*, 2000; Dowling *et al.*, 2003). In response to this, a blended learning approach has been proposed as an alternative learning model into tertiary courses (Tinker, 2002). A blended learning environment integrates traditional face-to-face delivery with digital and online facilities (Garrison and Kanuka, 2004). It is assumed that students learning outcomes would improve as this approach involves some form of student control over time (Singh and Reed, 2001; Bath and Bourke, 2010).

Despite calls for the adoption of blended learning by higher education institutions, there has been little empirical evidence to show that this kind of learning environment is beneficial to students who undertake the first year introductory accounting subject as part of their Commerce degree. In a UK study, Basioudis and de Lange (2009) found that the use of a web-based learning environment (Blackboard) motivated student participations in the Introduction to Financial Accounting course. However, Palm and Bisman (2010) concluded that Australian universities still predominantly adopt the traditional face-to-face approach to teaching introductory accounting courses, with limited adoptions of innovative delivery modes. On the

other hand, studies comparing traditional and blended learning approaches on teaching accounting courses have shown mixed results in terms of student outcomes (Dowling, *et al.*, 2003; Jones and Chen, 2008; Keller, *et al.*, 2009; Du, 2011). In the field of non-accounting studies, an increasing body of research has focused on university students' experience of blended learning in such areas as engineering (e.g., Ellis *et al.*, 2008), political science (e.g., Bliuc, *et al.*, 2010), social work (e.g., Ellis *et al.*, 2006), and a foreign policy course of an Australian university (Bliuc, *et al.*, 2010). Using both qualitative and quantitative analyses, Bliuc, *et al.* (2010) examined students' perceptions on the integration of face-to-face and blended learning experience and found that the quality of perceived integration (i.e., integrated perceptions *versus* less integrated perceptions) affected students' academic performance (i.e., final exam results).

However, prior literature has not considered the important factor of student-related variables that may influence students' perceptions on the integration of face-to-face and blended learning experience and their academic performance. These variables include prior computing experience and prior accounting knowledge. Stoner (1999) found that students' information technology (IT) skills on entry to an UK university were rising but urged accounting educators not to assume that all students are comfortable and familiar with IT. In a more recent analysis of UK students' IT application skills on entry to university, Stoner (2009) found that overall their skills had continued to improve between 1996 and 2006, however there were major differences within cohorts. In an Australian study, Kennedy *et al.*, (2008) found that first year students' use of IT was not universal. Therefore, it is important to consider the effect of this variable on students' learning experience in a blended learning environment.

In terms of prior accounting knowledge, researchers (e.g., Alexander *et al.*, 1994, Halabi, 2009) have argued that it is one of the most important factors in determining the extent that learning occurs in individuals. However, research studies to date have shown inconsistent findings in accounting studies, with Eskew and Faley (1988), Rankin *et al.*, (2003), Byrne and Flood (2008), and Halabi (2009) found a positive relationship between prior study of accounting and performance in the first year accounting subject, while no significant association is reported in Bergin (1983), Keef (1992), and Koh and Koh (1999). With the introduction of a blended learning environment, it is timely to examine whether prior accounting knowledge has an effect on students' perceptions on the integration of face-to-face and blended learning experience and their academic performance.

The purpose of this study is to use student-related variables to examine how they impact on students' perception of the integration of face-to-face and blended learning experience and students' learning outcomes over a three-year period. Findings of this longitudinal study may have important implications for accounting educators and university policy makers in course design. The remainder of this paper is organized as follows. The next section provides theoretical context for the study by drawing on prior literature to develop a research question concerned with how student-related variables impact on the perceptions of integration of blended learning and their learning outcomes. The research method will then be outlined, followed by a presentation of the study's findings. The paper concludes with a discussion of the study's implications, limitations and a suggestion for further research.

LITERATURE REVIEW

Ramsden (2003) suggests that learning outcomes are a function of individuals' approach to learning. A student's approach to learning is in itself a function of his/her perception of task requirements, made up of both the student's orientation to studying and the context of learning (Pacharn, *et al.*, 2013). By modifying the context of learning, learning outcomes can be influenced by affecting how students perceive their tasks and how they approach their studies, and therefore their performance outcomes (Koh and Koh, 1999; De Lange, *et al.*, 2003; Potter and Johnston, 2006). In his seminal work on experiential learning, Kolb (1984) proposes, "learning is a process whereby knowledge is created through the transformation of experience" (p.41) and proposes a four-stage learning cycles: concrete experience, reflective observation, abstract

conceptualization, and active experimentation. In the first stage of the learning cycle, students would rely on the experience (feelings) and their ability to adapt to changes. In the second stage of the cycle, students would reflect on the experience (watching). In the third stage of the cycle, students would use theories (from lectures) rather than feelings to solve problems (thinking). In the final stage of the learning cycle, students would try out what has been learnt (doing).

In terms of experience, prior research has shown that first year accounting students' IT experience has been on the rise (see, for example, Stoner 1999 and 2009). However, some researchers also find that students' IT experience is not universal (Kennedy, *et al.*, 2008). Bennett, *et al.*, (2008) suggest that there is little empirical basis for the arguments about the effect of IT on students' approach to the traditional face-to-face teaching and learning. In their research project, Hardy *et al.*, (2009) concludes that the inclusion of IT by universities in their programs should be done with consideration of students' perceptions on technology.

Salmon's (2011) proposes a five-stage model of e-learning, which describes students' experience specifically in an online environment. The five stage model is based on activities that will occur at each of the stages of learning: (1) access and motivation, (2) online socialization, (3) Information exchange, (4) knowledge construction, and (5) development. Applying Salmon's (2011) model, the five stage e-learning model for the study include the following: stages 1, 2 and 3 focus on ensuring that students have access to the learning system, where to find technical support, how the learning environment works, and online networking and socializing via discussion board, discussion forum, and e-mail. The last two stages provide the structures and activities for students to complete the course requirements. Students are encouraged to use a range of online activities to support their learning process and take control of their own learning.

To undertake the research, we make changes in course design to reflect a blended learning environment in Accounting Principle, a first year accounting course at a major Business School in Australia. Traditionally, this course had been taught in a conventional mode of a two-hour lecture, and one-hour tutorial with assessment generally incorporating an assignment, a mid-semester and final exams. We were driven to reconsider our teaching approach and delivery modes due to our increasing concerns about the growing reduction in student attendance at weekly tutorials, and the number of students not completing the set weekly tutorial questions. Therefore, the overall rationale for introducing a blended learning environment to Accounting Principles was to increase student classroom attendance, promote student-centered learning and encourage increased student interaction and engagement. It was also expected that this would result in improved student performance and satisfaction with the course with a flow-on in terms of student retention in the accounting major.

The blended learning approach adopted involved the incorporation of an online computerized accounting package (My Accounting Lab) into the curriculum. The software consists of practical, multiple choice and true/false questions based on the learning objectives from each chapter of the prescribed textbook. It gives student instant feedback on whether their answers are correct and where they have gone wrong in answering questions. A holistic approach was embraced with the computerized online package integrated into the teaching resources and assessment tasks.

The traditional tutorial was changed to be an interactive two-hour workshop where students worked through questions set from the online computer package and textbook. Weekly My Accounting Lab homework computer exercises were set for students to complete in their own time and formed part of their assessment tasks. The mid-semester and final exams were written in a style largely consistent with the style used in the computerized package so that the application of skills and knowledge developed throughout the course was progressive leading into these assessment tasks. With the introduction of a face-to-face traditional teaching method with a blended learning environment, our research questions is: how do student-related variables, including prior accounting knowledge and prior computing experience, impact on students' perceptions of integration of blended learning, and their learning outcomes?

METHODOLOGY

This study uses two survey questionnaires: beginning and end of semester surveys. The beginning of semester survey consisted of three sections: student background, student experience and student opinions. The first section incorporated seven questions relating to demographic information including student number, age, gender, nationality, main language spoken at home, highest education level achieved, and the students' planned major. The second section included questions that appraised students' prior accounting and computing experience. Students were asked, on a seven point scale ranging from "1" (not at all) to "7" (to a large extent), the extent of computer use for social networking, twitter, email, spread sheeting, graphics/digital imaging and music (Kennedy *et al.*, 2008). Based on an adapted version of Marriott and Lau's (2008) questionnaire, students were also asked to rate, on a seven point scale ranging from "1" (poor) to "7" (excellent), their computing skills and accounting knowledge. Additionally, students were asked on a scale ranging from "1" (not at all) to "7" (to a great extent), their prior use of formal accounting packages, online programs to aid learning, their preference for being assessed online rather than by traditional paper-based methods, and preference to a mixed approach to assessment (i.e., both online and paper-based assessment). The third section of the pre-survey was adapted from Palm and Bisman (2010) and assessed students' perceptions on whether integration of a blended learning environment would improve their performance in the course, motivate them to take responsibility for their own learning, and help them to develop comprehension, technical knowledge and broaden their interest in accounting on a seven point scale ranging from "1" (not at all) to "7" (to a great extent).

The end of semester questionnaire also consisted of three sections. The first section incorporated questions relating to changes in students' majors and the reasons why a change may have occurred. The second and third sections asked the same questions as the equivalent numbered sections on the beginning of semester survey. The second section covered students' learning experiences at the conclusion of the course concerning rating their computer skills and accounting knowledge. The third section appraised students' perceptions on the blended learning environment and their perceived improvement in academic performance. All questions were rated on a seven-point scale ranging from "1" (not at all) to "7" (to a great extent). Additionally, since prior research (see, for example, Pacharn *et al.*, 2013) found that a flexible learning approach appeared to improve student academic performance, data on students' performance on a selection of assessment tasks were included in the analysis.

The course assessment items included: a mid-semester exam (20%), career development assignment (10%), weekly online computer quizzes (10%), a practice set group assignment (20%), and a final exam (40%). Consistent with Bliuc *et al.* (2010), only the performance at the mid-semester and final exams was included in the analysis. Pilot tests of both the beginning and end-of-semester surveys were conducted with six academic staff involved in teaching Accounting Principles, and six undergraduate accounting students. Their purpose was to identify potential problems associated with the ambiguity of the questions, and the appropriateness of the scales. Students enrolled in Accounting Principles were surveyed in the first (beginning of semester) and the final (end of semester) lectures across three years on two campuses (designated as Campus 1 or 2) at a large Australian university. A breakdown of the completed surveys received from the two campuses is provided in Table 1. Of the students enrolled in the course, a total of 314 matched surveys were received. This equates to a response rate of 33.9%. The same academic, adopting the same course profile, textbooks and assessment structure, conducted each year's study. While the questions in the mid-semester and final exams differed from year to year, the topics examined and types of questions were consistent. Data analysis was conducted on the entire sample ($n = 314$), with further testing undertaken on each of the years as sub-samples to test for differences across time.

Table 1: Breakdown of Survey Questionnaire Responses

	Beginning of Semester		End of Semester		Total Participants	
	Campus 1	Campus 2	Campus 1	Campus 2	Campus 1	Campus 2
2009						
Students enrolled					119	214
Survey completion	101	152	87	100		
Matched sample					81	66
2010						
Students enrolled					112	183
Survey completion	95	103	46	61		
Matched sample					24	31
2011						
Students enrolled					124	174
Survey completion	127	114	91	109		
Matched sample					49	63
Total Matched Sample (n = 314)					154	160

This table shows the breakdown of the survey responses received. The column labelled BEGINNING OF SEMESTER shows the number of surveys completed at the start of the survey period for each of the three years in which the survey was conducted and indicates the responses by campus. The column labelled END OF SEMESTER is the same but shows the survey responses at the end of the survey period. Finally, the column labelled TOTAL PARTICIPANTS shows by campus the number of students enrolled and the number of students for whom we received a survey response at the beginning and at the end of semester which were then matched.

A summary of the main demographic data of the sample is presented in Table 2. The average age of students was just over 20 years. The gender of the sample was fairly evenly split between females and males (49% were female and 51% were male), with almost half of the students of Australian nationality (49%) and 68% of students having completed Year 12. The majority of students were undertaking an accounting major (Beginning – 50% and End – 51.6%) with the finance major being second most popular (pre – 18.5% and post – 19.4%). Prior computing experience (PCE) was measured by eight items that included the six-item instrument adapted from Kennedy, *et al.*, (2008), one item adopted from Marriott and Lau (2008), and one item that measured the extent to which students have used online computer programs in their previous learning. The descriptive statistics of the nine items are presented in Table 3.

A confirmatory factor analysis with varimax rotation of the nine items yielded three factors with eigenvalues greater than one (1.692, 1.592 and 1.333, respectively). Three items (use of spread sheeting, email, and computer skills rating) loaded on factor one, PCE1. The Cronbach’s alpha value was 0.632 suggesting reliability of the scales. The other two factors consisted of two items so were therefore not included in any further analysis. The factor scores for the PCE1 variable were used in further analysis. One item did not load on any factors: ‘extent of previous use of online computer programs to aid learning’. It was decided to include this item in the further analysis, as it is directly relevant to this study because it measures students’ previous use of computing experience (PCE2). Prior accounting knowledge (PAK) was measured using three items, two of which that were adapted from Marriott and Lau (2008) and asked students their level of accounting knowledge. The third item measured students’ familiarity with formal accounting packages such as MYOB or QuickBooks. The descriptive statistics of the three items are presented in Table 3. A confirmatory factor analysis with varimax rotation of the three items yielded one factor with an eigenvalue greater than one and a Cronbach’s alpha of 0.812. The factor scores for PAK were used in further analysis.

Table 2: Sample Descriptive Statistics

Descriptive Characteristics		Sample (N = 314)
Age	Mean	21.33 years
	Minimum	16 years
	Maximum	42 years
	Standard deviation	5.11
	Skewness	2.06
Gender	Female	155 (49.4%)
	Male	159 (50.6%)
Nationality	Australian	156 (49.7%)
	Chinese	21 (6.7%)
	Other	137 (43.6%)
Education level	Year 12	215 (68.5%)
	Diploma	77 (24.5%)
	Degree	19 (6.1%)
Beginning of semester-Major	Accounting	157 (50%)
	Finance	58 (18.5%)
	Economics	17 (5.4%)
	Double major	27 (8.6%)
	Other	7 (2.2%)
End of semester-Major	Undecided	48 (15.3%)
	Accounting	162 (51.6%)
	Finance	61 (19.4%)
	Economics	21 (6.7%)
	Double major	36 (11.5%)
	Other	11 (3.5%)
	Undecided	23 (7.3%)

This table shows the descriptive statistics for the demographic data of the total sample used in this study. The mean, minimum and maximum, standard deviation and skewness have been calculated for each of the demographic variables of age, gender, nationality, education level at commencement of the students' degree, the major the student is completing at the beginning of the course and the major being completed at the end of the degree.

Perceptions on blended learning (PBL) was based on an adapted version of Palm and Bisman's (2010) five item instrument and assessed students' opinion in regard to the extent an online learning package would be beneficial to their learning, give immediate feedback, motivate to take responsibility for their own learning, support their learning style, and motivate them to be an active participant. The descriptive statistics of the three items are presented in Table 3. Two confirmatory factor analyses with varimax rotation of the five items (beginning and end of semester, respectively) yielded one factor with an eigenvalue greater than one for perceptions at the beginning of semester (BPBL) and one factor for perceptions at the end of semester (EPBL). The Cronbach's alpha for BPBL was 0.894 and 0.912 for EPBL, suggesting reliability of both scales. Following Bliuc, *et al.* (2010), students' learning outcomes were measured using each student's mid-semester and final exam results. As these two assessment pieces were undertaken individually and in an invigilated exam environment, it was felt that exam results were the most objective indicator of an individual student's performance.

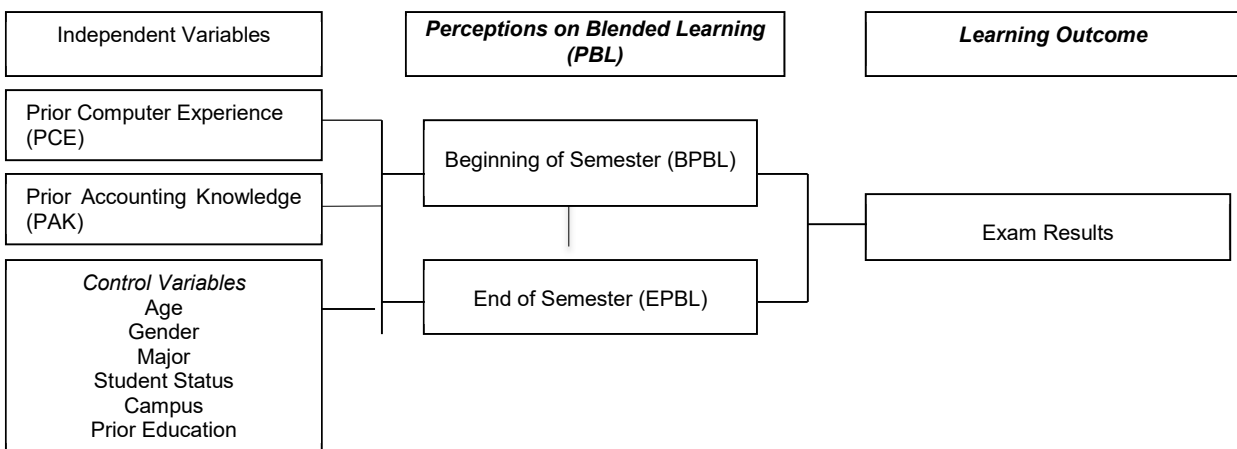
Apart from PCE and PAK, there are a number of factors that may influence students' perceptions on the integration of blended learning and their learning outcomes. These factors may include age, gender, program major, student status (domestic *versus* international), and prior education. These variables are treated as control variables. AGE variable was measured as a students' age in years. GENDER was coded as "1" for female and "2" for male. Student status (STATUS) was coded as "1" for domestic students and "2" for International students. The selected major (MAJOR) at the beginning of the semester was coded as "1" for an accounting major, and "2" for all other majors and undecided. CAMPUS was coded "1" for Campus 1 and "2" for Campus 2. The level of prior education (EDUC) was coded as "1" for completed Year 12, "2" for completed a diploma or certificate, and "3" for a previous non-accounting degree. The framework of this study is presented in Figure 1.

Table 3: Descriptive Statistics of PCE, PAK, BPBL, and EPBL Items

Items	Min.	Max.	Mean	Standard Deviation	Skewness
Prior Computer Experience (PCE) items:					
How would you rate your computing skills?	1	7	5.00	1.26	-0.52
To what extent to you use the computer for:					
(a) social networking e.g. Facebook	1	7	5.22	1.78	-1.02
(b) twitter	1	7	1.76	1.58	2.10
(c) email	1	7	5.90	1.23	-1.19
(d) spread sheeting e.g. Excel	1	7	4.08	1.69	-0.11
(e) graphics/digital imaging	1	7	3.11	1.80	0.39
(f) music	1	7	5.33	1.69	-0.89
To what extent have you used a blended computer program to aid learning?	1	7	3.67	1.76	0.04
Prior Accounting Knowledge (PAK) items:					
How would you rate your level of accounting knowledge?	1	7	3.63	1.38	-0.10
How would you rate your practical experience in accounting?	1	7	3.07	1.54	0.34
How familiar are you with formal accounting packages? (e.g. MYOB/QuickBooks)	1	7	2.74	1.68	0.64
Perception of Blended Learning at the beginning of the semester (BPBL) items:					
To what extent will on blended learning package:					
(a) be beneficial to your learning in this course?	1	7	4.80	1.31	-0.28
(b) give you immediate feedback of your understanding in this course?	1	7	5.20	1.24	-0.34
(c) motivate you to take responsibility for your own learning?	1	7	4.96	1.34	-0.54
(d) support your learning style?	1	7	4.80	1.43	-0.42
(e) motivate you to be an active participant in the learning process?	1	7	4.72	1.38	-0.39
Perception of Blended Learning at the end of the semester (EPBL) items:					
To what extent will on blended learning package:					
(a) be beneficial to your learning in this course?	1	7	5.15	1.47	-1.03
(b) give you immediate feedback of your understanding in this course?	1	7	5.37	1.31	-0.90
(c) motivate you to take responsibility for your own learning?	1	7	5.10	1.50	-0.87
(d) support your learning style?	1	7	4.93	1.43	-0.78
(e) motivate you to be an active participant in the learning process?	1	7	5.10	1.38	-0.93

This table presents the descriptive statistics for the variables of prior computer experience (PCE), prior accounting knowledge (PAK), perception of blended learning at the beginning of the semester (BPBL) and perceptions of blended learning at the end of the semester (EPBL). The minimum and maximum, mean, standard deviation and skewness are reported for each of the items loading on the variable.

Figure 1: Research Framework of the Study



This figure shows the framework for this study indicating that independent variables of prior computer experience, prior accounting knowledge and the control variables of age, gender, major, student status, campus, and prior education will influence the students' perception on blended learning in this course both at the beginning and at the end of the semester of study. The student's perception of blended learning as a learning method will influence the students learning outcome measured as exam results.

ANALYSIS OF FINDINGS

Results of the paired sample *t*-tests are presented in Table 4. For each question, the students' responses at the beginning and end of semester were compared and tested for any significance differences. Overall, nine of the sixteen comparisons were found to be significantly different. Specifically, students rated their computer skills and level of accounting knowledge significantly higher after the blended learning approach was completed ($t = -5.501$; $p < 0.001$ and $t = -19.593$; $p < 0.001$, respectively). Significant differences were found on the questions in regard to students' perceptions on blended learning being beneficial to their learning and motivating them to be an active participant ($t = -3.54$; $p < 0.001$ and $t = -3.799$; $p < 0.001$, respectively). This suggests that after experiencing the blended learning environment, students viewed it as more beneficial to their learning and motivating them to participate in their learning. Additionally, students considered blended learning would allow them to develop greater comprehension of basic accounting ($t = -2.667$; $p < 0.01$), provide immediate feedback ($t = -1.767$; $p < 0.05$), enable application of accounting knowledge ($t = -1.998$; $p < 0.05$), assist their understanding of procedures, terms and principles of accounting ($t = -3.332$; $p < 0.01$), and enable greater understanding of the conceptual significance of accounting ($t = -3.098$; $p < 0.01$). Students did not have higher expectations after experiencing the online learning program that it would improve their performance in the mid-semester exam, final exam and their overall grade.

Table 4: Paired Sample *t*-tests of Beginning and End of Semester Response Items

Item	T-Value	P (One Tailed)
1 Rate computing skills	-5.501*	0.000
2 Rate level of accounting knowledge	-19.593*	0.000
7 Prefer to be assessed blended rather than traditional methods	-0.696	0.243
8 Prefer a mixed approach to assessment	0.856	0.197
View blended learning program as:		
9a Beneficial to learning	-3.54*	0.000
9b Provide immediate feedback	-1.767*	0.039
9c Motivate to take responsibility for learning	-1.33	0.093
9d Support learning style	-1.448	0.075
9e Motivate to be an active participant	-3.799*	0.000
View blended learning program will:		
11a Provide technical knowledge	0.431	0.333
11b Develop comprehension of basic accounting	-2.667*	0.004
11c Enable application of accounting knowledge	-1.998*	0.024
11d Broaden interest in accounting	-1.567	0.059
11e Enable to judge value of accounting information	-0.617	0.269
11f Assist understanding of procedures, terms and principles of accounting	-3.332*	0.000
11g Enable understanding of conceptual significance of accounting	-3.098*	0.001
View blended learning program will improve performance in:		
10a Mid-semester exam	-1.173	0.121
10b Final exam	0.208	0.418
10c Overall grade	-1.108	0.135

This table presents the results of the paired sample *t*-tests. For each question, the students' responses at the beginning and end of semester were compared and tested for any significance differences. *** $p < 0.10$ ** $p < 0.01$, * $p < 0.05$

A PLS model was used in this study to explore the relationships between the variables, and is described by two models: (1) a measurement (or outer) model relating manifest variables or observed variables to their own latent variable; and (2) a structural (or inner) model relating latent variables to other latent variables (Tenenhaus, *et al.*, 2005). The measurement model can use formative or reflective indicators. As this study only includes reflective indicators, model validation was conducted following the two phase approach outlined in Chin (2010) by firstly, assessing the reliability and validity of the measurement model and secondly, assessing the validity and results of the structural model. The quality of the measurement models were assessed in terms of their unidimensionality, internal consistency, indicator reliability, convergent validity and discriminant validity (Henseler, *et al.*, 2009). Results of this analysis are presented in Table 5.

Individual item’s reliability and unidimensionality were examined by factor loadings with all factor loadings greater than 0.50 and all significant at $p < 0.05$ (Hulland, 1999). Internal consistency was assessed using Cronbach’s Alpha ($C\alpha$) and composite reliability (CR) (Werts, *et al.*, 1974). All CRs are above the minimum threshold value of 0.70 (ranging from 0.78 to 0.93) (Chin, 1998; Hair *et al.*, 2010), and $C\alpha$ values are all above 0.60 (ranging from 0.63 to 0.91), demonstrating acceptable reliability (Nunnally, 1978). Average variance extracted (AVE) was calculated to assess the convergent and discriminant validity of the latent variables. All AVEs are greater than 0.50 (ranging from 0.55 to 0.74) which suggests convergent validity (Fornell and Larcker, 1981; Henseler *et al.*, 2009). Each AVE is greater than the squared correlation coefficient of its latent variable, which indicates that each variable shares more variance with its indicators than any other latent variable suggesting adequate discriminant validity (Fornell and Larcker, 1981). In addition, the cross loadings (analyzed but not shown in the paper) for each indicator are greater for their related latent variable than any other variable, providing further evidence of discriminant validity (Chin, 1998). Overall, these results suggest that each latent variable exhibits satisfactory reliability and validity.

Table 5: Inter-Construct Squared Correlations and Reliability Measures

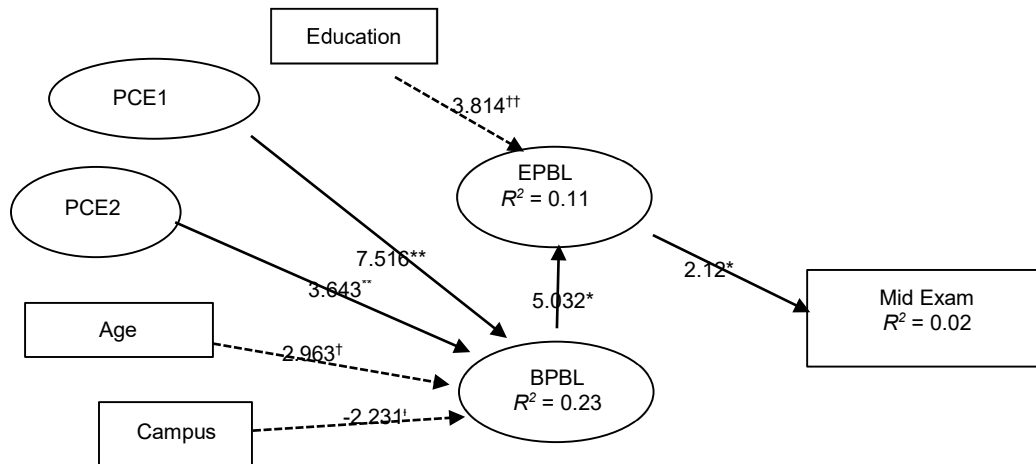
CA	CR	AVE	VARIABLES	PCE1	PAK	BPBL	EPBL	PCE2	MEX	FEX	AGE
0.63	0.78	0.55	PCE1	1.00	0.31**	0.37**	0.14*	0.16*	0.03	0.09	0.14*
0.81	0.84	0.67	PAK	0.09	1.00	0.13*	-0.01	0.08	0.06	0.06	-0.11
0.89	0.92	0.70	BPBL	0.14	0.02	1.00	0.13*	0.26**	0.04	0.06	0.19**
0.91	0.93	0.74	EPBL	0.02	0.00	0.02	1.00	0.17**	0.10	0.07	0.16**
			PCE2	0.02	0.01	0.07	0.03	1.00	-0.02	0.07	0.08
			MEX	0.00	0.00	0.00	0.01	0.00	1.00	0.64**	-0.02
			FEX	0.00	0.00	0.00	0.00	0.00	0.41	1.00	0.08
Descriptive Statistics:					Mean			3.67	30.84	45.98	21.33
					Minimum			1	2.80	0.00	16
					Maximum			7	40	75	42
					Standard deviation			1.76	7.45	14.72	5.11
					Skew			0.04	-1.26	-0.64	2.06

*This table presents the results of the assessment of the quality of the measurement models in terms of their unidimensionality, internal consistency, indicator reliability, convergent validity and discriminant validity. Pearson’s correlation coefficients are presented above the diagonal in the top panel and squared correlation coefficients are presented below the diagonal. *** $p < 0.10$, $p < 0.01$, * $p < 0.05$ (two-tailed). Where: $C\alpha$ = Cronbach’s Alpha; CR = composite reliability; AVE = average variance extracted; PCE1 = prior computer experience; PAK = prior accounting knowledge; BPBL = perceptions on blended learning at the beginning of semester; EPBL = perceptions on blended learning at the end of semester; PCE2 = prior use of blended learning program; MEX = mid-semester exam; FEX = final exam; AGE = age.*

The structural model was used in testing the proposed relationships between the theoretical constructs as depicted in Figure 2. As the objective of PLS is to maximize the variance explained rather than model fit, R^2 is used to evaluate the structural model (Chin, 1998), as well as the Stone-Geisser test for predictive relevance Q^2 statistic (Stone, 1974; Geisser, 1975; Fornell and Cha, 1994). Results (Table 6) indicate that 23% of the variance in BPBL, 11% of EPBL, and 2% of a students’ mid-semester exam mark is explained by the full model, whereas 24%, 13% and 1% of the variance in BPBL, EPBL and the final exam mark are explained respectively in the final exam model. The measure of the predictive ability of the full model, Stone-Geisser’s Q^2 statistic is 0.75 (for both models). Chin (2010) argues that a Q^2 greater than 0.50 is indicative of a predictive model. The significant paths and variables are displayed in Figure 2 for the mid-semester exam model and Figure 3 for the final exam model. While the same path coefficients are significant in both the mid-semester exam and the final exam models, the t -statistics are slightly different between the two models. The results show a positive relationship between prior computer experience and BPBL in the mid semester exam model ($\beta = 0.367, t = 7.516, p < 0.01$) and the final exam model ($\beta = 0.386, t = 7.914, p < 0.01$), and prior use of an online program to aid learning for both mid semester and final exam models ($\beta = 0.186, t = 3.643, p < 0.01$; and $\beta = 0.186, t = 3.733, p < 0.01$, respectively), but no relationship

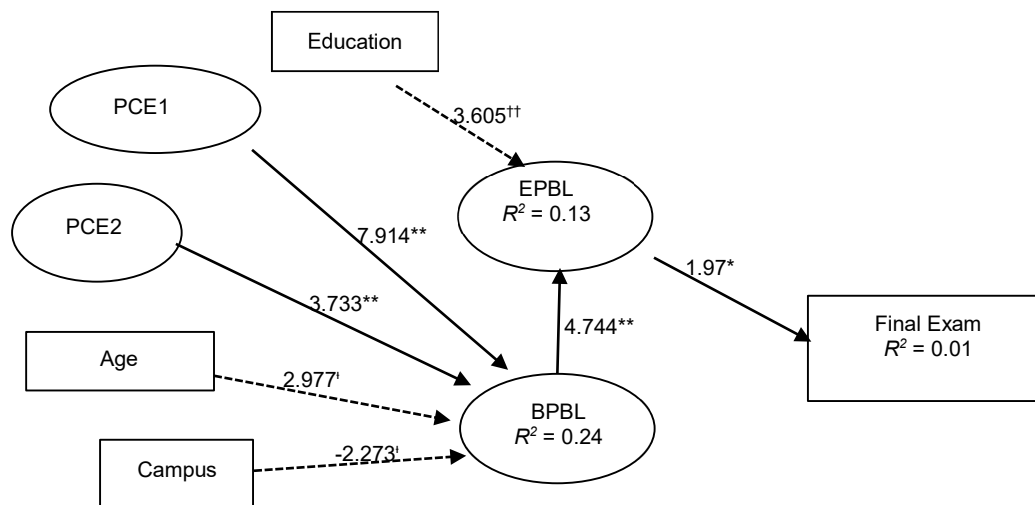
with EPBL. Prior accounting knowledge was found not to have an impact on BPBL and EPBL. Students' BPBL is positively related to their EBPL in the mid semester ($\beta = 0.270, t = 5.032, p < 0.01$) and final exam ($\beta = 0.270, t = 4.744, p < 0.01$). Additionally significant paths were noted suggesting that a students' perceptions on blended learning at the end of the semester is positively related to their performance in the mid semester ($\beta = 0.108, t = 2.124, p < 0.05$) and final exams ($\beta = 0.083, t = 1.965, p < 0.05$).

Figure 2: PLS Structural Model for Mid-Semester Exam (with Significant Paths)



This figure depicts the structural model used in testing the proposed relationships between the theoretical constructs and the significant paths and variables for the mid-semester exam. *** $p < 0.10$, ** $p < 0.01$, * $p < 0.05$ (one-tailed); †† $p < 0.01$, † $p < 0.05$ (two-tailed). $n = 314$. A solid arrow signifies a hypothesized path; dashed arrow signifies a control variable path. Where: PCE1 = prior computer experience; PCE2 = prior use of blended learning program; BPBL = Perceptions on blended learning at the beginning of semester; EPBL = Perceptions on blended learning at the end of semester; AGE = age; CAMPUS = campus.

Figure 3: PLS Structural Model for Final Exam (with Significant Paths)



This figure depicts the structural model used in testing the proposed relationships between the theoretical constructs and the significant paths and variables for the final exam. ** $p < 0.01$, * $p < 0.05$ (one-tailed); †† $p < 0.01$, † $p < 0.05$ (two-tailed). $n = 314$. A solid arrow signifies a hypothesized path; dashed arrow signifies a control variable path. Where: PCE1 = prior computer experience; PCE2 = prior use of blended learning program; BPBL = Perceptions on blended learning at the beginning of semester; EPBL = Perceptions on blended learning at the end of semester; AGE = age; CAMPUS = campus. *** $p < 0.10$, ** $p < 0.01$, * $p < 0.05$ (one-tailed); †† $p < 0.01$, † $p < 0.05$ (two-tailed). $n = 314$. A solid arrow signifies a hypothesized path; dashed arrow signifies a control variable path. Where: PCE1 = prior computer experience; PCE2 = prior use of blended learning program; BPBL = Perceptions on blended learning at the beginning of semester; EPBL = Perceptions on blended learning at the end of semester; AGE = age; CAMPUS = campus; Education = previous highest education level achieved.

Table 6: Significant Path Coefficients, *T*-Statistics and *R*²

Paths:	Mid Semester Exam	Final Exam
PCE1 → BPBL	0.367 (7.516)**	0.386 (7.914)**
PCE2 → BPBL	0.186 (3.643)**	0.186 (3.733)**
BPBL → EPBL	0.270 (5.032)**	0.270 (4.744)**
EPBL → Exam	0.108 (2.124)*	0.083 (1.965)*
Age → BPBL	0.127 (2.963)††	0.127 (2.977)††
Campus → BPBL	-0.110 (2.230)†	-0.110 (2.273)†
Education → EPBL	0.171 (3.814)††	0.171 (3.605)††
BPBL <i>R</i> ²	23.3%	24.1%
EPBL <i>R</i> ²	11.4%	12.9%
Exam <i>R</i> ²	2.1%	1.4%

*This table 6 presents the results of the structural equation model and indicate that 23% of the variance in BPBL, 11% of EPBL, and 2% of a students' mid-semester exam mark is explained by the full model, whereas 24%, 13% and 1% of the variance in BPBL, EPBL and the final exam mark are explained respectively in the final exam model. n = 314. Each cell reports the path coefficient (t-value). *** p < 0.10, ** p < 0.01, * p < 0.05 (one-tailed); †† p < 0.01, † p < 0.05 (two-tailed).*

CONCLUSION

The aim of this study is to use student-related variables to examine their impact on students' perception of the integration of face-to-face and blended learning experience and students' learning outcomes. This study uses survey questionnaires at the beginning and end of semester. The data analysis consists of (1) a paired sample *t*-test and (2) a partial least squares model to analyze the effect of student-related variables on student perceptions on the integration of blended learning at the beginning and end of semester and their learning outcomes, over the three year study period. The study found that there is no relationship between prior accounting knowledge and perceptions on blended learning. This finding fails to support research in the accounting literature showing that prior knowledge is an important learner attribute (Halabi, 2009). Further, it was found that although prior computer experience is positively related to perceptions on blended learning at the beginning of semester, it is not related to perceptions on blended learning at the end of semester. This is illustrated by the significant bivariate correlations between prior computer experience and BPBL and EPBL. As BPBL is also significantly correlated with EPBL, it is feasible that the shared variance between prior computer experience and BPBL and EPBL is consumed by the stronger relationship between prior computer experience and BPBL, thereby in a multivariate setting it has been found that prior computer experience is not related to EPBL.

The positive relationship between BPBL and EPBL suggests that students' perceptions at the outset are important in their view of the subject and the learning experience they will enjoy. The learning experience throughout the semester affects the students' perceptions on blended learning at the end of the semester and their perceived performance in both mid and final exams. The control variables of age and campus are positively related to BPBL. This supports previous findings relating to age, and can be seen to lend weight to the argument that younger students are more computer literate and see blended learning as a positive environment to assist their learning and improve their learning outcomes. Some inconsistency is noted in BPBL across campuses and requires further research. Students with a higher education levels are noted as having a more positive relationship with EBPL. It is suggested that their prior knowledge of the educational process influenced their perceptions and helping them embrace the learning environment in a positive way. It is also interesting that gender was not a significant control variable lending support to the changing gender balance in modern education. These findings have some implications for accounting educators involved in

teaching first year accounting course. Students rate their computer skills and accounting knowledge significantly higher after the integration of blended learning with the traditional face-to-face approach. Students perform better where they have a positive integration experience and learning outcome. Accounting educators can use this knowledge to motivate students to engage in blended learning and improve their learning outcome irrespective of their prior knowledge. Students who undertake a first year accounting subject can be assured of a positive outcome where they have a positive attitude to the blended learning process. This study is not without limitations. For example, the study was restricted to three years and conducted at two campuses of one university. The generalizability of the results beyond this sample therefore needs to be interpreted with care. In addition, it is recognized that the quantitative nature of the study may fail to capture the complexities of student learning and their perceptions on blended learning. Further research may incorporate both quantitative and qualitative (such as semi-structured interviews) into this kind of study and compare the results from first year accounting with other accounting subjects and other business subjects.

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CAN ASSESSMENT IMPROVE HOW PERSONAL FINANCE IS TAUGHT?

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ABSTRACT

This research finds the delivery of personal finance education varies. Often national and local providers carry out this education by using providers ranging from salespeople to not-for-profits. Each entity brings its own motivation and objective. As a result, the delivery model for financial education varies and lacks coordination leading it to be ineffective and inefficient. By understanding the motivators and goals of both providers and learners this study recommends a collaboration of efforts. This collaboration encourages national providers to focus less on curriculum development and more on improving the educational practices. Local providers are then able to provide education based on client needs. At the national and local level providers should engage in more assessment. This research contributes to current literature by reinforcing that planning and coordination of personal finance curriculum is important. It finds the need to value and respect each stakeholder is key to long-term success. It also encourages all parties to improve their efforts by managing change.

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KEYWORDS: Personal Finance, Innovative Education, Change Management, Assessment

INTRODUCTION

The financial world today is more complex than just a few years ago. A generation ago, understanding simple banking products like a checking and savings account would have been enough to manage one's personal finances. According to Alan Greenspan (2003), today's consumers must be able to distinguish between a wide range of products, services, and providers of financial products. Credit card debt is occurring at a younger age, resulting in the need for a more comprehensive understanding of credit. This includes understanding the impact of compounding interest on debt balances and the implications of mismanagement. In addition, technological advances contribute to the want for more information, while an increase in transaction speed (Wilhelm & Chao, 2005) creates a need to understand decision making. There is an increased need for financial education. Financial products are increasingly complex. The use of debt is also occurring at an earlier (Grieb, Hegji & Jones, 2001). Fraud and identity theft have become commonplace concerns. Low wages create another stress and undermine the common standard of living increasing new bankruptcy filings (Rhine & Toussaint-Comeau, 2002). Many students lack an understanding of financial basics, including: bank accounts, credit cards, savings, investments, taxation and basic economics (Mandell, 1997). A study conducted by the FINRA Investor Education Foundation, found many Americans lack the financial ability to make good financial decisions (Serido, Shim & Tang, 2013).

A phenomenon that exists is that much of the effort of personal finance education is ineffective (Muske & Winter, 2004) and inefficient (Davis & Carr, 1992). This results in a disconnection between educators and learners (Muske & Winter, 2004). The stated goal of most personal financial education programs is to help learners achieve financial security (Muske & Winter, 2004), however, research on this goal is inconclusive. This further displays the need to incorporate assessment tools into program delivery. Many studies discover that recommended practices can offer long-term wealth collection (Godwin, 1990a) but are often minimally used (Beutler & Mason, 1987). This gap between education and action leads this research.

Questions surround why so few people use the education (Davis & Carr, 1992), learner versus educator motives and needs (Muske & Winter, 2004; Rettig & Schultz, 1991).

This article seeks to answer the question: how can the organizations delivering personal finance education change to make the education more efficient and effective? This article seeks to understand the present role and possible future role of both national and local personal finance educators. Also, this research aims to suggest improvements on possible roles. One study, stressed three major ways education can improve. These include curriculum integration, teacher training, and a client focus (Cross, 2010). The researcher hypothesizes that a more coordinated effort, without dictating a national curriculum, would improve the effectiveness and efficiency of personal finance education. This paper contributes to current literature by assessing many different providers of personal finance education and linking the learner's success to the effective use of the provider. The balance of this article includes: a literature review on how each provider can best meet the needs of learners, a method on how these providers can move forward, and concluding comments.

LITERATURE REVIEW

This paper serves as a literature review of important research about personal finance education. The researcher has analyzed over fifty peer reviewed articles on personal finance education to develop an understanding of improving industry effectiveness. The paper divides the content into two sections: understanding the need for assessment by looking at the current delivery and understanding the need for planning to arrive at its conclusions. Today, delivery of personal finance education comes from many different educators by many different methods. National programs such as the National Endowment for Financial Education, Cooperative Extension System, and National Foundation for Consumer Credit have created programs. There are also many local social service organizations, not-for-profits, financial planners, and financial institutions have designed programs to teach personal financial education.

In general, programs design allows educators to carry out accepted core curriculum. These items include: setting financial goals, keeping good records and inventorying possessions, creating a budget, and understanding how to make smart buys. Educators encourage the good habit of writing down and updating records as well (Muske & Winter, 2004). Today, the education delivered often focuses on the educator's needs rather than the learner. The educational content is self-designed by the educator using some advice from national programs. This can create a routine for delivery of content that involves little creativity or flexibility. Delivery focuses on reducing the time and effort to prepare lessons for the educator rather than focusing on the needs of the learner (Muske & Winter, 2004).

Assessing the effectiveness of current programs is difficult for several reasons. First, learner attitudes and needs may change during learning (Haynes-Bordas, Kiss, & Yilmazer, 2008). Next, learner readiness needs evaluation. Finally, is understanding the intent of the learner taking part in the program. For example, a learner that is self-motivated to change their life needs a different measurement (Caskey, 2006) than a learner that is under court order to earn a certificate of completion (Haynes-Bordas, et al, 2008). A major issue in education is that too few educators are using assessments to close the education loop. They are not studying assessment findings to uncover what can improve learning. For local entities, reviewing comments may be something they have never thought about or do not see the value (Banta & Blanich, 2011). The assessment includes several steps. Though there are many varieties of assessments, some common identifiers include: asking what needs done, planning the work, carrying out programs, analyzing and reporting findings, and closing the loop. Upgrading assessment efforts must occur to ensure improvement in content and delivery, ultimately driving improvements in student learning (Banta & Blanich, 2011). Including assessment in the objectives embraces the discipline allowing delivery of education to be more effective. Currently, the delivery of much education involves telling learners what they did wrong, often resulting in low motivation (Bishop, 2014).

Educators who use assessments to uncover ways to improve learner education focus on the positive of change rather than taking a punitive view. A push for standardized curriculum rises at times. The goal is to have benchmarks to measure program impact (Lyons & Neelakantan, 2008). Though a standard curriculum can be helpful, both educators and learners can view it with negativity and actively resist the change (Banta & Blanich, 2011). Local education providers have a wide variety of reasons to deliver personal finance information. Though done with good intents, other less genuine motives could be significant. For example a salesperson may look for a commission, a not-for-profit may focus on donor wishes and a school on mandated curriculum. Understanding these needs can exist is significant to the delivery of personal finance information and not ignored. Forcing these providers to comply with a national curriculum could discourage their efforts, cause issues with sponsors and possibly encourage them to stop providing financial education. Any changes suggested need to aim methods to encourage these providers to improve rather than conform.

What are positive items we can learn through assessment? By closing the loop, organizations could discover if their programs are effective at personalizing service and connecting with the learners. Educators should continue to use identified strengths and work to reduce identified weaknesses. Many local efforts have a strength in their ability to adjust to learners' needs. Several examples of successful local education efforts and what made them special exist. In Oklahoma, Reality Check could create local events by contacting schools, calling for volunteers, and overseeing the program by running a grassroots organization (St. Pierre, Simpson, Moffat & Cothren, 2011). In New Jersey, the MONEY 2000 program could successfully keep its learners in all-day education sessions by making the delivery personal (O'Neill, Bristow, & Brennan, 2000). In New York, a program help to decide biases in consumer decision making to explain participation in financial markets (Gathergood, 2011). Finally, in Indiana the Get Checking™ program had success with learners being the primary referrer to the program for new participants (Haynes-Bordas, et al, 2008). It is important to keep these programs motivated and delivering education using personal touch. Assessments can identify negatives. A students' ability to learn, recall knowledge, and apply skills taught ties to a teacher's competency in financial literacy (Cross, 2010). By closing the loop, organizations may find that individuals providing the education, lack preparation to deliver the education. Educators, in this case, need to understand the issues they bring and find methods to improve their own knowledge to better deliver content.

The lack of qualified instructors is a major weakness to many local education providers. One study found that only 66% of social workers felt "very confident" in the information they were providing (Despard & Chowa, 2013). In another social workers study, it also found that many of the topics taught to low-income learners were not ideas the educator was familiar with such as predatory lending (Anderson, Zhan, & Scott, 2007). Yet another study found that individuals often feel uncomfortable teaching personal finance ideas unless they already have a strong understanding of finance and economics (Cross, 2010). In the personal finance arena there is a disconnection between the individuals delivering education and learners' needs. One challenge is the information is interdisciplinary in nature, including several competing views (Bishop, 2014). Educators, often fail in connecting theory to practice causing a weak exchange (Lyons & Neelakantan, 2008). Another challenge is there is no formal definition of financial education. The range of definitions involves helping people change their behavior (Lyons & Neelakantan, 2008) to identifying the value of becoming a millionaire (Lim, 2011). It is certain that households will make financial mistakes and to improve they need to recognize the mistake and change behavior (Lyons & Neelakantan, 2008).

Through nonprofit partners, The California Department of Education chose to train and develop educators in personal finance allowing them to become more comfortable with the educational material. This approach was taken instead of a legislative or top-down administrative one. The model of public-private partnership provides greater flexibility to deliver professional development to both licensed teachers and those working to become licensed and working in California. Results have found that after the training,

instructors teaching personal finance were more confident and motivated after receiving training (Cross, 2010). A goal for providing effective financial education is to provide the tools to recognize mistakes and know how to work towards a resolution. Organizations need to educate its local educators, providing them with the opportunity to learn both the theory and practical application of personal finance. By performing assessment in personal finance education, the educators could better meet the needs of the clients. For example, many programs work to encourage decreased spending as a means to save. In disadvantaged populations this does not work (Scholz & Seshadri, 2007) and an alternative tactic may be encouraging employment with higher earnings. Performing an assessment recognizes that adjustments are sometimes necessary for learner presentations. Adjustments can be as simple as looking at the learner's age and socioeconomic status to create a curriculum based on similar learners' needs. This can also be a way to address normal life events at a given stage (Kotlikoff, 2006).

A PATH FORWARD

An approach for making personal finance education more effective would be to coordinate the different providers based on their ability to make a positive impact. National providers of personal finance education have access to significant financial resources to develop curriculum. Making more of an effort to help local providers understand the importance of assessment by providing training and access to more tool. Local personal finance instructors can use the national curriculum, improving it to more directly connect with the needs of the learners. All providers should understand the reason they are providing personal finance education and continue to follow their mission and meet the demands of donors and funders.

CONCLUDING COMMENTS

The goal of this research was to identify a way to best deliver a national level personal finance curriculum with delivery by local financial educators. The goal is to create and deliver a more comprehensive, efficient, effective, and flexible education platform. The eventual aim is to improve the understanding of credit, savings, management and collection of personal financial planning knowledge. To perform this, a review of existing literature was completed. A review of peer reviewed articles was completed across the topics of assessment and planning. A key finding is the disconnection between educators and learners, resulting from a lack of effective assessment. The gap between education and action of learners is a key finding as well. This was, in part, because of varied levels of learner readiness and program content. Learner results were stronger when local educators took the effort and given the ability to adjust to learner needs. Better assessment tools can be a bridge to close the gap between curriculum and meeting learners' needs.

This research has several important conclusions. The conclusions aim to streamline the delivery efforts of each financial education partner to capitalize on their strengths. First, the national platforms for personal finance education should focus less on curriculum development and more on improving the educational practices. It is difficult for standardized curriculums to be motivational locally. Instead, national programs should focus more effort to provide local educators with information on techniques to understand the natural education cycle and how to improve delivery. This focus would include items such as encouraging education for the individuals teaching financial education, focusing the education on client needs, and using feedback to assess and improve the education delivery and content. Second, encouragement should be given to local providers to provide education based on client needs. This practice is in action today; however, this research suggests how to provide access to help and guidance to be a good teacher and prepare a teacher for their role with learners. These conclusions contribute to the current literature in several ways. First, it brings into the spotlight the importance of planning and coordination of personal finance curriculum. Second, it highlights the need to value and respect each sponsor. Whether it be a teacher, student, organization or donor to understand their unique ability to help better deliver personal finance curriculum. Third, it encourages all parties to improve their efforts with manageable change.

The limits of this paper included a lack of statistical analysis and review of existing or proposed assessment tools. In addition, this research did not look at funding sources to carry out assessment and education needs. Future research may include several items related to further strengthening education delivered. This research could include matching the needs of donors to programs to secure future funding. Other research can include the impact of teaching the assessment process by national providers to local educators. Research at the local level can use assessment tools to measure program effectiveness.

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DIFFERENCES IN STUDENT PERFORMANCE IN ONLINE VERSUS TRADITIONAL QUANTITATIVE COURSES

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ABSTRACT

Online course enrollments have grown tremendously in recent years, but little research has examined the difference in student performance between traditional courses and their online counterparts. This research explores factors affecting student performance in online courses, compared to what they would likely have experienced in an equivalent traditional course. The results of the analysis of two sets of quantitative courses (undergraduate business statistics and operations management) indicates that grades are significantly lower (by about half a letter grade) for a student in an online course compared to a similar student in the same course taught by the same instructor with a traditional format. These results support the authors' contention that online delivery is not suitable for all courses. Student learning style, as measured by the Felder-Solomon Index of Learning Styles, was not a statistically significant factor influencing student academic performance.

JEL: A2, C1

KEYWORDS: Felder-Solomon ILS, Pedagogy, Online Success, Business Students

INTRODUCTION

Online learning has become increasingly popular among college students and many colleges and universities try to offer more online courses to meet the demand from students. Students have become more interested in taking online courses as information technology has rapidly developed. The 2010 Sloan Survey of Online Learning (Allen and Seaman, 2010) reveals that over 5.6 million students were taking at least one online course during the fall semester of 2009, an increase of nearly one million students over the number reported the previous year. The 21% growth rate for online enrollments far exceeds the less than 2% growth rate of the overall higher education student population and nearly 30% of higher education students took at least one course online (Allen and Seaman, 2011). Demand for online learning is growing as non-traditional students return to school in search of new job skills or with hopes of updating their current skills. Students demand more online course offerings for several reasons. One of the reasons is that online courses provide flexible access to content and are available anytime and anywhere (Angiello, 2010; Coyner and McCann, 2004). For that reason, online courses tend to be popular among students with jobs and families (Allen and Seaman, 2006; Lyons, 2004).

Online courses are appealing to some students due to convenience, however, the responsibility that comes with online courses can be quite challenging. Jenkins (2011) suggests that educators think hard about teaching courses using online delivery and what types of students should take online courses. He argues that online courses are not for everyone and not every course should be taught online given the fact that success rates in online courses are only 50% as compared to 70–75 % for comparable face-to-face (i.e. “traditional”) classes. The authors' online teaching experience also indicates that the student failure rate is significantly higher than that of the same course taught face-to-face. Most students fail to recognize the fact

that the level of difficulty for online courses is more or at least the same as face-to-face courses. Students unprepared for that challenge often fail the course. This leads to two broad questions: is online learning less effective than traditional learning when measured using students' course grades? What factors can help identify which students are most likely to succeed in online courses? In this exploratory research, the authors wish to identify characteristics of students that predict academic success in online quantitative courses. The organization of the remainder of this document is as follows. The next section provides a review of the relevant research and the corresponding findings. This research is composed of two parts. The first area covers research that explores differences in student performance in online classes versus traditional classes. In this setting, "online" and "traditional" refer to two distinct methods of the delivery of course content to students. For this research, "online" refers to any course in which more than 50% of the course content is online. In other words, the authors do not attempt to further delineate between "hybrid" (more than 50% of course content delivered online) versus "online" (more than 80% of course content delivered online). The second area covers research that examines students' learning style as a factor in academic success. The remaining sections describe the methodology used in this research, the results of the experiment, discussion and conclusions, and limitations of this research and ideas for further study.

LITERATURE REVIEW

Since this research seeks to identify factors affecting student academic performance, relevant literature reviews are in two separate sections. The first section reviews research comparing student success according to the course delivery method (either online or traditional), without regard to learning style. The second section reviews research comparing student success based on student learning style.

Differences in Student Performance Based on Course Delivery Method

Some studies have attempted to examine whether the learning outcomes of students differ in traditional versus online delivery. For example, Du (2011) conducted a study of student performance in online versus traditional versions of an Introductory Principles of Accounting course. The final sample included 128 students across three semesters and concluded that no direct improvement occurred by switching from a traditional learning model to an online learning model. A similar study of graduating seniors found that students in a traditional accounting program (all courses delivered in the traditional format) did better than students in online sections (Adewara et al., 2010). This same study found that business administration students in the online program had better grades than in the traditional program. These differences indicate that student performance may differ based on academic major and the mode of learning: either online or traditional. A related question to students' performance in an online learning model is "Is the level of student course satisfaction generated by hybrid learning higher than that which is generated by traditional learning?" Nowell (2011) conducted a case study using an introductory management course that revealed there was no difference between online learning and traditional learning in terms of student course satisfaction. Similarly, DiRienzo and Lilly (2014) compared the learning outcomes on two different types of assignments within each of five separate courses (using two different delivery methods: online and traditional), and found no differences.

The five courses that were included are Principles of Financial Accounting, Operations and Supply Chain Management, Business Statistics, Principles of Economics, and Business Law. The fact is that online courses demand more self-discipline and the ability to study independently. Simon, Jackson, and Maxwell (2013) found that while 80% of the students in their online MIS course had passed the course, only 40% indicated that they would still take the same course online. This finding agrees with the authors' informal interviews with students in the online business statistics course. Specifically, while a majority of the students pass the course, their advice to other students is almost exclusively to avoid the online version of the course unless special circumstances prevent attendance in a traditional section. As a result, online instructors may need to do more to help students perform better in order to improve passing rates in online

courses. One of the things instructors can do is to understand how student learning styles relate to academic performance.

Differences in Student Performance Based on Learning Style

Markham (2004) concludes that classroom teaching improves when educators can identify student learning styles. More effective classroom teaching helps students succeed in their degree programs. Recent research suggests that the learning style by which students learn and apply knowledge is an important factor to consider when the quality of education is assessed (Graf, Lin and Kinshuk, 2008; Kolb and Kolb 2009). Certainly, having knowledge of learning styles is an attempt to understand the complex processes by which students acquire knowledge. The motivation of this study is very specific with regard to understanding how an individual's learning style affects their performance on online courses. Educators who are engaged in online teaching may better utilize the knowledge regarding learning styles as a way to enhance student performance. Sandman (2009) compares 25 different learning style models for insight into the academic performance of telecommunications students, and selects the Felder-Solomon ILS. The reasons for selecting this learning style assessment are the following: the tool is commonly used, is valid, is easy to understand and score, and is readily available. The study indicates that many different learning style profiles are present within a course, and that the instructor should alter their pedagogical techniques when it becomes apparent that certain learning styles are not performing as well as others.

Felkel and Gosky (2007) verify the reliability and validity of the Felder-Solomon ILS for calculus students at Appalachian State University. Litzinger, Lee, Wise, and Felder (2007) also confirm the construct validity and reliability of the Felder-Solomon ILS scales using Cronbach's alpha and factor analysis. Williams, Matt, and O'Reilly (2014) used the Felder-Solomon ILS to demonstrate a difference in learning styles among three generations of students: baby boomers (born 1943-1960), generation X (born 1961-1981), and millennials (born 1982-2001). A later study by Sandman (2014) determined that students utilized different learning styles for different courses. Additional studies have also utilized this same learning style model. Cegielski, Hazen, and Rainer (2011) collected data from 196 information systems majors and found that student performance increases significantly when the instructional methodology closely matches the student's learning style. Eom, Wen, and Ashill (2006) conducted an empirical investigation of the determinants of students' perceived learning outcomes and satisfaction. They found that the two factors, learning styles and instructor feedback significantly affect perceived learning outcomes. Hawk and Shah (2007) reviewed five learning style instruments and six learning style models. They believe that student performance improves if the instructor has the knowledge of the overall learning style profile of students and makes adjustments to his/her learning approaches as the profile changes from course to course. However, Bacon (2004) collected data from six sections of a traditionally taught marketing course and found that there was very little effect of learning styles on learning outcomes.

One study attempted to measure the impact of both learning style and delivery method on the effectiveness of instruction. Kozub (2010) used 2-way ANOVA to study the effectiveness of web-based instruction compared to traditional instruction within the same course. (Note: web-based instruction is "online learning" for a single topic or unit, as opposed to online learning for an entire course.) The two factors used were learning style as measured with Kolb's model and content delivery method (web-based versus traditional). There were no significant differences in overall student performance among the four learning styles or the two content delivery methods. The present study expands on this idea by considering the difference between two separate course types: online and traditional.

Because of the common usage of the Felder-Solomon ILS and its measures of learning styles along four different scales, together with the reasons stated previously, the current study utilizes the Felder-Solomon ILS for identifying the factors most highly related to success in online quantitative classes. This study then uses this learning style model and focuses on three major research questions. These are 1) the differences

(if any) in the academic performance of students in online versus traditional quantitative business courses, 2) the impact (if any) of student learning style on academic success, and 3) the exploration of other factors that might contribute to the differences in academic success.

DATA AND METHODOLOGY

This study consists of students in four sections of two different courses in the spring 2014 semester. The same instructor teaches two sections of introductory business statistics: one is online and the other is traditional. The instructor uses the same assignments, same homework, and same exams in both sections. Two sections of operations management are also taught by the same instructor (not the same instructor that is teaching business statistics), and again the same assignments, same homework, and same exams are given to the students in both sections. Both instructors had previously taught these same courses online and in a traditional format prior to gathering the data for this survey. That is, the instructors were experienced, each having earned online teacher and online course designer certifications based on the Quality Matters Rubric and Sloan-C workshops, administered by their university’s Distance Learning Office. In summary, instructors used the same set of pedagogical techniques and class activities for each of the two courses they taught. Sandman (2009) employed this same technique. Table 1 summarizes the distribution of students in each of the four courses.

Table 1: Number of Students by Course and Type

Course\Type	Traditional	Online	Totals
Business Statistics	34	17	51
Operations Management	53	17	70
TOTALS	87	34	121

This table shows the number of students enrolled in each of four sections of two courses.

To explore factors potentially affecting student academic success, the students took the Felder-Solomon Inventory of Learning Styles (ILS) survey. This survey consists of 44 questions, 11 within each of 4 sections or scales. For each question, the student chooses one of two options, each representing the opposite end of the scale. The scales consist of sensing/intuitive, visual/verbal, active/reflective, and sequential/global. Litzinger, et al (2007) summarizes the meanings of these scales as: 1.) “*sensing* (concrete, practical, oriented toward facts and procedures) or *intuitive* (conceptual, innovative, and oriented toward theories and underlying meanings), 2.) *Visual* (prefer visual representations of presented material, such as pictures, diagrams, and flow charts) or *verbal* (prefer written and spoken explanations), 3.) *Active* (learn by trying things out, enjoy working in groups) or *reflective* (learn by thinking things through, prefer working alone or with one or two familiar partners), and 4) *sequential* (linear thinking process, learn in incremental steps) or *global* (holistic thinking process, learn in large leaps).”

Tabulating the score consists of adding up the number of responses for each end of each scale and finding the difference between the numbers of responses. This produces a score for each scale that has one of the following values: 1, 3, 5, 7, 9, or 11 together with the indicator of the student’s preference (the end of the scale for which the student gave the most answers) for one or the other end of each scale. In other words, these values are scores on a Likert scale, and the scoring of student responses produces a final score for each scale that is analogous to a correlation. For example, a student with a score of 9 on the sensing end of the scale would have a strong inclination to learn via sensing. Another student with a 5 on the intuitive end of the scale would have a moderate preference for learning via intuition. Students in the middle have no sensing/intuitive preference. The closer the student response is to either end of the scale, the stronger their inclination to learn in that manner. The dataset includes student scores on each of the four Felder-Solomon scales and the following demographic data: gender, age, number of previous online courses, academic major, distance from home to school, reason for taking an online course, and number of hours worked per week. The authors used SPSS version 19 to perform all statistical tests.

RESULTS AND DISCUSSION

Difference in Academic Performance

Several statistical tests addressed the research question regarding potential differences in student performance. The chi-square test evaluated the hypotheses:

H₀: there is no relationship between course type and course grade

H₁: there is a relationship between course type and course grade

SPSS produced the contingency table of grades by course type shown in Table 2. The “D or F” category combined the D and F grade categories (due to small cell frequencies).

Table 2: Contingency Table of Grades by Course Type

Course Type		Course Grade				Total
		D or F	C	B	A	
Traditional	Count	12	20	41	14	87
	% within Row	13.8%	23.0%	47.1%	16.1%	100.0%
	% within Grade	60.0%	58.8%	83.7%	77.8%	71.9%
Online	Count	8	14	8	4	34
	% within Row	23.5%	41.2%	23.5%	11.8%	100.0%
	% within Grade	40.0%	41.2%	16.3%	22.2%	28.1%
Total	Count	20	34	49	18	121
	% within Row	16.5%	28.1%	40.5%	14.9%	100.0%
	% within Grade	100.0%	100.0%	100.0%	100.0%	100.0%

This table shows the contingency table of final course grades classified by type of course. Row and column percentages are included to aid in the discussion of the chi-square test result.

The data in Table 2 produced a Pearson Chi-Square value of 7.949 with 3 degrees of freedom and a level of significance of 0.047. This indicates strong evidence of a difference in the distribution of grades by type of course. By examining the percentages for rows and grades in Table 2, the cause of the statistical significance is obvious. Specifically, 16.1% of students in the traditional courses earn a final grade of “A”, while only 11.8% of students in the online versions earn an “A”. This pattern continues with students earning a final grade of “B”, since 47.1% of the students in traditional classes earn this grade, while only 23.5% of students in the online sections earn it. On the other hand, 23.5% of the online students earn a “D” or “F”, compared to only 13.8% of the students in the traditional sections. The authors believed that the final course average in the traditional course would be greater than the final course average in the equivalent online course, based on previous experience with grades in traditional versus online courses. The variable “Course Avg” is the proportion of the total available points earned by the student over the entire semester, converted to a percentage, and so the values ranged from 0 to 100. The independent samples t-test evaluated the hypotheses:

H₀: “Course Avg” in traditional course ≤ “Course Avg” in online course

H₁: “Course Avg” in traditional course > “Course Avg” in online course

The data in Table 3 shows the output of the independent samples t-test performed on the variable “Course Avg”.

Table 3: Descriptive Statistics from Independent Samples t-test

	Course Type	N	Mean	Standard Deviation	Standard Error Mean	t	df	2-tailed Significance
Course Avg	Traditional	87	80.78	9.102	0.976	2.60	119	0.01 ***
	Online	34	75.50	12.054	2.067	9		

This table shows statistics related to course averages for students in the traditional sections compared to students in the online sections.

**** The test of difference of means for Course Avg was statistically significant at the .01 level.*

The independent samples t-test produced a t-statistic of 2.609 with 119 degrees of freedom, which had a 2-tailed significance of 0.01. This indicated very strong evidence that there is a difference in course average between students in the two types of courses. Based on the descriptive statistics, the average difference was 5.28 points or approximately half a letter grade (both instructors grade on the scale: course average of 90-100 is an A, 80-89 is a B, 70-79 is a C, etc.) In summary, both the chi-square test for a relationship between course type and grades and the independent samples t-test for differences in course averages indicate a significant difference in grades between traditional sections and online sections of these quantitative courses.

Impact of Learning Style

Two techniques were employed to determine whether learning style, as measured with the Felder-Solomon ILS, had any impact on academic performance. First, correlations between each of the four dimensions of the learning style instrument and student course average were calculated. No statistically significant results were found. Second, linear regression was performed using student course average as the dependent variable, and the four learning style scales and other demographic variables as independent variables. The only significant variable for predicting the student's course average was the course type: whether the course was traditional or online. Sandman (2014) used logistic regression with student age and course type (online or traditional) to predict student preference for each of the four scales of the Felder-Solomon ILS. He found that age was not a significant predictor, but whether or not the course was online was a significant predictor. The present research also used logistic regression to predict student preference for each of the four scales, with four independent variables. The four independent variables included gender, whether the class was online, student's final course average, and the number of previous online courses taken by the student. None of these independent variables was a significant predictor at the 0.05 level of significance.

Impact of Other Demographic Variables

The linear regression performed with learning style included the other demographic variables as independent variables. As noted in the previous section, none of these variables proved to be statistically significant. In other words, none of them was useful as a predictor (other than course type) of course average. There were an insufficient number of students to conduct the chi-square tests after separating males from females, so the effect of "gender" was not measured. This occurred because the chi-square test requires that no more than 20% of the cells in a contingency table have expected frequencies less than 5 (Burns and Burns, 2008).

CONCLUDING COMMENTS

The goal of this research is to identify whether online delivery and traditional course content delivery in quantitative courses are equally effective in terms of student course grades, and to identify the factors that determine student success. These questions were evaluated by examining student grades and demographics across two different sections of each of two different quantitative courses. Two separate instructors each taught one online section and one traditional section of their course, resulting in 121 students in four

separate sections of the two quantitative courses. Student success as measured by final course grade was compared, and learning styles and other demographics were examined. A chi-square test identified a significant difference in grade distributions between the two course delivery methods, and an independent sample t-test identified a significant difference in overall course averages between online and traditional students. However, no significant differences were found based on learning styles or other demographic variables. The findings in this research are consistent with those reported by Zhu and Stevens (2014), who utilized a simpler learning style model (the VARK model, based on learning style as primarily one of visual, auditory, read-write, or kinesthetic) to show that grades are better in traditional quantitative courses when compared to the same course taught online by the same instructor. As noted earlier, DiRienzo and Lilly (2014), did not find a difference in student performance between online and traditional courses, but their data consisted of five different courses, some of which were quantitative and others that were not. This collection of fundamentally different types of courses likely blurred the distinction between student performance in online and traditional styles.

Prior to this research, the authors had formed a common opinion about online courses: that not all courses should be taught online and that not all students should take an online course. The results of this study indicate that there is definitely a significant difference in overall final course average for students in traditional *quantitative* classes compared to their counterparts in an equivalent online course taught by the same instructor. The authors were hoping to demonstrate that other factors affected student academic performance, but learning style as measured by the Felder-Solomon model, and other demographic data included in this study did not support those hypotheses. In summary, this study addresses three sets of research hypotheses and there was sufficient statistical evidence to suggest that one of the three was true. The first hypothesis, that there is a difference in student academic success between online and traditional quantitative courses, was demonstrated. The second hypothesis, that student learning style has an impact on student academic success, was not demonstrated. Finally, the third hypothesis, stating that other demographic factors affect student academic success, was not demonstrated.

Because this study consisted of only four sections of students at one university, it would be of interest to compare data across multiple schools using similar courses. In terms of courses, since prior research has shown that learning styles differ by academic major and courses within that major, it would be of interest to perform a similar analysis using courses that are not quantitative in nature. Such “qualitative courses” are those in which formulas and algorithms are not significant topics. Students (especially those who do not enjoy mathematics) would identify these courses as the “easier” ones. In addition, the inclusion of other variables might help to identify the type(s) of students most likely to succeed in one course type compared to another. Such information, if available, could be of great use to academic advisors who could counsel students regarding the best path for their personal academic success. In addition, as noted earlier, students who succeed more frequently graduate sooner, have less debt, and are more satisfied with their educational experiences.

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MODERATING EFFECT OF INDIVIDUAL DIFFERENCES ON THE RELATIONSHIP BETWEEN CONTENT, DELIVERY METHOD AND PERCEIVED EFFECTIVENESS OF TRAINING

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ABSTRACT

The business literature has mostly focused on the relationship between job performance and satisfaction of employees rather than the relationship between job performance and the training and development of employees. Additionally, the amount of research focused on determinants of training outcomes and effectiveness, is not satisfactory. This study analyzes the moderating effect of age, gender and seniority on the relation between the content and delivery of training programs and training effectiveness. Regarding training effectiveness, only the first two phases of the four levels model of Kirkpatrick (i.e. the satisfaction about the training and the learning outcome perceptions) are analyzed. A multinational corporation operating in Turkey is chosen as the sample for this study. The findings revealed that age and gender factors are insignificant in the first level of the Kirkpatrick model. However, seniority is the only factor affecting trainee satisfaction. Regarding the second level of Kirkpatrick's model, all age, gender and seniority factors affect the learning process perceived outcome. These findings support some previous research but contradict with some others.

JEL: M53, 015

KEYWORDS: Training, Development, Training Effectiveness, Age Effect, Gender Effect, Seniority Effect, Training Design

INTRODUCTION

If a company wants to have a competitive advantage in the global market, it needs to improve the capabilities, knowledge and skills of its workforce. Globalization has increased the competition for any company in the world regardless of the size and operations (Bresser-Pereira, 2010). More importantly, firms face new changes and challenges due to fast global and technological development. Technological advancements create the need for capabilities and competencies required to perform a particular tasks (Tai, 2006). Eventually, the human factor has become more important. In addition, the consumer profile has changed dramatically. Consumers' knowledge on what is available in the marketplace; with which attributes and prices has being dramatically increased (Clemons, 2008). Therefore, customer relations have become more important than it was in the past. Customer relations have also increased the importance of human capital in any company because human capital is the main channel of communication for any company to generate stronger relations with their customers.

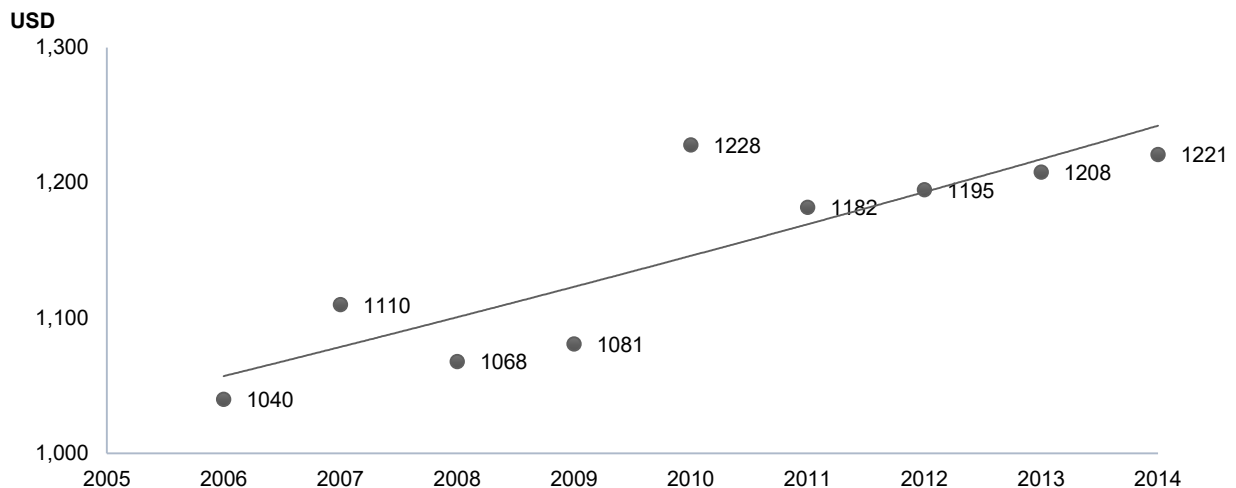
Changes taking place in the business environment have forced companies to modify their internal features such as the organizational structure, organizational culture (Bartlett and Ghoshal, 1999). Organizational structure is an important factor resulting in the failure of the training programs. Among these changes, human resources management has been highly important for developing competencies for the human capital

of any company. It is assumed that the workforce, with more developed and up-to-date competencies, could generate sustainable and hard to imitate competitive advantages over competitors.

Today’s business environment changes so fast that every company must make their human capital qualified with the latest and up-to-date skills, abilities and competencies. Companies need to focus on training and development of employees if they want a sustainable competitive advantage. Consequently, training and development have been one of the most important research areas of the last few decades. Most of the literature has investigated the individual characteristics, organizational aspects, determinants of the training design and their effects on the training effectiveness. However, most studies have assumed the individual characteristics of trainees as control variables affecting the training result and outcome. The literature generally implies a certain effect of individual characteristics on the training effectiveness.

The data reported in the “World Economic Outlook” (www.td.org, 2014 report) shows that direct learning expenditure per employee for the year 2014 was \$1,221. Organizations continued to invest in training and development for their employees with an inclining trend (Figure 1). As the world economy continues to grow, talent development will continue to have an important and valuable role in organizations. However, it is not related with the amount of money spent for training and development. Rather, it is related to the effectiveness in designing of training and development activities.

Figure 1: Organizations’ Investment in Training and Development for their Employees



This figure shows the amount of investment (in USD) in training and development for employees between the years 2006 and 2014. The data for this figure is collected from 340 organizations of various sizes, industries and locations all around the world.

The literature regarding the training and development of the human resources is incomplete. Most academic literature focuses on the training effectiveness and training design relation. However, the moderating effects of the individual characteristics in this relation are generally ignored. This implies, based on the individual characteristics, some employees might tend to prefer some other training programs. In other words, there may not be one generally accepted training design that could maximize the training effectiveness but there might be more than one based on the characteristics of the employees such as age, seniority and gender. Based on this assumption, this study has focused on how the characteristics of trainees could be deterministic regarding the relation between the content and delivery methods of training program and the effectiveness of the training program.

This study examines how age, seniority and gender of trainees affects the relationship among the content and the delivery methods of the training programs and the perceived effectiveness of the training programs.

Specifically we focus on the satisfaction level and perceived learning outcomes of employees regarding the training program.

This study is limited to the analysis of the moderating effect of age, gender and seniority on the relation between the content and delivery of training programs and the training effectiveness. Regarding training effectiveness, only the first 2 phases of the 4 level model of Kirkpatrick (i.e. the satisfaction about the training and the learning outcome perceptions) are analyzed in this work. The study consists of an analysis of the literature regarding training and development. We provide empirical analysis of moderating effects in individual differences (i.e. age, seniority and gender) on the relation between the training design and training effectiveness.

LITERATURE REVIEW

Training effectiveness implies the trainee has achieved the targeted levels. More importantly, the trainee could transfer what s/he has learned from the training program into the job. This improves the performance of the employee and the performance of the company (Berkhof et al., 2011; Mestry, 2012). Studies about training effectiveness have been generally focused on the worth of the training program and the perceptions of the employees about the training program. Training content, how the training program is delivered and many other factors are highly influential on the effectiveness of the training program. In this study, the content, delivery method, source and perceived effectiveness of training program are taken into consideration for the identification of factors affecting the training program effectiveness (Aguinis and Kraiger, 2009; Griffin, 2010; Salas et al., 2012).

The content of training implies what the trainees need to know. The content of training must be specific to the needs of the employees and to the needs of the overall organization. The content of training matters for training effectiveness and job performance of the trainee. The trainee would be able to increase his/her performance once the content of the training is matched with the job performance and personal career goals of the employee (Buckley and Caple, 2009). Performance theory depends on how the trainee perceives the performance and if training is compatible with the content of the training. In other words, in this context, the perceptions of the trainee matter as well. Once the trainee believes that, his/her performance has increased because the training content is significantly influential on and compatible with the performance traits, then the effectiveness of the training increases. This not only increases the performance of the trainee after the training but also increases satisfaction of the trainee about the training program during the training.

The delivery method of any training program implies in which way the training program is exercised (Clark, 2011; Tan and Lim, 2012; Silberman and Auerbach, 2011). The methods are generally classified as trainer led (i.e. face-to-face in a classroom environment, on site and virtual classrooms or distance learning), self-paced training (i.e. online training, multimedia based training via CD-ROMs, DVD-ROMs) and Hands-on training (i.e. coaching, demonstrations, apprenticeship and cross training).

The company could prefer internal or external sources of training. For instance, if there is an employee that is an expert in linguistics, the company would prefer evaluating this strength to improve the linguistic skills of all other employees rather than outsourcing the required training program from outside the organization (Alexiou and Coutts, 2008; Martínez-Ros and Orfila-Sintes, 2012; Kotey et al., 2011). More importantly, based on the delivery source of training, the effectiveness of training may increase or decrease. Individual characteristics of the trainees could be influential as well since the more comfortable the trainee is in an internally sourced training program the more motivation increases and the effectiveness of training improves through the increase in performance. In another case, the trainee might feel more comfortable when the source of training is external then when the implementation of an external source of training could improve the effectiveness of training. The relationship between the delivery source of training and training effectiveness could be also dependent on other internal and external factors.

The effectiveness of training programs depends on many factors that include the delivery method and delivery source of training, the content of the training program and the duration. In addition, the number of employees could influence the effectiveness of training through changes in the level of trainee satisfaction and changes in the job performance of trainees after the program. However, the effects of all these factors on training program effectiveness could change based on how the trainees perceive the training program and training effectiveness (Arthur Jr. et al., 2003; Aguinis and Kraiger, 2009).

Besides the factors specified above, how the trainee perceives the overall organization and training program affects the final outcome regarding the effectiveness of training, satisfaction of trainee during the learning and training transfer accompanied by the job performance of the trainee (Tai, 2006; Weissbein et al., 2011; Huang and Chen, 2010). This reveals that management must focus on individual differences among employees, the overall perception of whole workforce about the organization and training program besides the training based on more tangible factors such as the place of training, the source of training and others.

Moderating Effects of Individual Differences on the Relationship between Training Determinants and Training Effectiveness

Today's human work force is more diverse than it was in the past. In the past, white male employees dominated most of the labor force. Today women, minorities such as Blacks, Hispanics, and Asians have all become increasingly important parts of the labor force. Management of these human resources has been tough for any company. Once the labor force is diverse, then expectations, career choices and other needs and demands of the labor force become diverse as well (Savickas et al., 2009).

This study assumes that training determinants such as training content and the training effectiveness relation could change based on the age, seniority and the gender groups within any workplace. Individual and group-based characteristics of the workforce such as age, seniority and gender have become more important in any business because the competency of the workforce implies increased ability to generate competitive advantages over competitors. Competency might also be involved in individual differences (Dubois, 2010).

Recent studies about issues regarding human resources management of today's businesses are the increasing age of the workforce and the high degree of introduction of new production techniques and managerial issues (Timmerman, 2000). This implies that training of the aging work force is compulsory for any company to stay competitive. In this regard, the main issue has been the compatibility between age conditions of the workforce and training program determinants. Today, in most cases technology companies, especially software companies, and social media businesses such as Facebook, Twitter and many others consist of a younger workforce. The working environment and working schedule are all adjusted based on the preferences of the younger generation (Ornatowski and Team, 2012).

Age diversity in working places has increased substantially in the last few decades. Both theoretical and empirical studies about age effects on the training program determinants and the training program effectiveness have increased as well. In one of those recent studies, Willis et al. (2006) found that older employees require a different training method than the conventional one. They concluded that long-term based training programs about the improvement of the cognitive skills generated better performance results for older employees. More recent studies find contradicting results including Ng and Feldman (2008). Once they separated the task performance and performance of the training, they could not find a significant effect of age on the training performance. This is interpreted, as there being no age effect on training effectiveness based on specific training performance. However, in the same study, the authors found that the age factor is largely effective on the overall job performance.

In the literature, individual features of employees are generally found significantly influential on job performance and job satisfaction of the employees. As noted above, besides the age factor, seniority and gender are important factors affecting the overall satisfaction and the performance of employees.

Seniority is assumed effective on training performance and outcomes based on the hypothesis that more senior employees with longer work experience are more inclined to generate higher performance during and after the training program (Murugan, 2007). Moreover, content of the training program might be more related to the seniority in some cases. Specifically, technical training programs require more experience and seniority of employee to generate better outcomes and be more effective from the perspectives of both employee and the company. Since senior employees become more able to improve their learning and job performance; they are more involved in the job requirements for a longer period.

Lim and Johnson (2002) concluded that seniority among all individual employee related factors could be more influential on training transfer. In another work, Lim and Morris (2006) referenced a study for the case of employment characteristics and training effectiveness and transfer by declaring that for the Asian example, the seniority of employees would not significantly affect the learning level of the employees during the training program. However, in another empirical study, Lim (2000) found that employees with longer work experience and shorter period of work experience demonstrate significant differences in learning transfer to job performance after the training program. As specified in the theoretical analysis, senior employees are more inclined to integrate, implement and transfer what they have learned during the training program into their overall job performance.

Gender has been highly regarded as an important individual characteristic of employees once job performance, job satisfaction and the training performance and satisfaction are considered. In the past, the dominance of white male employees resulted in job design and training programs developed based on the individual features of male employees. Until the last few decades, training programs and working conditions would not be developed by considering diversity in the workforce based on gender, race, and other important factors. Fahr and Sunde (2009) provided that male employees demonstrate significantly higher levels of training performance than female employees. The paper concludes that, especially for the male type of training programs that require more physical abilities, the difference between training scores of male and female employees increases even more. In this regard, these studies reveal that training transfers, training program outcome, and effectiveness might change based on the employee gender through the content of the training program.

Male employees are assumed to demonstrate a higher degree of training effectiveness than female employees. Especially for the training programs that have components that are more technical involved. However, another study revealed that although male employees tended to be more interested in technical issues than female employees; this does not imply any significant performance difference between the male and female employees regarding more technical training concepts (Torkzadeh et al., 1999).

In another study, Tai (2006) used the effects of employee self-efficacy on training effectiveness. In his study, age, gender, and other demographic variables are regarded as control variables. The main subject of the study was the self-efficacy effect on the training outcome. The results demonstrated that gender has a significant effect on training effectiveness only for the training transfer motivation.

Another study could not find any significant effect of demographic variables such as gender, age and the status of the employee in the company on training transfer and effectiveness. In this work, Santos and Stuart (2003) concluded that demographic factors may not be as significant as the training programs assumed by previous studies and researches. In this sense, the authors conclude there is still no consensus on the moderating effects of gender, age and seniority on the relation between the training determinants, design and the training effectiveness and training transfer.

Evaluation of Training Programs

One well-known and widely used training evaluation methods is Kirkpatrick's Four Levels of Evaluation Model (Saks and Burke, 2012). In this model, Kirkpatrick concluded that his evaluation model measures the following:

Level 1: Reaction of the student about the training program. This means how the trainee has thought and felt about the training program. At the first level, this model measures if the trainee is satisfied with the training program.

Level 2: The second level measures if the trainee has learned something from the training. In other words, the model of Kirkpatrick measures the level of change in knowledge, skills and abilities of the trainee before and after training program;

Level 3: In the third level, the model measures the behavioral change. The model considers if the capability of the trainee improves and this increases the performance of the trainee.

Level 4: In the fourth level, the training program is evaluated based on how changes in the trainee's performance resulting from the training program. Do these changes affect the business environment and the organizational performance?

The literature, states that the 4 level evaluation model of Kirkpatrick generally measures and evaluates the overall training approach in the organization. It is assumed that starting from the first level and going through the other levels, the cost and complexity of the training approach increases (Saks and Burke, 2012; Steensma and Groeneveld, 2010; Praslova, 2010). The effectiveness of training in every stage depends on the effectiveness of training in the previous levels of the evaluation model developed by Kirkpatrick.

Therefore, the increase in training programs' effectiveness is linked to improvement in every level as it is suggested by the evaluation model. In this respect, the four level of evaluation model implies that as long as the trainee is satisfied and has a positive attitude about the training program, there is increases learning by the trainee in the following level. After that, the motivation and job performance of the trainee improves. Eventually, the increase in job performance of individual trainees also improves the performance of the company and the outlook and posture of the company in the business environment.

DATA AND METHODOLOGY

In this study, workforce attitudes toward training programs and the outcome of training programs on ability, job skill and knowledge of the workforce are investigated. The analysis is completed in a randomly chosen multi-national company. The workforce from sales, human resources, marketing, logistics and other departments are included in the analysis. The opinions, beliefs and perceptions of employees about the training programs and their effectiveness are asked directly of the employees. Based on their answers the analysis is completed.

In this study, a questionnaire-based analysis is carried out. The questions are categorized into two groups based on the first two dimensions of Donald Kirkpatrick's model of 4-Levels "Evaluation of Training Programs": 1. Reaction of the student and 2. Learning. The questionnaire analysis is carried out based on a 5-scale (Likert scale) because it is believed that a 3-scale would not capture the attitude of employees that have attitudes or/and level of learning about the training program between neutral and high; neutral and low.

Implementation Model

In this study, the reaction of the participant to the training program and the outcome of the training program on the learning process and how the participant has implemented what he/she has learned in his/her job is investigated. The examination is based on the following factors; 1. Age of the employee 2. Seniority of the employee through the number of years worked 3. Gender of the employee.

The main indicators of the training programs are: 1.) Delivery method of the training (online, face-to-face or simulation, experimental based); 2.) Source of delivery of the training program (internal trainer or external trainer); 3.) Duration of the training (long term or short term); 4.) Volunteerism of the trainee (compulsory attendance or voluntary attendance); 5.) Number of participants (High or low participation); and 6.) Place of the training (inside of the corporation and work place or outside such as hotels, spa-hotels, training centers, etc.).

Suggested Hypotheses and Assumptions

This study assumes that attitude and the level of satisfaction of any employee about the training program depend on the age, seniority and gender of that employee. The first six hypotheses are about the first level of Donald Kirkpatrick model of 4-Levels of Evaluation Model. The last six hypotheses are about the second level of this Evaluation Model. The first six hypotheses evaluate how specific factors affect the relation between properties of training program and level of satisfaction as well as thought and attitude of the employee about the training. The last six hypotheses are based on the evaluation of how specific factors change effects of training program features on knowledge level and ability of the employee to complete his/her job and responsibilities at work.

Hypothesis-1: Gender, Age, and Seniority have an effect on the relationship between the delivery method of training and the level of satisfaction (positive or negative attitude) of the employee about the training program.

Hypothesis-2: Gender, Age, and Seniority have an effect on the relationship between the source of delivery of the training program (whether internal or external) and the level of satisfaction (positive or negative attitude) of the employee about the training program.

Hypothesis-3: Gender, Age, and Seniority have an effect on the relationship between the duration of the training and the level of satisfaction (positive or negative attitude) of the employee about the training program.

Hypothesis-4: Gender, Age, and Seniority have an effect on the relationship between the volunteerism of the employee about participating in the training program and the level of satisfaction (positive or negative attitude) of the employee about the training program.

Hypothesis-5: Gender, Age, and Seniority have an effect on the relationship between the number of trainees in the training program and the level of satisfaction (positive or negative attitude) of the employee about the training program.

Hypothesis-6: Gender, Age, and Seniority have an effect on the relationship between the choice of place where the training takes place (within outside of the organization) and the level of satisfaction (positive or negative attitude) of the employee about the training program.

Hypothesis-7: Gender, Age, and Seniority have an effect on the relationship between the delivery method of training and the level of learning of the employee and how employee reflects what s/he has learned into his/her duties and responsibilities.

Hypothesis-8: Gender, Age, and Seniority have an effect on the relationship between the sources of delivery of the training program (whether internal or external) and level of learning of the employee as well as how the employee reflects what s/he has learned into his/her duties and responsibilities.

Hypothesis-9: Gender, Age and Seniority have an effect on the relationship between the duration of the training and the level of learning of the employee and how employee reflects what s/he has learned into his/her duties and responsibilities.

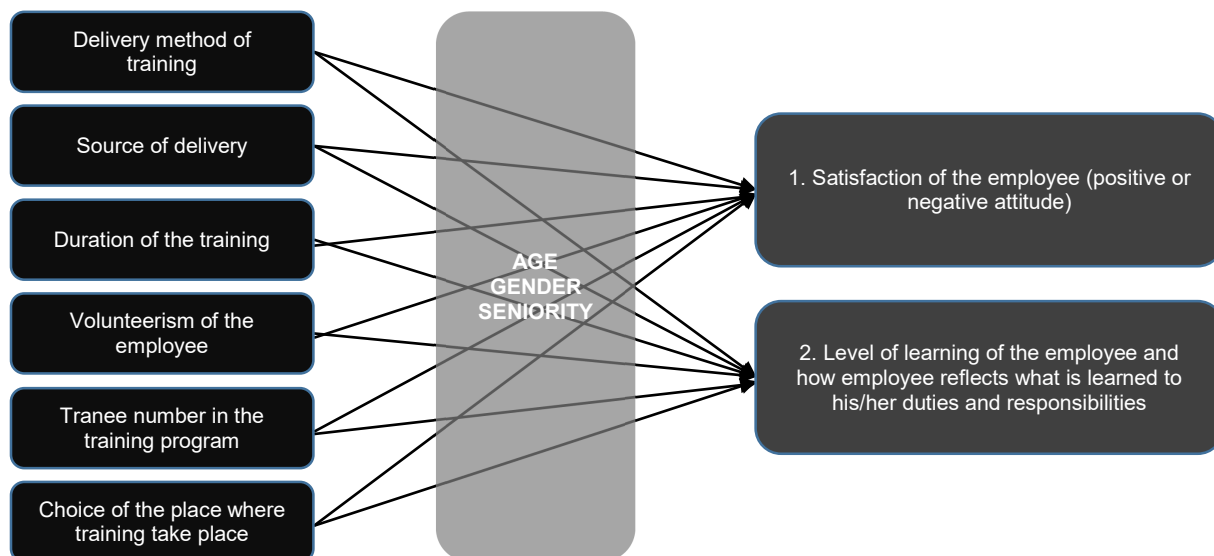
Hypothesis-10: Gender, Age and Seniority have an effect on the relationship between the volunteerism of the employee about participating in the training program and level of learning of the employee and how the employee reflects what s/he has learned into his/her duties and responsibilities.

Hypothesis-11: Gender, Age and Seniority have an effect on the relationship between the number of trainees in the training program and level of learning of the employee and how employee reflects what s/he has learned into his/her duties and responsibilities.

Hypothesis-12: Gender, Age and Seniority have an effect on the relationship between the choice of place where the training takes place and the level of learning of the employee and how employee reflects what he has learned into his/her duties and responsibilities.

The main purpose of this study is to show if there is a direct effect of individual differences (gender, age, seniority) on the relation between the training design and the training effectiveness by using the research data collected from a multinational company.

Figure 2: The Study Model



This figure represents the study model showing the relationships between the hypotheses specified above. The six boxes on the left represent main indicators of the training programs. The two boxes on the right represent the first two levels of Kirkpatrick's evaluation model. The relationships between these factors will be investigated based on age, gender and seniority.

Sampling Methods

A randomly chosen multi-national company that operates in many countries located in America, the Europe, the North Africa, the Middle East and the Far East countries is chosen as the basis of the statistical analysis. For the analysis, we divided the overall population of the organization with respect to department where the employee works. The chosen company mostly consists of sales and marketing employees. The “Layered Sampling method” is utilized such that from every department a specific number of employees are randomly chosen and taken into the sample. This is done based on the overall proportion of the specific department within the organization. In other words, every department is considered as a different layer of the overall organization. The analysis is carried out for different layers separately. Once the organization is considered as the population of the analysis, every department could be considered a subset of this population. To construct a sample that reflects the population, highly populated departments are given more weight in the sampling and more employees are selected from sales than marketing departments.

Once the organization is separated into different layers, the analysis was carried out for different types of training programs: corporate, personal development, organizational development and technical. The analysis was carried out for different types of training programs to generate better results. This was done because different training programs might require focus on different aspects of the training program.

The company chosen for this study consists of 293 employees in various locations of Turkey. There are 170 (58 % of population) employees in the sales department; 36 (12 %) in the marketing department; 33 (11 %) in the logistics department; 28 (10%) in the finance department and 26 (9 %) in other departments (HR, Customer Relations and legal departments).

The questionnaire was prepared in a digital format and the link is shared with the HR department of the company to be forwarded to the employees (white-collar only). Some 163 of the questionnaires were filled by the employees prior to the deadline (30 August 2013) producing a response rate of 55.6%. To control for data problems, 14 questionnaires were eliminated due to filling errors or incomplete answers. The final sample for use in this study included 149 questionnaire responses. Table-1 summarizes the main individual characteristics of the participants. According to the individual characteristics taken into consideration in this study, the sampling analysis has the following features.

Table 1 reveals that the main moderating individual factors of the trainees taken into consideration in this study varied sufficiently. Those moderating factors are age, gender and seniority measured in terms of years of experience. The sample includes an adequate number of trainees in every sub-category for every moderating effect: age, gender and seniority.

Table-1 Questionnaire Demographic Statistics

Questionnaire Demographic Statistics	Total	%
Gender		
Male	72	45%
Female	77	55%
Age		
18 - 25 Years Old	15	10%
25 - 35 Years Old	103	69%
Over 35	31	21%
Years of Experience		
Less than a year	3	2%
1-5 years	37	25%
Over 5 years	109	73%
Department		
Sales	64	43%
Marketing	33	22%
Logistics	13	9%
Finance	24	16%
Other	15	10%
Content of Training Program		
Technical	25	17%
Personal Development	28	19%
Corporate	51	34%
Communication, Team-based	28	19%
Other	17	11%
Education		
High school	0	0%
Vocational School	0	0%
Bachelor Degree	98	65%
Master Degree	49	33%
PhD	2	2%

This table shows the demographic characteristics of the sample of the study.

RESULTS

Reliability Analysis

The questionnaire consists of 43 questions based on a 5-point Likert scale. The questionnaire covers some personal differences to analyze their effect on the level of satisfaction and the level of learning of the participants. As the authors have designed the survey, there exists a need for reliability analysis before collecting the data.

The questionnaire analysis of this study consists of two parts based on Donald Kirkpatrick’s model of 4-Levels Evaluation of Training Programs. In the first part of the questionnaire, the reaction and level of satisfaction of the trainee about the corresponding training program is measured. In the second part of the questionnaire, the level of learning and degree of improvements in the abilities and skills of the trainee are measured. To carry out the questionnaire analysis in a reliable way, initially the “Reliability of the Questionnaire Analysis” is carried out. The widely used Cronbach’s Alpha test statistic is measured for the both first and second parts of the questionnaire.

As a result of reliability analysis, for the first part of the questionnaire, questions number 1, 4, 6, 7, 13, 16 and 21 are removed from the analysis. After removing these questions, The reliability value of Cronbach’s Alpha increased from 0.665 to 0.804. For the second part of the questionnaire, questions number 3, 4, 5, 7, 12 and 16 are removed from the analysis increasing the value of Cronbach’s Alpha from 0.727 to 0.802.

Validity Analysis

The next step is factor analysis to measure the validity of the questionnaire carried out, as the questionnaire passed the reliability analysis. Factor analysis for the first part of the questionnaire reveals the first part must consist of five factors including all 15 questions. More importantly, the questionnaire measures the degree of the satisfaction of the employees regarding the training programs by 73.25%. Some 73% of information regarding the satisfaction level of employees could be extracted from the first part of this questionnaire analysis. As this number is sufficiently high, we concluded the validity of the first part of the questionnaire is high as well.

The “component matrix” (Table-2) reveals the first part of the questionnaire analysis could be divided into five factors. For each question, the highest value obtained in the component matrix reveals the specific question should belong to the corresponding factor where the corresponding question gets the higher statistical value. Although the component matrix provides information about which question is related to each other, it does not actually affect the validity of the analysis but it specifies the number of factors needed to be considered.

Table-2: Component Matrix, First Part

	Component				
	1	2	3	4	5
Part1_Question_2	0.200	0.738	-0.170	.217	0.377
Part1_Question_3	0.435	0.128	0.517	.416	0.007
Part1_Question_5	0.802	-0.070	-0.310	-.234	-0.076
Part1_Question_8	0.446	-0.196	-0.407	.524	0.373
Part1_Question_9	0.542	-0.149	-0.255	-.447	0.077
Part1_Question_10	0.570	-0.180	0.344	.100	-0.221
Part1_Question_11	0.515	-0.349	-0.435	.342	-0.316
Part1_Question_12	0.402	0.383	-0.306	.406	-0.332
Part1_Question_14	0.859	-0.209	-0.019	-.105	0.158
Part1_Question_15	0.423	-0.397	0.555	.129	0.369
Part1_Question_17	0.452	0.358	0.365	.063	-0.426
Part1_Question_18	0.279	0.564	-0.003	-.221	-0.355
Part1_Question_19	0.844	0.090	-0.065	-.297	0.206
Part1_Question_20	0.180	0.830	0.064	-.072	0.347
Part1_Question_22	0.845	-0.056	0.224	-.109	-0.048

This table reveals that the first part of the questionnaire analysis could be divided into five factors.

Table 3 summarizes the factor analysis for the second part of the questionnaire analysis. The second element measures the validity of the questions of the employees regarding the learning phase, the second level in the 4 levels model of Kirkpatrick. Overall, the second part of the questionnaire provides validity information of 78.14% regarding the learning phase of the training. As this ratio is higher than 70%, we assumed that the second part of the questionnaire has high a validity to carry out the analysis.

According to the component table regarding the second part of the questionnaire, there must be also five factors for the second part of the study. Although the Component matrix is not directly related to the validity of the questionnaire, the component matrix implies that once the 15 questions of the second part of the analysis are taken into consideration, these 15 questions could be analyzed based on five main factors.

Independent Sample Tests

The Moderating Effect of Age: In this part, the aim is to understand moderating effects of age (an independent variable) on degree of satisfaction and the degree of learning of the employees. According to the moderating effect of age on the degree of employees’ satisfaction level about the training program based on the main determinants of the training program itself, no age effect was found out. The findings reveal

that none of the Chi-Square statistical values are statistically significant for any question. This finding implies that the null hypothesis of the age does not have any effect on the relation between training program determinants and training effectiveness.

Table-3: Component Matrix, Second Part

	Component				
	1	2	3	4	5
Part2_Question_1	0.085	0.241	0.432	0.707	-0.096
Part2_Question_2	0.806	-0.082	-0.082	-0.401	0.008
Part2_Question_6	0.545	0.611	-0.221	-0.020	-0.453
Part2_Question_8	0.837	-0.167	0.165	0.281	0.034
Part2_Question_9	0.279	0.545	-0.443	-0.171	0.410
Part2_Question_10	0.017	0.714	0.337	-0.299	0.097
Part2_Question_11	0.782	0.159	0.068	0.027	0.123
Part2_Question_13	-0.147	0.751	0.112	0.119	0.319
Part2_Question_14	0.636	-0.245	0.621	-0.120	0.055
Part2_Question_15	-0.061	0.374	0.050	0.768	0.204
Part2_Question_17	0.540	-0.333	0.454	-0.148	0.388
Part2_Question_18	0.294	0.550	0.288	-0.100	-0.604
Part2_Question_19	0.690	-0.033	-0.431	0.203	0.010
Part2_Question_20	-0.092	0.833	0.049	-0.266	0.185
Part2_Question_21	0.589	-0.051	-0.555	0.265	0.017

This table reveals that the second part of the questionnaire analysis could be divided into five factors.

The second part of the analysis (the reaction of the employees through the learning process and getting new skills and abilities) reveals that for some questions and considerations, there is a significant age effect on the relation between training determinants and training effectiveness. Question 9 investigates the effect if the trainee earns higher scores once the training program is compulsory. According to the results, younger employees agreed that if the training is compulsory, the learning process has a more positive for them. But, as the employee gets older, the compulsory training is regarded as less satisfactory. Regarding question 10, the age group of 25-35 does not strongly agree with the assertion that the compulsory training is more effective as much as the younger and older employees do. Moreover, question 20 asks if the short term oriented training programs generate higher scores for the trainee or not. The results show, the age group 25-35 does not agree with this statement. In brief, the age factor is highly influential on the relation among the duration of the training and training effectiveness, the relation between the obligation status of the training program and the training effectiveness regarding the second phase of learning outcome analysis.

Moderating Effect of Seniority – Years of Experience: Once the seniority effect on the training determinants and the training effectiveness is considered, analyses reveal that seniority is influential on the satisfaction and learning outcomes of the training program. The first part analysis reveals that seniority matters for the answers to questions of number 5, 9 and 19. Questions 5 and 19 assert that reaction of the trainee is more positive if the company evaluates performance of external trainers for the training. The results show that senior employees agree more with this assertion than less senior employees. Regarding question 9, the more senior employees are more satisfied with the compulsory training programs.

The mean results reveal that regarding question number 2, the most senior employees, with more than 5 years of experience, believe that they get better learning outcomes when training is carried out face-to-face with the trainer. Regarding question number 9, the most senior employees do not have a higher degree of agreement with the assertion that compulsory training program would generate better outcomes such as increasing the skills and abilities during the learning process than the less senior employees do.

Moderating Effect of Gender: Another moderating factor that this analysis investigates is the gender effect. The results show satisfaction of employees with the content, delivery method and other determinants of the training program are not dependent on the gender of the employees. This implies there is no difference

between the male and female employees regarding their level of satisfaction with determinants of the training program.

Next, we examine data regarding learning outcome-training program determinants. Gender is statistically influential regarding face-to-face training and internal trainers involved training programs. Both male and female employees strongly agree that face-to-face training and internal training programs instructed by organizational members are highly regarded as satisfactory. However, female employees agreed more strongly with these assertions. The results are summarized in Table 4.

Table 4: Summary of the Results

Level of Evaluation	Age	Gender	Seniority
1 st Level of Kirkpatrick Evaluation Model (Satisfaction)	No significant effect	No significant effect	More senior employees are more satisfied with “External trainers” and “Compulsory trainings”
2 nd Level of Kirkpatrick Evaluation Model (Perceived Learning Outcome)	Older employees perceive a lower learning outcome with “Compulsory trainings”.	The female employees perceive a higher learning outcome with “Face-to-face training” and “Internal trainers”.	Employees that are more senior perceive a higher learning outcome with “Face-to-face training.
	Age group of 24-35 perceives a lower learning outcome with “Short term training programs”.		More senior employees perceive a lower learning outcome with “Compulsory trainings”

This table shows a summary of the conclusions of the study.

CONCLUDING COMMENTS

This study focused on how individual factors have moderating effects on the relation between training determinants and training effectiveness. One multinational company operating in Turkey is chosen as the subject of the study. This study examines how the individual effects of age, gender and seniority, measured in terms of years of experience, affect the content and delivery method and training effectiveness relationship. The study focuses on the first two levels specified in the 4 level model of Kirkpatrick: the satisfaction, reaction of the employees to the training program, the learning process and outcome from the perspective of the employees.

The results revealed that age does not have a significant effect on the relation between the content and delivery method of the training program and the level of satisfaction of the employees. In other words, the satisfaction of the employees about the training program itself does not differ among the older and younger employees. However, the results show that the perception about the learning outcome changes based on employee age. As the employee gets older, the employee disagrees more with the idea that they could get higher scores once the training program is compulsory. On the contrary, the results also imply that employees belonging to the age group 25-35 more disagree about the effectiveness of the training program when compared to the younger and older age groups of employees. Finally, regarding the age effect, the age group of 25-35 disagrees more with the learning outcome of the short-term training programs than the younger and older employees do. The volunteerism and duration of the training programs could generate different learning outcomes based on age group. Why older employees think they have a better learning outcome if they choose voluntarily their trainings may be related may be because they already have had substantial fundamental (mandatory) trainings and they know it by heart. In addition, they may think they can evaluate themselves better than they can evaluate younger colleagues and they can choose the courses according to their needs and improvement areas without any push from the company.

When we compare this result with previous studies, we note that previous studies generally do not have a result showing the effect of age on the relationship between training determinants and training effectiveness.

Tai's study (2006) has a similar result with our study that there is no significant and direct effect of the age factor on the training effectiveness.

Another investigated factor is the "seniority" effect measured in terms of years of experience. Given the seniority level of the trainee in the organization, both levels of satisfaction about the training content and the learning outcome and reaction do change. Senior employees are strongly satisfied with the training programs where the trainers are outside of the organization. Indeed, as seniority increases, the training programs with external trainers are regarded as more satisfactory. As the seniority increases, the results also imply that compulsory training programs are regarded as more satisfactory. Regarding the learning outcome and training effectiveness, more senior employees perceive that face-to-face training generates better learning outcomes, better competencies, skills and abilities. More importantly, although the most senior employees are more satisfied with compulsory training programs, they do not agree that compulsory training would result in better learning outcomes.

Employees that are more senior are more satisfied with external trainers. This may be related with their long experience in the company. They know the company, and people inside the company. For this reason, they may need to see different faces and hear different perspectives from the external world. As internal trainers are from the same company, their mind-set, thoughts and even their knowledge have all been shaped with the current company's culture. External trainers may bring various ideas and perspectives from outside to in. Employees that are more senior also think that they can achieve a higher learning outcome if they get face-to-face trainings rather than other delivery types. Perhaps employees that are more senior need to have a closer contact with the trainer. In addition, they may not have enough motivation to learn new things by themselves. Group interaction and the presence of the trainer may increase their motivation for learning.

If we compare these results on the seniority effect with the previous studies, we note that our results are in line with them in some sense and contradicting them in some senses. For example, Lim and Morris (2006) assumed that both job satisfaction and the seniority of an employee are separate factors influencing the training effectiveness and training transfer. However, "the indirect possible effect" of seniority on the training effectiveness through its "direct effect" on the employee satisfaction about the training is not taken into consideration by the previous literature.

The final investigated effect is employee "gender". Employee gender is statistically insignificant regarding the relation between the content, delivery method and training effectiveness of satisfaction. In other words, the satisfaction with the training program does not change between the male and female employees regarding the design and determinants of the training program. However, the findings imply there is significant difference in how male and female employees perceive the learning outcome of the training program. Female employees agree more with learning outcome effectiveness of the face-to-face training programs than the male employees. The results also implied that female employees agree more on the effectiveness of the training programs carried out by the internal trainers such as managers, mentors and colleagues. The results of gender effects on the relationship between training properties and perceived learning outcome may be related to the need for communication by female employees. It may also be related with their preference for face-to-face training and internal trainer more than their male colleagues desire.

These conclusions are partly contradicting with some previous studies such as with the study of Santos and Stuart (2003). They concluded that demographic factors may not be as significant on the effectiveness of the training programs as assumed by the previous studies and researches.

To sum up, age and gender factors are found insignificant in the first level of the Kirkpatrick Model. This means the degree of satisfaction with the training program does not differ based on age and gender of the trainee. Seniority is the only factor affecting the satisfaction of the trainee. Senior trainees are more satisfied

with the training programs carried out by external trainers and the compulsory training programs. Regarding the second level of Kirkpatrick's model, all age, gender and seniority factors affect the perceived outcome of the learning process. When these results are compared to the findings of previous studies about the cases of training and development in other labor markets, these findings support some of the researches but contradict some others.

We hope these conclusions will help to training and development experts for designing and delivering better training by considering individual differences of the participants. Training and development experts should specifically consider age and seniority of participants when designing and executing training.

The results introduced in this article provide a useful guide for future research. However, it has some limitations. First, the study was completed in only one multinational company in Turkey. Future studies should consider more than one multinational companies or middle-and-small scale enterprises in order to arrive at broader conclusions. Secondly, this study investigated the effect of three individual differences (age, gender and seniority). Further researches may investigate the effect of other individual differences. Third, further researches may be done for the last two levels of Kirkpatrick's model to identify the effects of behavioral change and organizational performance.

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BIOGRAPHY

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CREATING EXECUTIVE MBA PROGRAM VALUE THROUGH DEMING'S NEW ECONOMICS PRINCIPLES

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ABSTRACT

The purpose of this research is to determine what Executive MBA Deans and Program Directors can learn from Dr. W. Edwards Deming specifically with many of the principles he discussed in The New Economics for Industry, Government and Education. (MIT, 1994). To determine this information, the current state of the Executive MBA sector will be examined along with select theories from Dr. Deming. Upon completing this research, conclusions will be generated as to the exact lessons, if any, that can be learned and potentially applied from this catalyst that ignited the quality revolution worldwide. The goal of this initial study is to determine if Executive MBA Deans and Program Directors can benefit from the "Deming Thinking" in order to move the Executive Education sector forward.

JEL: M1, M31, M200

KEYWORDS: Executive MBA, Deming New Economics Value, Graduate Management Education

INTRODUCTION

The Executive MBA sector is changing and evolving (Petit, Fall 2001). Recent trends including the steady and precipitous decline in full corporate financial sponsorship, which dipped to 24% in 2013, illustrate a major paradigm shift in the industry (EMBA Council, 2013). Business School Deans are further under immense pressure to grow tuition revenues and often view the Executive MBA as the cash cow product within the portfolio (Simmons, Wright and Jones, 2006). Furthermore, as will be illustrated within the literature review, Executive MBA Programs are also experiencing increased student expectations, perception issues and enrollment development challenges. With this as a background, the purpose of this research is to determine if Executive MBA Deans and Program Directors should incorporate, and to what extent, the principles that Dr. W. Edwards Deming discussed in The New Economics for Industry, Government and Education (MIT, 1994). With this as the focus, this paper will discuss the history of the Executive MBA sector, the current trends, select Deming Theories from The New Economics for Industry, Government and Education and the potential application of these theories.

LITERATURE REVIEW AND BACKGROUND

The Executive MBA - History

Executive MBA Programs are MBA degree programs targeted to current working managers in a cohort, time efficient and convenient format (Petit, Fall 2011). These programs, which incorporate a premium tuition pricing strategy, have significant "bells and whistles" beyond the traditional full time or part time MBA programs. This premium tuition pricing can be seen by the simple example that the tuition price for the Executive MBA Program at New York University Stern (\$163,000 in 2013) is equivalent to the price of a Porsche 911 Turbo S. ("Upfront, FT, October 21, 2013). Some amenities associated with Executive

MBA Programs are as follows 1.) convenient time efficient format, 2.) academic materials, 3.) food throughout the program, 4.) overnight accommodations for residencies, and 5.) technology.

The first Executive MBA Program was launched by the University of Chicago in 1943 (Petit, 2008). In 1954, Michigan State University, at the request of the "Big Three" automobile manufacturers, launched an Executive MBA Program for General Motors, Ford and Chrysler (FT 2010 Ranking). By the 1960s, Executive MBA Programs started to gain momentum as they not only allowed for the long term development of corporate employees but these programs also allowed these employees to keep their jobs while going to school (Petit, Fall 2011). By 1981, the Executive MBA Council was formed due to the growth of these programs worldwide (FT 2010 Ranking). In addition, over the next subsequent decades, the sector would witness significant growth within the United States and now abroad. Some programs now even include joint collaborations and partnerships with Business Schools across continents (FT 2010 Ranking). However, as stated previously, the Executive MBA sector is changing and evolving and the purpose of this next section is to illustrate these paradigm shifts.

Trends in the Executive MBA Industry

The original purpose of the Executive MBA was for "executives" to obtain the MBA in a time efficient and convenient cohort format and for students to receive full corporate financial sponsorship from their employer. Hence the premium tuition pricing strategy. In fact, full corporate financial sponsorship, at one point, was a requirement to obtain admission. (Petit, Fall 2011). However the environment has changed. The Executive MBA Council, which is the official international governing body for Executive MBA Programs, has measured the precipitous drop in full corporate financial sponsorship which can be seen in Table 1. More specifically, in 2001, 44% of all students enrolled received full financial sponsorship from their employer (2003 EMBA Council). In 2007, this figure declined to 34% (2011 EMBA Council) and in 2011, this figure further declined to 27% (2011 EMBA Council). Furthermore, in 2012, this figure was 25.9% (2012 EMBA Council) and in 2013, this figure further declined to 24% (2013 EMBA Council). As one can see, there has been a steady decline in full corporate financial sponsorship. Yet this precipitous drop has not had an impact on enrollment. In fact, enrollment for these programs has been growing over time on the international level (Petit, Spring 2012). More specifically, according to the 2013 Executive MBA Council Membership Survey, within the Uniform Group Analysis that examines the same groups of EMBA Programs from 2009-2013 (to factor out entering new members), the mean class size has only decreased one percent over a five year period (44.1% in 2009 to 43.3% in 2013). While full corporate financial sponsorship has been decreasing, there has been an increase in self sponsored (self paying) students which can again be seen in Table 1. More specifically, in 2001, 19% of all students enrolled were self financially sponsored (2003 EMBA Council). In 2007, this figure increased to 33% (2011 EMBA Council) and in 2011 this figure further increased to 37% (2011 EMBA Council). In addition, in 2012, this figure was 39% (2012 EMBA Council) and in 2013 this figure increased again to 41.2% (2013 EMBA Council) As one can see, students are encumbering an increased burden and responsibility for financing these programs. Such an indicator is a major paradigm shift in the industry. Please find a summary of this data in Table 1.

A second indicator that must be discussed are the increased student expectations that are a direct result of paying increasingly out of pocket (Petit, Fall 2011). For example, when companies were fully sponsoring financially, Business Schools did not offer career management services so as to not negatively impact the relationship with the sponsoring company with students departing for new jobs (Petit, 2011). Now Executive MBA students are demanding some form of career services and Business Schools are currently trying to meet this new expectation (Petit, Spring 2012).

Table 1: Executive MBA Industry – Sponsorship Trends

Year	Percent of Fully Financially Sponsored Students	Percent of Self Sponsored Students (Paying Out of Pocket)
2013	24.00%	41.20%
2012	25.90%	39%
2011	27.00%	37%
2007	34.00%	33%
2001	44%	19%

Source: *Executive MBA Council Annual Membership Program Surveys*

This is further reinforced in the 2013 Executive MBA Council Conference (October 2013) where “Career Services” was one of five Tracks of the Concurrent Sessions offered grouped with “Strategic Initiatives”, “Curricular Innovations”, “Operations Advancements” and “Globalization” (EMBA Council Conference Agenda, October 2013). In addition, since students are paying more out of pocket, they are increasingly critiquing the entire "EMBA Experience" inclusive of the curriculum, the facilities, and even the catering (Petit, Fall 2011). Such an indicator is major and must be taken seriously.

The third market indicator is how these programs are sometimes perceived. More specifically, there is a belief, by some, that Executive MBA Programs are "MBA Lite" as it takes only 20 to 22 months for executives with demanding jobs to complete the MBA while it takes full time students 18 months and part time students 36+ months (Shinn, July/August 2003). Some believe that the faculty assign less work in the compact EMBA class schedule as well as are easier on deadlines due to the profitability of such programs (Petit, Fall 2011). Either way, such a market perception cannot be positive and thus illustrates how the sector is changing and evolving. Lastly, it should be noted that the sector continues to grow however this growth is on the international level. More specifically, the 2007 Executive MBA Council Survey results indicate that 57% of programs were considering expanding with adding satellite programs worldwide. In 2010, there were more new Executive MBA Programs launched outside North America than within it which reaffirms this trend (EMBA Survey, 2010). Overall, there may be a saturation of Executive MBA Programs within the United States and Business School Deans, in search of new tuition revenue opportunities, are looking beyond North America (Petit, 2008). As a result, such an indicator is also significant within this sector.

Deming’s Theories - Dr. W. Edwards Deming: A Brief Biography

W. Edwards Deming (1892-1993) is known for igniting the quality revolution worldwide. He conducted a thriving international management consulting practice for over forty years within multiple and diverse industries (Deming, 1993, p. xiii). From 1950 until the 1980s, Dr. Deming, who was also known as the “Prophet of Quality” by *The New York Times*, worked extensively in Japan on the management of quality and his legacy includes significantly impacting the economy of this nation (Deming, 1993, p. xiii). Dr. Deming was also the author of several books including *Out of the Crisis* (MIT, Center for Advanced Engineering Study, 1986) and *The New Economics for Industry, Government and Education* (MIT, 1994) along with 171 papers (Deming, 1993, p. xiii). Dr. Deming received multiple industry awards including The National Medal of Technology, the Distinguished Career in Sciences Award from the National Academy of Sciences, the Shewhart Medal and the Second Order of the Sacred Treasure awarded from the Emperor of Japan in 1960 (Deming, 1993, p. xiv). In addition to his doctorate from Yale University, Dr. Deming received over fifteen (15) Honorary Doctorates (honoris causa) inclusive of Harvard University and Yale University. Dr. Deming also led four (4) day executive education seminars which had 10,000 participants per year for over ten years (Deming, 1993, p. xiv).

Overall, the impact of Dr. Deming's revolutionary ideas have been compared to Copernicus, Darwin and Freud and he has been noted as "fathering" the third phase of the industrial revolution (The Deming Institute, "The Man").

Select Deming Theories (The New Economics)

Dr. Deming believed in the management of quality. He defined quality as follows: "A product or service possesses quality if it helps somebody and enjoys a good and sustainable market" (Deming, 1994, p. 2). He believed quality is the responsibility of management and thus poor management infects the entire organization (Orsini, 2012). Dr. Deming further believed in the importance of managing a system and knowledge of a system (Orsini, 2012). He believed in the interdependent nature of a system and that management must ensure all employees understand the aim and interdependence of that system. Dr. Deming further believed that a system needs an outside view to fully transform itself since the system cannot fully understand itself otherwise. He discussed the beautiful music of a symphony as a true interdependent system (Deming, 1994). In addition, Dr. Deming believed in a System of Profound Knowledge which includes Appreciation of a System (previously discussed), Knowledge About Variation, Theory of Knowledge and Psychology (Deming, 1994). This thinking and its application to higher education can be seen below.

The prevailing style of management in higher education must undergo transformation. This transformation means change of form, shape or appearance. Perhaps a better word to use is the Greek word metanoia which means penitence, repentance, reorientation of one's life or spiritual conversion. This transformation requires an understanding of the system of profound knowledge and the application of its principles in every kind of relationship between individuals. The system of profound knowledge includes an appreciation for a system, knowledge about variation, theory of knowledge and psychology.

(Maguad, 2011)

Knowledge About Variation is the importance for management to understand the distinction between common sense causes for variation and special causes for variation. Theory of Knowledge indicates that rational prediction requires theory based on observation and thus information in and of itself is not knowledge (Deming, 1994). Lastly, the importance of Psychology rests on understanding people and their intrinsic verse extrinsic motivations. Dr. Deming further believed in cooperation verse competition among organizational units and even competitors. Such cooperation among functions will allow an interdependent organization to truly thrive. Such cooperation among competitors will allow for an industry to grow and expand its parameters (Deming, 1994).

Dr. Deming further developed various theories on "Deadly Diseases" that are within all industries and are causing "waste and losses". For the purposes of this research, the four "Deadly Diseases" that will be discussed are as follows 1.) Constancy of Purpose, 2.) Emphasis on Short Term Profits, 3.) Mobility of Management, and, 4.) Use of Visible Figures Only. In terms of Constancy of Purpose, Deming believed that organizations either did not have or have lost sight of their Constancy of Purpose and true aim (Deming, 1994). Emphasis on Short Term Profits, according to Deming, leads organizations to worship the "quarterly dividend" which inevitably leads to short term thinking and no long range planning (Deming, 1994). Mobility of Management is also a pervasive problem, according to Deming, as leaders do not truly understand customers and intricacies of a company as they do not have a history with the

company (Deming, 1994). The Use of Visible Figures Only alludes to the fact that management does not take into account difficult to measure indicators when formulating strategy. Such indicators can include the true impact of a happy verse unhappy customer which can have a significant and an immeasurable impact on a brand (Deming, 1994). Lastly, Deming believed that the customer, while a rapid learner, knows nothing and only expects what you and your competitors have led this person to expect. In addition, questions such as "what business are we in" as well as "what business will we be in five years from now" should be continually asked by management (Deming, 1994)

DATA AND METHODOLOGY

An analysis of the trends of the Executive MBA sector will be presented. In addition, select philosophies of W. Edwards Deming will also be presented. An analysis and discussion will ensue on how the "Deming Thinking" can potentially add value to a sector that is changing and evolving.

RESULTS AND DISCUSSION

Upon illustrating the current trends of the Executive MBA industry as well as select theories of Dr. Deming specifically from *The New Economics for Industry, Government and Education*, it appears that the "Deming Thinking" can potentially add value to Executive MBA Deans and Program Directors in moving the sector forward.

It would appear rational and proactive for Deans and Program Directors of Executive MBA Programs as well as Deans of Business Schools to continually ask "What business are we in now?" and "What business will we be in five years from now?" The market trends discussed, especially the dwindling level of corporate financial sponsorship, potentially illustrate a sector and market susceptible to change. Areas such as cost structure of programs coupled with the future role of distance and blended learning are sample directions that the industry can follow. Interestingly, a recent poll completed by Executive MBA graduates from the Class of 2010 (N=1,080) has indicated that an Executive MBA degree cannot be "successfully replicated online" ("Upfront, FT, October 21, 2013). However, the role of online and blended learning within Executive MBA Programs still needs to be determined. Therefore, proactively addressing these sample ideas can allow an institution to take the lead on the direction of the sector as opposed to operating status quo. In addition, Dr. Deming's views on the customer "knows nothing" and only expects what we have led this person to expect can also be applied. For example, the major paradigm shifts within the Executive MBA sector can allow the Executive MBA Product to move in an entirely new direction. A new strategic and planned expectation can then be set with the customer (i.e. current and prospective students) since he or she is a "rapid learner". Proactively repositioning the new expectation can allow an institution to be a market and thought leader as opposed to a follower. So long as the newly repositioned product possesses "quality" and thus "helps somebody and enjoys a good and sustainable market" then this would be very positive.

In terms of competition verse collaboration, it would make sense, in some ways, for Executive MBA Deans and Directors from competitor schools to collaborate more frequently. Dr. Deming stated that ..."It is easy to manage a business in an expanding market and easy to suppose that economic conditions can only grow better and better" (Deming, 1994, p. 4). With that said, it is easy or easier to potentially manage an Executive MBA Program in an expanding market. As a result, collaboration among all "Executive MBA Stakeholders" could potentially be helpful especially in a contracting market. More specifically, at this moment, the research has indicated that the Executive MBA growth has matured within North America. It would appear that now more than ever Executive MBA Deans and Program Directors do not have a choice but to collaborate more frequently in order to expand the parameters of the sector. Without this additional cooperation, Business School would be left fighting for a mature finite market of prospective students.

System of Profound Knowledge

Furthermore, Dr. Deming's views on the System of Profound Knowledge can also be useful to current Deans and Program Directors of Executive MBA Programs. The System of Profound Knowledge, as previously stated, has four components including Appreciation of a System, Knowledge About Variation, Theory of Knowledge and Psychology. In terms of Appreciation of a System, Executive MBA Deans and Program Directors as well as Deans of Business Schools must ask what role these programs play within the system of a Business School and University. Since interdependence is a critical element of any system, Deans' of Business Schools must communicate effectively how each function and unit is interdependent among the faculty, administrators and staff of an institution. A true understanding of this interdependence can allow a Business School to operate more effectively as a whole. Otherwise, each program (full time, part time and EMBA) would potentially operate independently and in a silo which is not in the best interest of a Business School. The Appreciation of System is very welcomed for Executive MBA Deans and Program Directors.

Knowledge About Variation is also important and useful for Deans and Program Directors of Executive MBA Programs. These professionals must realize that there will always exist common sense causes as well as special causes for variation especially with targeted enrollment goals. So long as these individuals can achieve targeted enrollment goals with slight variation it would be in the best strategic interest of a program. Distorting the reasons for variation and then trying to lessen the gap of variation by admitting students who do not meet the admissions criteria can have a long term negative impact on a program. For example, current enrolled Executive MBA students who meet the admissions criteria may become angered and think less of a Business School and brand, if a percentage of students within their cohort do not meet the criteria (Petit, 2012). Theory of Knowledge can also allow Executive MBA Deans and Program Directors to make rational predictions based on observation. This observation can include not only data and statistics released by the Executive MBA Council but also discussions with current and prospective students as well as with Human Resources and other corporate professionals who support these programs on various levels. In addition, Psychology is important as it will allow Executive MBA Deans and Program Directors to understand the differences between intrinsic and extrinsic motivation especially with igniting intrinsic motivation within all Executive MBA stakeholders inclusive of prospective students, current students, faculty, staff and alumni.

Deadly Diseases

In terms of the select "Deadly Diseases", Executive MBA Deans and Program Directors can learn some lessons. For example, in terms of Constancy of Purpose, the administration of a Business School must ask what is the purpose of having an Executive MBA Program within the portfolio and what is the aim of the program? At many institutions, as stated previously, Executive MBA Programs are considered a "cash cow" product within the portfolio. Are there other reasons, besides their profitability, for Business Schools to offer Executive MBA Programs? Some additional reasons for offering such programs can be for the executive contacts that are made, the potential for increased indirect resources as well as a platform for the faculty to teach to this professional level. Either way, a Business School must understand its entire purpose of offering such a program and the specific aim of the program. Emphasis on Short Term Profits, as a Deadly Disease, can certainly hit home for Executive MBA Deans and Program Directors. Short Term Profits, within the scope of Executive MBA Programs, can be applied to tuition revenue for the current fiscal year as well as the current ranking of a program (Petit, 2012). There could be a belief that if enrollment goals are met this fiscal year and we are currently ranked than the program is in fine shape. Unfortunately, such a mindset, as Deming indicated, can lead to short term thinking and no long range planning. Emphasis on Short Term Profits can also lead an Executive MBA Dean and Program Director to admit students not fitting the admissions criteria in order to meet the targeted enrollment goals. Such actions, as previously stated, are not in the best long term interest of a program.

The third "Deadly Disease" of Mobility of Management can also teach some key lessons especially within the Business School sector. *Forbes.com* recently indicated that within the Top 40 Business Schools, 25% of Business School Deans have been replaced over the passed year and 38% of current Deans have been in their positions less than two years. (Symonds, May 13, 2009). Furthermore, AACSB recently reported that on average Business School Deans have been in their positions only about five years and 25% have been in their positions three years or less while another 25% have been in their positions less than a year. (Alsop, April 20, 2004). The *Financial Times* also reported that the 2011-2012 AACSB Dean's Survey indicated that the average Deanship of the United States based Business Schools was 5.73 years and the median was four (4) years (Bradshaw, October 21, 2013). Overall, the Mobility of Management may be a significant issue within Business Schools thus directly or indirectly impacting Executive MBA Programs.

The final "Deadly Disease" that will be discussed is the Use of Visible Figures Only and this can certainly impact Deans and Program Directors of such programs. As stated previously, some visible indicators of Executive MBA Programs are current and future enrollments as well as current rankings. Yet there are other indicators that are difficult or unknown to measure that can have a potential significant impact on a program and examples include 1.) faculty/student interaction and exchange, 2.) culture of an Executive MBA Program (collaborative verse competitive), 3.) seamless administrative processes (invoices, registration), and 4.) visibility of management on-site (Petit, 2012). Each of these difficult or unknown to measure indicators can potentially have a profound impact (positive or negative) on the EMBA experience of a student. However one can potentially assume that such indicators are not taken into consideration during the strategy formulation process for programs. Perhaps Executive EMBA Deans and Program Directors should not only strategize about the visible indicators (rankings/enrollments) but also the difficult to measure indicators. In order to do so, support will be needed from the top as some difficult or unknown to measure indicators are more long range in terms of their impact (Petit, Spring 2012).

CONCLUDING REMARKS

The goal of this research was to determine what Executive MBA Deans and Program Directors could learn from Deming's *The New Economics for Industry, Government and Education* (MIT, 1994). In order to accomplish this goal the history of the Executive MBA sector along with the current trends were discussed. In addition, select frameworks from Deming's text were introduced and a qualitative analysis ensued on its applicability for the betterment of the sector. The findings of this study indicate that Executive MBA Deans, Program Directors and Business Schools can certainly benefit from the Deming Thinking particularly in the areas such as The System of Profound Knowledge and the Deadly Diseases. In terms of the limitations the study systemic interviews from Deans and Program Directors of Executive MBA Programs should be conducted to reaffirm the findings. Future study in this area should include the Deming Frameworks inclusive of the potential ills of short term thinking on the sector.

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INTRODUCING THE CONCEPTS OF SUSTAINABILITY AND CORPORATE SOCIAL RESPONSIBILITY TO ACCOUNTING STUDENTS

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ABSTRACT

Business majors are future business leaders. As faculty, we have a responsibility to educate these students on important topics such as accounting, marketing, finance, shareholder value, corporate governance, etc. However, I also believe that we have a responsibility to educate our students in areas such as ethics, corporate social responsibility, and sustainability. Many top business programs around the country are making these topics part of the curriculum. Sustainability is an issue that is relevant to every person and is vital to the continued existence of the planet. This paper documents the effects of an in-class presentation and exercise designed to introduce accounting students to the concepts of sustainability and corporate social responsibility.

JEL: M40, Q56

KEYWORDS: Sustainability, Corporate Social Responsibility, Accounting Education

INTRODUCTION

Sustainability is an extremely important issue that affects everyone. In fact, it is vital to the continued existence of our planet. Sustainability is often defined as “the long term maintenance of well being” and it includes using resources responsibly. The Environmental Protection Agency defines sustainability as the ability to “... meet society’s present needs without compromising the ability of future generations to meet their own needs” (see <http://www.epa.gov/sustainability>). Sustainability has environmental, social and economic dimensions. Corporate Social Responsibility (CSR) can be defined as a business taking responsibility for the effects of its actions on the environment, consumers, investors, employees and the community.

As a business professor, I am concerned that our future business leaders are getting little to no education about sustainability and CSR issues. This paper describes a method that I use to integrate sustainability and CSR into accounting courses so that business majors are exposed to these important concepts as undergraduates. While I understand that most colleges and universities are not in the position to dramatically change the core of their business education, I do feel that they can take some steps to ensure that business students are exposed to sustainability issues during their business courses. I have successfully implemented modules covering the issues of corporate social responsibility and sustainability into my accounting courses. This paper describes the use of cases/exercises that can be integrated into existing accounting courses. I have found that after students are exposed to this topic, they have an increased understanding of the role of corporate social responsibility and also the students find the topic to be interesting. Students also anticipate significant job growth in the area of corporate social responsibility in the next ten years and feel that sustainable practices will be profitable in the long run for companies. Students strongly felt that corporate social responsibility/sustainability is important for business leaders.

The remainder of the paper is organized as follows. First, I present a review of the prior literature. Then, I discuss the method I used to incorporate sustainability into accounting courses at my university. Next, I present the results of a survey I administered to students in order to gauge the impact of the sustainability and CSR exercise. Finally, I discuss the implications of the paper, with conclusions and suggestions for future research.

LITERATURE REVIEW

Jabbour (2010) discusses the responsibility that institutions of higher learning have to research and educate students on sustainability issues. Fleishman and Schuele (2006) note that accounting education in the United States has not been successful in communicating to students that environmentalism is an issue for them as they face serving the public interest as well as consider the well being of the clients and stockholders that they serve. They suggest that accounting students should be exposed to “green accounting” at the undergraduate level. McKenna and Biloslavo (2011) go as far as to suggest that business education should be changed so that global sustainability is the core and economic sustainability is a subset. They suggest that business schools need to take some responsibility for the corporate scandals of the 1990’s and the financial collapse of the economy that started a few years ago and is rippling throughout the world. They argue that business education needed to be fundamentally reshaped so that profits are not the only focus.

Botes et al. (2014) investigated perceptions of both academics and graduates about the sufficiency of sustainability education in New Zealand. They find that both groups perceive a lack of sufficient depth in the extent and adequacy of sustainability education. In addition, they note an agreement that sustainability reporting should be included in accounting courses and that accountants have a role to play in sustainability reporting. All of the lecturers interviewed by Botes et al. (2014) indicated that accounting has a role to play in sustainability reporting. Seventy-two percent of graduates interviewed by Botes et al. (2014) agreed or strongly agreed that “Accountants should be part of business-wide teams that lead the way on sustainability reporting.” Some schools have been successful in creating more sustainability courses.

For example, Schwering (2011) notes that business educators can play a key role in fostering ecological awareness and corporate environmental responsibility. He also suggests the need for research to measure whether specific types of environmental and sustainability education in business courses are effective. Springett (2005) describes his postgraduate course in which his goal is to increase students’ understanding, values and action skills to work with others to improve the quality and sustainability of their natural and social environments, as well as to help students become informed, committed and active citizens capable of adopting a change-agent role in life and employment. Gundlach and Zivnuska (2010) describe an approach that they have used in business courses in which they bring an experiential learning approach into the classroom to teach triple bottom line accounting and sustainability. Marshall and Harry (2005) describe a course offered at Portland State University called “Global Business and Sustainability,” in which the interaction among economic, social and environmental issues is stressed. One goal of the course is to have students be able to better anticipate and manage a global corporation’s social and environmental issues. Von der Heidt and Lambertson (2011) note that sustainability skills are needed by managers and that both undergraduate and graduate business programs can incorporate these issues into their formal curriculum. They present a detailed examination of the sustainability curriculum at their university.

A study of the top 50 Global MBA programs revealed that a majority of the schools require the coverage of ethics, corporate social responsibility and/or sustainability (Christensen et al. 2007). Clearly, these topics are important to educators at top business schools, and their importance is likely growing each year. A recent study finds that audit client size and strength of corporate government have a significant effect on the decision to produce a sustainability report (Kend, 2015).

DATA AND METHODOLOGY

I developed a presentation and exercise for an introductory level Accounting course. Since all business majors should need to take at least one accounting course, this presents a great opportunity to expose all business majors to sustainability and CSR issues and integrate sustainability and CSR into the business curriculum at any college or university. The presentation and exercise is interactive and covers triple bottom line accounting (people, planet, profit); the Global Reporting Initiatives Framework (a globally accepted framework for expanded disclosure and reporting); and current practices in sustainability and sustainability reporting. The goal was to determine how students reacted to this type of presentation and exercise and document how students felt about these issues after being exposed to them.

When this presentation and exercise was used in the classroom, I found that the students were interested in the topic and many were surprised to learn that in a recent survey by KPMG, half of the executives surveyed indicated that they thought sustainable practices would definitely improve profitability for their companies. In the presentation, we discuss three needs for businesses: the need for financing solutions that will allow the longer term benefits of sustainability to compete with other programs with a higher short-term payback; the need for common measures, and underlying systems that produce credible information, to analyze the impact of sustainability programs; and the need for a clear and rigorous international framework of regulation within which companies can plan with confidence. In the presentation, I also note that, according to KPMG (KPMG, 2013), 93% of the world's biggest 250 companies issue some type of corporate responsibility report. KPMG also notes that it is becoming standard practice to have external assurance on corporate responsibility reports. I like to point out to my students that there will be a need for professionals to be able to provide this kind of assurance service.

As part of the exercise, we examine several examples of disclosures made in these reports and we also noted that many companies hire an external accounting firm to attest to the CSRs. We conclude by examining an example of an external accounting firm attest report on a CSR and noting that the opportunities for business professionals in the area of sustainability will be expanding more and more. Based on informal feedback from both students and faculty, the presentation and exercise has been well received. Faculty indicated that they themselves were interested in the topic, had learned from the presentation, and would like to incorporate this into their classes in the future.

RESULTS AND DISCUSSION

To formally measure the effect of this presentation and exercise, in the spring semester of 2013, I surveyed the classes exposed to the presentation and exercise and then also surveyed classes not exposed to the presentation and exercise as a control group. Students exposed answered ten questions with a response from 1 to 5 where 1 is "strongly disagree" and 5 is "strongly agree." Please see Table 1 for the results of the survey. Survey results indicate that the presentation and exercise was informative and effective and that students exposed had an increased understanding of the role of corporate social responsibility and also find the topic to be important. As evidenced by Table 1, students' understanding of corporate social responsibility/sustainability increased after the class exercise (Q1: mean response of 4.14). It is also important to note that students felt strongly that corporate social responsibility/sustainability is important for business leaders (Q3: mean response of 4.76). Responses indicated that students' understanding of corporate social responsibility and the role of the independent accountant in reporting on sustainability increased after the class exercise.

Table 1: Survey Results

Question	Mean	Standard Deviation
1 My understanding of the role of corporate social responsibility/sustainability has increase after hearing the presentation	4.16	(0.677)
2 My understanding of “triple bottom line” accounting has increased after hearing the presentation	4.17	(0.943)
3 I feel that corporate social responsibility/sustainability is important for business leaders	4.76	(0.465)
4 I feel that sustainable practices will be profitable in the long run for companies	4.60	(0.610)
5 It is important to have reporting standards in place for sustainability measures	4.48	(0.737)
6 It is important to have assurance standards in place for independent accountants to issue reports on sustainability measures	4.54	(0.591)
7 My understanding of corporate social responsibility increased after hearing this presentation	4.27	(0.807)
8 There will be significant job growth in the area of corporate social responsibility in the next 10 years	4.33	(0.741)
9 Corporate social responsibility/sustainability is a waste of time	1.57	(1.027)
10 My understanding of the role of the independent accountant in reporting on sustainability has increased because of this presentation	4.22	(0.870)

This table shows the results of a survey administered to accounting students after they participated in a class session on sustainability and corporate social responsibility. Questions were answered on a scale from 1 to 5, where 1 = Strongly Disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5 = Strongly Agree.

Another exercise that is useful in business courses involves using the real world example of Starbucks. Starbucks’ Global Responsibility Report can be used as an example and examined in detail, including the Independent Assurance Report from the external accounting firm Moss Adams. The exercise can include a requirement for students to read a recent article from the *Journal of Accountancy* titled “The Assurance Market for Sustainability Reporting” (May, 2013). The students are required to complete a case study in which they select a company that publishes a CSR and then answer a series of questions on the CSR and the related report from the accounting firm. This is an excellent opportunity to continue the study and dialogue about sustainability into an upper-level accounting course such as Auditing and Corporate Governance.

CONCLUDING COMMENTS

The purpose of this paper was to document the effects of incorporating sustainability and Corporate Social Responsibility issues into an accounting class. By having all of our business majors begin to think about sustainability, we are helping them on the path to becoming better corporate citizens and responsible business leaders. This can only benefit the students themselves and also society in general. I recommend that all introductory level accounting courses include at least one exercise on sustainability and the accountant’s role in corporate social responsibility. I also recommend that other business classes incorporate similar issues. Small steps like these can be the beginning of big change and have the potential to affect how our future business leaders think. Future research can further examine how academics can integrate the important issues of corporate social responsibility and sustainability into business courses, at both the undergraduate and graduate levels.

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STUDENTS SOCIAL RESPONSIBILITY INITIATIVES AND IMPACT ON UNIVERSITY PERFORMANCE: AN EMPIRICAL STUDY FROM LEBANON

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ABSTRACT

Social responsibility is a common path to go which will give the competitive advantage to the universities and students. Students create the basis for university social responsibility, yet the universities are responsible for developing and fostering the students towards being responsible. The purpose of this paper is to answer the question if the initiative towards social responsibility should be driven by the students or universities management. The current research study seeks the impact of the university social responsibility initiative laid on the performance of the universities and also on students. An appropriate sample size of 350 potential candidates currently enrolled and graduates were selected for the online survey by using SurveyMonkey. The study design was quantitative, and the questionnaire was used as data collection tool. The response of 200 sampling subjects was submitted. The questionnaire constituted the demographics information as well as itemized variables measured on 5 Point Likert scale. SPSS 19 has been used for statistical analysis. Findings of the results were calculated by applying frequency and correlation tests. The results showed that social responsibility initiatives and steps have significantly strong and positive relationship in boosting overall performance of the university. The current study suggested that the academicians should consider it to incorporate it in the study courses.

JEL: M140

KEYWORDS: University Social Responsibility, Social Responsibility, Personal Responsibility, Students' Initiative, Motivation, Universities

INTRODUCTION

The basic concept of University Social Responsibility (USR) constitutes the importance of students. In general terms, USR constitutes the thinking and learning as well as behavioral pattern of people to focus beyond themselves and initialize caring attitude about their environment. Universities have to tell their students about current issues and make them aware of it. It would not allow the students to close their eyes for their surroundings as they did in the past and till now. There is a dire need to bring paradigmatic change in the university's thoughtfulness and their structure.

USR is a diversified concept and a common definition has not been yet presented. Due to the wide range of the subject, there are many barriers in the way of understanding USR and reaching a pinpointed clear understanding. The lack of financial resources, awareness and interest, the misconception that everyone knows already about the problems, the absence of quality control, the exclusion of students who cannot afford extremely high tuition fees (everybody should get chance of education) or even the lack of information for students and also parents about the possibilities.

Furthermore, there are in general two major challenges: there is no financial investment due to economic crisis exists in Arab nations; either there exists diversified groups with variations in their problems and needs a practical solution but till now none of the general solution has been found. There is a need for to bring change in university's school of thought and mindset that leads to proactive USR results in controlling, monitoring as well as ensuring it to be the integral part of daily life which in future will become a habit.

In this study, the research question focuses that should students' initiative towards social responsibility be self-motivated or should it be driven by the universities' management?"

This research study has the following research objectives: 1:) To check the motivational level and constructive performance of students in universities actively involves in social responsibility. 2:) To understand the role of USR in student's personal development. 3:) To verify students awareness towards universities initiatives taken in Lebanon.

LITERATURE REVIEW

Corporate social responsibility is a wider concept which not only focuses on the company's obligations towards the society. Other than the corporate sector, educational institutions especially universities are socially responsible for bringing up the change till the roots of the society. The importance of developing social and personal responsibility in universities and colleges is not a new concept. Already in the 1940s, there have been studies which emphasize on the importance of raising awareness among the students, faculty and universities and educational institutions administration (Reason, 2013).

Corporate social obligation has been characterized by numerous creators, establishments and enterprises differently due to its dimension measurement nature. On the other hand, Parliamentary Joint Committee on corporations and financial services (PJC, 2006) characterized CSR as "the company considering, managing and balancing the economic, social and environmental impact of its activities". Munasinghe and Kumara (2013) clarified that CSR offers organizations a methods by which they can oversee and impact the disposition and view of their partners, building their trust and empowering the advantages of positive connections to convey business focal points.

Barnett (2007) contended that CSR prompts reliability that fortifies the association with essential partner, in this manner diminishing the exchange cost and prompts monetary benefit. Furthermore, CSR prompts benefit as set by numerous researchers (Beurden and Gössling, 2008; Boaventura, Silva, and Bandeira -de-Mello, 2012; Margolis and Walsh, 2003; Orlitzky, Schmidt, and Rynes, 2003). A few researchers trusted the relationship in the middle of CSR and corporate money related execution (CFP) is negative (Brammer, Brooks, and Pavelin, 2006; Wright and Ferris, 1997) and some few trusted that the relationship is nonpartisan (Fauzi and Idris, 2009; McWilliams and Siegel, 2000).

The core concept arises from the thought that "Educating the mind without educating the heart is not education at all"- Aristoteles Social responsibility is an ethical ideology that proposes that an individual or an organization has an obligation to act to benefit society at large (Brodeur, 2013). A company's awareness of other's expectations towards social groups keeping also earth (both biological also social) to which it works, known as corporate social obligation. Organizations express this citizenship through: 1:) Waste and contamination diminishment courses, 2:) Helping instructive also social programs, 3:) Procuring sufficient returns on the utilized assets.

Christian (2004) characterizes CSR Likewise "a totally voluntary, corporate driven activity will Push oceans an substitute to regulation during whichever An national or global level". Dusuki and Dar (2005) contended that Corporate Social Responsibilities layout the standard of conduct to which a firm must

subscribe to effect society in a positive and a beneficial way in the meantime as keeping qualities which prohibit benefit looking for at any cost.

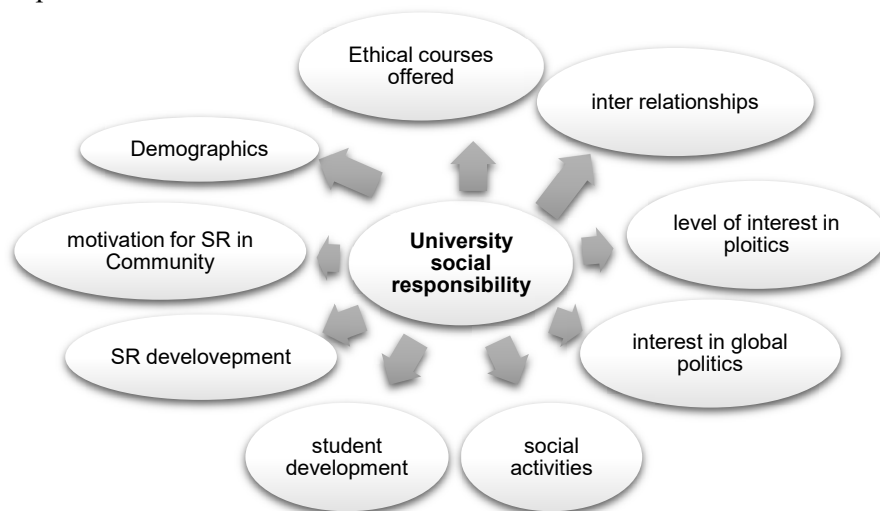
Colleges and universities have a considerable impact on the development of student’s personal and social responsibility (Sibbel, 2009). Furthermore, students go to college with high expectations of the enhancement of their self-understanding and self-development. The awareness about the importance of teaching and transmitting social and personal responsibility to the students is core of USR, but gap still lies between how it should be taught and practiced at campuses (Dey & Associates, 2009; 2010a; 2010b).

The concept of Personal and Social Responsibility (PSR) was introduced by Knepfelkemp and Hersh which was later redefined by Dey and Associates (Reason, 2013). According to Hill and his colleagues (2003), presented an exact definition of CSR is hard to pin down because beliefs and attitudes about the nature of the relationship between business and society fluctuate with the relevant issues of the day.

The PSR is divided into five dimensions: 1:) Striving for excellence, 2:) Cultivating academic integrity, 3:) Contributing to a larger community, 4:) Taking seriously the perspective of others and 5:) Developing competence in ethical and moral reasoning and action (Boyd & Brackmann, 2012; Glass, 2013; Ryder & Mitchell, 2013).

The knowledge given to the students in the university is to not only equipped of the technical skills but also to make them socially responsible students so that they might not engage in activities known to improve civic knowledge and skills at acceptable rates, even with increased attention on civic learning and community engagement (McTighe Musil, 2012). On the basis of extensive literature review and theoretical foundations Figure 1 presents the conceptual model to study the impact of USR initiatives on University Performance.

Figure 1: Conceptual Model



METHODOLOGY

The current study follows the quantitative approach and cross sectional in nature. The study is survey based. The population of study was the current and graduated students of Lebanese Universities. The questionnaire consists of how USR practices are implemented in a specific university in Lebanon.

An appropriate sample size of 350 potential candidates currently enrolled and graduates were selected for the online survey by using SurveyMonkey that was conducted during January 2015. The study design was quantitative, and the questionnaire was used as data collection tool. The response of 200 sampling subjects

was submitted (response rate: 57%). The questionnaire constituted the demographics information as well as itemized variables measured on 5 Point Likert scale. SPSS 19 has been used for statistical analysis.

For the research quantitative data was used, divided into demographic variables measured on categorical scale and items of variables measured on Likert scale. The demographic variables were used to distinct the group whereas the Likert scale questions were used to answer the research question.

The questionnaire was distributed online via SurveyMonkey and responses were approached through LinkedIn, Facebook and WhatsApp. The age of the respondents varies including 18.3% between 18 and 21, 50.7% between 21 and 26 and remaining 22% were above 26. There were 56.6% participants were male and remaining 43.7% were female. In general it is normally distributed for a demographic variable.

Most of the participants (60.6%) already graduated from university. On the contrary, the least are juniors with 8.5%. In general the response of sophomore (9.9%) and junior students is respectfully lower than the one of senior students (21.1%). This can also be related to the distribution of age which shows the least amount of participants is in between 18-21 years old. About two thirds of the participants are either enrolled or have already graduated from a Bachelor's degree while one third is enrolled or graduated from a Master degree.

RESULTS AND DISCUSSION

After reaching a certain amount of responses to have a reliable sample size, the outcome was analyzed according to frequency and correlation to test the relationship between the variables. This reflects the general behavior of society that more people get a Bachelor's degree than Master's degree. More than 61% agree and totally agree that they have a pre-existing idea about social responsibility representing that most of the sample was aware of the meaning of social responsibility. The majority of the respondents totally agrees (50.7%) and agrees (33.8%) that colleges are an important factor for student's development. Only 4.2% totally disagree showing the high percentage of agreement and total agreement leads to the insight that students and graduates are aware of the importance which colleges play in their development (Graphs in Annexure A).

The majority, with 52.1%, agrees that their university takes action to help the students to develop social and personal responsibility and universities already take steps to develop students' social and personal responsibility but there is room for improvement as the relatively high percentage in disagreement shows. To the statement if professors motivate students to grow beyond themselves, 55% either totally agree or agree whereas 23.9% totally disagree or disagree. 21.1% are indifferent.

The distribution of this question can be related to the fact that respondents visit different universities and the quality of professors differ. Moreover, motivation also depends on the person himself. The majority of participants (56.3%) totally disagrees, disagrees or is indifferent to the statement if university motivates them to participate in the community. This brings up the conclusion that universities have to improve in this field and encourage students to get actively involved in the community.

A large majority with 63.4% totally agrees or agrees that the respondents usually participate in social activities and can be interpreted that the motivation to participate in social activities or the community derives from the students themselves, neither than from universities. The majority of the sample has had the chance to take one or more ethical courses (57.8%) which leads to the assumption that the quantity of offers of universities is sufficient but there is a lack of quality shown in the previous questions, where participants showed that they don't feel motivated to get actively involved in social responsibility activities. The distribution is more or less equal for every answer criteria. This could be due to the fact that participants might have had chances to take courses outside but did not take them. Another explanation is that

respondents do not want to spend free time on social responsibility due to a lack of recognition in the importance of this issue. Moreover there could be a difference in the offering of ethical courses depending on the different regions and cities the participants and the universities are located.

49.3% crossed totally agree and 25.4% agree on the statement that good relationships between students themselves and also between the students and the professors matter for the learning outcome. The majority of respondents either totally disagrees or disagrees with 47.9% that universities support political interest. The distribution can be explained by students attending different universities which focus on other topics or emphasize various subjects. Furthermore, the personalities and interests of the students have to be considered and some might also have a pre-existing interest from family background and are therefore more driven to gain knowledge about sustainability.

The outcome of Student satisfaction of cooperation between University and companies shows 19.7% total agreement, so there is room for improvement, which also refers to the companies. They should put more focus on cooperation because every student is a potential employee. The distribution of the answers of Student satisfaction of offering guest lecturers is similar to the previous statements and might be also caused by the same reasons.

Investments of University in SR issues should increase by 28.2% totally agree, which shows an interest of the students in social responsibility and their wish that the university puts more effort in such issues. Only 7% totally disagree, which either can mean they are not interested in social responsibility or that they are completely satisfied with their university's investment.

Overall respect of University to its commitment to community and plays vital role in SR is totally agreed and agrees are answered by each 23.9%, indifferent by 28.2%, disagree by 18.3%. After the statements the students were asked to value their leisure time according to how much time they spend on activities such as family, friends, work, sports, playing an instrument and community service. Time spending on friends and family and sports was also evaluated. Time spending on community service is similar as on hobbies. Students do not spend a lot of time or most of their time serving their community. This is confirmed by all of the previous outcomes.

Correlation is a statistic measure to show how two variables relate to each other. If the variables are positively correlated, one moves up the other one does the same, they move in the same direction. If they are negatively correlated, they move in the opposite direction which means if one moves up, the other one move down (Investopedia, LLC, 2015).

The age of the respondents is highly correlated to the level of education and degree of education of the respondents (0.641 with a significance of 0.003) and (0.483 with a significance of 0.000) respectively. The result comes from the fact that with higher age, students reach a higher level of education, this is a logical consequence. The age is also highly correlated with the. The reason is the same like mentioned above. For a Master's degree one has to have a Bachelor's degree first, and both degrees need time.

Colleges as an important factor for student's development is positively correlated (0.262 with a significance of 0.027) to the gender of the students. There is a negative correlation between the major of education and the increase in interest in local politics since the university has been entered (-0.328 with a significance of 0.005). This reveals that the choice of major has nothing to do with the increase in interest in local politics. Also, it might show that universities do not encourage the students to participate in local politics.

A possible explanation is that politics are a sensitive subject in Lebanon, differently than in other parts of the world, like Germany or the United States. Also, it should not depend on the major; there should rather be a general interest in politics. The same phenomena can be observed regarding the negative correlation

between the major of education and the increase in interest in global politics (-0.211 with a significance 0.077).

Nevertheless, the degree of education and the increasing interest in local politics show a positive correlation (0.254 with a significance of 0.033), so one can come up with the conclusion that the more advanced students are in their studies, the more they are interested in such issues. Again, a similar correlation is shown regarding the increase in interest in global politics.

Pre-existing idea about social responsibility is highly correlated to the statement that colleges are an important factor for students' development (0.591 with a significance of 0.000). This can be explained by the fact that students who already have an idea about this subject, from either their previous school, the community or from their family, value the importance of colleges in their lives more.

Furthermore pre-existing idea about social responsibility is positively correlated to the statement that universities take action to help students to develop social responsibility and personal responsibility (0.376 with a significance of 0.001). Again, students with a pre-existing idea about social responsibility see the big picture and understand the meaning behind it. Students who do not have such a developed pre-existing idea about social responsibility yet might not be aware of the sense behind participating in the offers from the universities. Therefore, they do not value them as much as the other students.

Students with a pre-existing idea about social responsibility also correlate highly positive to the participation in social activities (0.382 with a significance of 0.001). This means that students who are aware of the meaning of social responsibility are more likely to participate in social activities than students without such an idea. In this case the hypothesis is supported that the motivation to act socially in the community should be derived from the students themselves.

In addition, pre-existing idea about social responsibility and taking chances to take ethical courses outside the universities are highly correlated (0.332 with a significance of 0.005). This is an indicator that the motivation to participate and engage in social activities in the community comes from the students themselves. Otherwise, they might not spend their free time on such events. This also shows a certain general interest in social responsibility.

The statements that colleges are an important factor for students' development and universities should spend more time and resources to get students involved actively in social responsibility are positively correlated (0.257 with a significance of 0.030). As students are aware of this fact, they wish for the universities to put more resources in these subjects. This leads to the insight that the motivation to develop in a socially responsible way comes from within the students themselves but they need the universities to support them in this development because it cannot be done by them alone. They need someone to lead, guide and provide options during their development.

The previous correlations of the statements are in favor of the hypothesis that the initiative to get actively involved in social responsibility should derive from the students themselves. In contrast to these statements, the outcome shows other correlations supporting the hypothesis that the universities are responsible to take the initiative to motivate their students to act socially responsible.

First, universities take action to help students to develop social and personal responsibility is highly correlated to the statement that colleges are an important factor for students' development (.368 with a significance of .002). In case the universities put more effort in the development of social and personal responsibility, students feel more satisfied and therefore agree to the statement that colleges are an important factor in their development. This could lead to the conclusion that the motivation to develop personal and social responsibility should arise from the universities.

The educational level of the respondents is highly negatively correlated (-0.315 with a significance of 0.007) to the participation in social activities. This means that by reaching a higher level of education, the participation does not increase but it moreover decreases. A reason might be that students are more occupied with their studies, or also their work, and therefore have a shortage of time or energy to participate actively in such social activities.

Another possible explanation could be that universities have failed to transmit the importance of participating in social activities earlier and this gap cannot be closed anymore for this generation of students. This supports the hypothesis that universities play a vital role in encouraging students to participate in social responsibility issues. If universities are not able to motivate the students, they will lose interest in social responsibility (Furze, 2010).

Another positive correlation exists between the statements that colleges are an important factor for students' development and that professors motivate students to grow beyond themselves (0.286 with a significance of 0.016). Here, one can see that the interpersonal relationships between students and their professors play an important role also in the students' development. A possible explanation is that professors are often seen, and should also act, as role models for the students. This supports the hypothesis that universities are responsible for students to act socially. The task of the universities is to hire experienced and competence staff, so that not only technical knowledge is transferred, but also skills and competences are transmitted.

There is a highly positive correlation between professors motivating students to grow beyond themselves and the universities taking action to help students to develop social and personal responsibility (0.577 with a significance of 0.000). In universities, which encourage students a lot to participate in social activities, the professors share the intention to motivate the students in this issue. It shows that there has to be common basis between the declared goal of the universities, as well as in the interests of the professors to transmit values which develop social responsibility, so that students are successfully motivated to participate in the community. A similar high positive correlation exists between professors motivating students to grow beyond themselves and the universities motivating the students to participate in the community (0.636). Reasons are the same like mentioned above.

This explanation is supported by the fact that there is an even higher positive correlation between universities motivating students to participate in the community and universities taking action to help students to develop social and personal responsibility (0.690 with a significance of 0.000).

Moreover, the positive correlation between universities taking action to help students and the participation in social activities (0.256 with a significance 0.031) shows the important role of the universities in this matter. If there is no offer for the students to participate in, they simply cannot participate. Again, this underlines the hypothesis that universities play a key role in the development of a social sense among their students.

The degree of education correlates highly positive with the increasing interest in community contribution since entered university (0.341 with a significance of 0.008). This underlines that universities play an important role in getting students interested in such activities. Further, it points out that universities are already able to motivate their students to be active in community activities. This is something positive and supports the hypothesis that motivation comes from the universities. This hypothesis is proven by the positive correlation between degree of education and increasing interest in sustainability (0.281 with a significance of 0.018).

Yet, it is shown that the major of education and the increasing interest in sustainability are negatively correlated (-0.294 with a significance of 0.013). This leads to the insight that the choice of major does not

influence the student’s interest in sustainability. Moreover, it shows that sustainability is a topic which is important for everyone and not dependent on a major.

The two statements that universities take action to develop social and personal responsibility and the increasing interest in sustainability are highly positively correlated (0.392 with a significance of 0.001). Here, the important role is shown universities play to students. This underlines again the hypothesis that the motivation should derive from the universities.

Table 1: Correlations among Variables

	Education	Student Development	Personal Responsibilities	Social Activity	Ethical Course	Social +Personal Responsibilities	Universities
Age	0.641 0.003						
Gender		0.262 0.027					
Local Politics	-0.328 0.005						
Global Politics	-0.211 0.077						
Social Responsibilities		0.257	0.376				
Social+Personal Responsibilities		0.030 0.368	0.001	0.382 0.001	0.332 0.005		0.256 0.031
Social Activities	-0.315 0.007	0.002					
Professor motivation		0.286					
Community contribution		0.016				0.577 0.000	
Sustainability	0.341 0.008						
Increase Interest in Sustainability	0.281 0.018 -0.294						
	0.013					0.392 0.001	

This table summarizes the results of the statistical work conducted on the correlation level. Only variables with strong correlation were mentioned i.e those variables having a coefficient that varies between 0.01 and 0.05. Although most variables have positive correlations, Interest in Local and Global politics are negatively related to the level of education.

CONCLUDING COMMENTS

After the evaluation of the outcome the research question can be answered in the following way. The numeration of the questions refers to the questionnaire which can be found in the appendix. On the one hand a big part of the motivation has to derive from the students themselves. If someone is not interested in participating in social responsibility activities, he will not get active no matter how many courses or activities are offered by the universities. Furthermore students have to be willing, ready and open-minded towards the issue otherwise they will never internalize the concept and start to apply it on a regular basis.

On the other hand students agreed that universities are essential for their personal development also concerning their notion of social responsibility. The study has also shown that the interest increases in the course of their studies which can be seen as evidence that the initiative should come from the university. The universities have to constantly improve their offerings and actions regarding social responsibility especially in a practical attempt. They should take on a motivating and active role to get students involved. There is a need to encourage students to become active parts of the society and stop them from being passive. As a result it is necessary to have a systemized program, projects and proactive solutions. They have to understand that it is not only the economic aspect, and maximizing profits are worth considering

but that it is also important to take care of all stakeholders including the community. The student must be educated to not only be beneficial for the company but also for the community and society.

The study has also shown that if there are interesting possibilities for students to learn about social responsibility and get involved, they are more satisfied with the university itself and more motivated to apply their knowledge. Another important result that was shown by the study is that if universities fail to motivate their students, they will lose interest which emphasizes the role of the university to be the main driver in social responsibility.

To sum it all up as the terminology “social” already points out, it is an issue concerning both students and universities. Personal students motivation is however required because without their interest as a base, the university has no chance of getting them involved. Nevertheless the development and initialization depends on the university. There is a need to establish a fundamental interest in and recognition of the importance of the issue to ensure that students become socially responsible citizens.

Social responsibility should be on a daily schedule and become a habit. This is a task that primarily the university needs to approach in co- operation with the students. There is definitely need for improvement and a change of mind- set. It is extremely important that the university makes social responsibility a central part of education and also in pre- educational institutions the focus should be on the issue. This focus will also help to make their students internalize the importance of the concept and therefore more likely to appreciate the offers of their university. Everyone has to work together - it is not a question of either or from where the motivation should derive.

This outcome is after the evaluation of the survey neither surprising nor satisfying. There is a need for change, both in the minds of the students as well as in the universities implementation and application of social responsibility issues. Awareness of the importance has to be increased on both sides.

Limitations of the study

The sample size is relatively small; this should be improved to get a better overview. Further, the distribution of the questionnaire was exclusively online, via Facebook or WhatsApp. This causes the effect that it is in some cases unclear if the survey has been done conscientiously which is a hurdle to generalize the results. Another limitation is that the research has been done by foreigners who are not familiar with the habits and circumstances in Lebanon. Due to limited time for the whole project, the width of the survey had to be reduced. Another limitation is the lack in financial resources and help.

Recommendations for Further Research

While this research included both enrolled and also graduated students, there is a need for a study which is exclusively done among graduated students. This would give a more detailed idea of what should be improved. Further, every university should regularly do an internal survey among their enrolled students to find out what the students desire and how it can be improved. The repeated surveys can also help the universities to check their progresses in this issue.

Further surveys should not only be distributed online but also personally by for example visiting different universities and giving the questionnaires directly to the students and make them fill out the questionnaires immediately. This could also have effects on the results because the students could ask the distributors of the questionnaires if something is unclear and that way respond in a more honest way. For future studies different variables impact can be studied by using more sophisticated analysis methods/models.

Appendix A: University Social Responsibility (USR) Instrument

Age: 18-21 22-26 +26

Gender: Male Female

Name of University: _____

Major: Business Engineering Humanities Medical Science Others

Current Semester: Sophomore Junior Senior

Degree of Studies: Bachelor Master

Do you Agree to the following statements? (1=Strongly Disagree; 5=Strongly Agree)

	1	2	3	5	5
1 Have a pre-existing idea about social responsibility					
2 Colleges are an important factor for student to develop social and personal responsibility.					
3 My university takes action to help me develop social and personal responsibility.					
4 My professors motivate me to grow beyond myself.					
5 My university motivates me to participate in the community.					
6 I usually participate in social activities.					
7 During my higher education journey I got the chance to take one or more ethical courses.					
8 I intend to take or already have taken courses concerning ethics outside the university.					
9 Good relationships between students-students and students-instructors matter for any learning outcomes especially getting actively involved in social responsibility.					
10 Since you have entered university, did you interest/participation rate in the following subjects increase					
Local politics					
Global politics					
Sustainability					
Community contributions					
11 Assess the following activities which you practice besides university according to how much time you spend on					
Work					
Time with family					
Time with friends					
Sports					
Playing an instrument					
Community Service					
12 I am satisfied with the offer of my university concerning					
Ethical courses					
Courses which develop your personal competences (e.g. presentation skills)					
Cooperation between university and companies					
Guest lecture especially on National and Global concern issues					
13 I do actively participate in offers from the university like mentioned above					
14 My university has to put more time and resources to get students involved in socially responsibility issues					
15 I believed my university overall respects its commitment to the community and plays a vital role in social responsibility					

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EVIDENCE ON EDUCATION TO CAREER TRANSITIONS IN THE FINANCIAL AND ACCOUNTANCY SECTOR

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ABSTRACT

Aim of the Session: The aim of this pilot project was three-fold: 1) create a learning intervention with the aim of developing priority employability skills as determined within the financial services and accountancy sector for first year undergraduate students; 2) explore the participants' experience of the program content; 3) identify recommendations for future schemes. The United Kingdom (UK) Financial and Legal Skills Partnership (FLSP) developed a platform to provide mentoring and skills development across financial services and accountancy. Known as "Get In Get On" (GIGO), the FLSP'S virtual work experience comprises two discrete though interdependent features: 1) skills and knowledge development; 2) e-career mentoring. Between February 2014 and April 2014, twenty eight mentees and mentors (from Middlesex University and supportive organizations/individuals) participated in the scheme. The pilot evaluation suggests that there is reciprocal learning for students and professional mentors within the context of the accounting and finance profession. Students have benefited from a heightened awareness of the career opportunities available in the sector and how their studies may assist them in developing their key employability attributes. Feedback suggests that the scheme has greatest benefit for students entering Higher Education, with a view to preparing them for future employment.

JEL: I2, Y8

KEYWORDS: Education, Career Transitions, E-Mentoring

INTRODUCTION

Graduates emerging from universities in search of employment are confronted by a number of challenges. One of these challenges is that they carry a degree stating their subject discipline rather than explicit evidence of their capability or transferable skills. Furthermore, they often lack the skills to position themselves appropriately in the employment market. Supporting education and career transition through mentoring and employability initiatives are both widely researched concepts and can address these issues. What is lacking is an examination of the contribution that mentoring can make to employability. Furthermore, advances in technology have redefined mentoring as a learning and development activity and heralded e-mentoring, using online solutions to open up possibilities of mentoring relationships that cross boundaries of time, geography and culture (Zey, 2011).

The Financial and Legal Skills Partnership (FLSP) is the 'skills champion' for the financial and legal sectors in the United Kingdom (UK). FLSP has a single goal: to proactively support the development of a skilled workforce in the UK's finance, accountancy and legal sectors. FLSP derives much of its funding from the UK Commission for Employment and Skills (UKCES). UKCES is a publicly funded, industry-led organization that offers guidance on skills and employment issues in the UK. UKCES is an executive non-departmental public body of the UK Government's Department for Business, Innovation & Skills (BIS). In

recent years FLSP has partnered with Brightside, a charity which aims to give every young person the advice or inspiration they need to get to where they want to be in life, to develop the online learning resources and online mentoring framework known as “Get In Get On” (GIGO). The FLSP’S virtual work experience comprises two discrete though interdependent features:

Skill and knowledge development: Students undertake immersive learning courses on skills, such as customer service in financial services, commercial awareness and understanding risk, over a one month period. They undertake these courses entirely online and content has been developed and shaped by industry to centre upon the knowledge, skills, competencies and behaviors needed to prepare students for the sector.

E-career mentoring: At the core of the program is e-career mentoring from a volunteer from the sector. This e-career mentoring gives students an opportunity to speak to a professional from the industry (or if preferred alumni contacts of postgraduate researchers), ask questions, and get advice on either the learning modules or on careers generally. As a result, the relationship between the student and mentor can be developed and could potentially lead to further work placements or even to the student applying for a summer internship or graduate entry level scheme.

The platform to date has centred upon financial services and accountancy but plans are afoot to broaden occupational sectors to include legal professional services. To date the GIGO platform has been centred upon supporting sixth formers at Qualifications and Credit Framework (QCF) Level 3 to develop priority skills and competencies. However, feedback suggests that the learning content is just as relevant for undergraduate students. The project stakeholders identified a number of wide ranging drivers. However, the aims of this project were primarily to support the development of employability skills in a diverse mentee group, to enhance employment opportunities and raise awareness of the attributes required to succeed in the financial services and accountancy sector; utilise the support of at least ten experienced mentors from the sector, and offer the opportunity to provide e-mentoring exclusively via email exchanges; evaluate the extent to which mentee participants are able to make better career decisions; establish a model of supervision for mentors, suitable in a virtual setting, and enable FLSP to review the product portfolio with a view to establishing ‘suitability’ and ‘fit for purpose’ in the higher education sector.

The goal of this study is to provide researchers and practitioners with the building blocks to evaluate a project of this type and identify the extent to which the aims and objectives of the key stakeholders of the project have been achieved. These stakeholders include Middlesex University Teaching and Development Grant sponsors, the Project Team at FLSP, FLSP’s key stakeholders (in particular The Brightside Trust), MU Business School and University colleagues in the MU Business School Project Team. This paper begins with a discussion of the key concepts of employability, mentoring and e-mentoring embedded in the literature. We will provide an overview of the Get In Get On programme, outlining the aims and objectives of this project and key stakeholders. We will then discuss the methodology used in the study, provide the study’s results, and will conclude with a discussion of the relevance and importance of the findings.

LITERATURE REVIEW

This section will consider three increasingly relevant elements of career development and transitions – employability, mentoring and e-mentoring. In doing so, we make a distinction between career development as a process, set of actions or outcome and employability as a combination of skillset, mind set and internal capability.

Employability

In this section we will initially review perspectives on the term ‘employability’ before reviewing attempts to create frameworks to guide those seeking to develop employability attributes. A set of core attributes is routinely outlined by employers as indicators of their needs and as ciphers of ‘graduateness’. These typically relate to ‘world of work’ behavioural practices such as reliability, good timekeeping, confidence and complex problem solving and, no less importantly, to ‘soft skills’ such as communication, team working ability, the capacity to operate independently and to demonstrate contextual sensitivity, including intercultural awareness. Recognition of the value of these attributes and of their pertinence to HE learning within and outside the curriculum is regarded by many as fundamental to helping Higher Education institutes achieve the highest possible outcomes for its student population. Underpinning this is the belief that these attributes should be developed from the outset of and throughout a student’s academic journey.

This singular perspective is challenged by Holmes (2013, p540) who refers to this as the ‘possessive approach, one in which graduate skills and attributes are treated as if they are capable of being possessed and used.’ Whilst dominant in many regions, especially the UK, this is regarded as deeply flawed. Drawing upon the critical educational literature, a second approach termed ‘positional’ suggests that Higher Education is structured so as to *reinforce existing* social positioning and status. A third perspective draws attention to the interaction between the graduates seeking employment that they deem suitable and those who are gatekeepers to such employment (termed the ‘processual’ approach or perspective.) Both Pool and Sewell (2007) and Yorke (2006) review attempts to define the increasingly widely-used term ‘employability’, the latter seeking to distinguish what it *is* and what it is *not*. Both draw on Hillage and Pollard’s (1998) perspective around the enhanced capability to transition and shift self-sufficiently within the employment market, realising potential through sustainable employment.

Yorke (2006) stresses that what we are discussing here is employability rather than employment, the former being an on-going process of building capacity and the latter an outcome. One does not necessarily lead to the other. He also makes the serious point that employability is more likely to be effectively created *in* employment and is likely to be limited whilst a student’s primary environment is a Higher Education institution. This point brings into question the concern about employment being of a ‘graduate level’. For some graduates the move to a level of employment deemed appropriate to their age and degree discipline appears seamless however an increasing proportion of university graduates globally starts careers in work that does not require a university degree to get or to do the jobs, i.e., in *underemployment*. Okay-Somerville and Scholarios (2013) point out that although early underemployment is often regarded as transitional, our understanding of the dynamics of boundary-crossing from early underemployment into adequate or meaningful work is scarce. Yorke’s (2006) point above suggests that a state of *in-employment*, regardless of level, may be a richer environment for building employability than a state of *not-in* i.e. *unemployment*.

Pool and Sewell (2007) review four frameworks that evolved from the late 1970’s through into the first decade of the 21st century. Hillage and Pollard (1998) identify assets to be built and then deployed, presentation skills to be developed and reiterate that personal circumstances and external forces must be considered. Bennet *et al*, (1999) suggest that course provision should combine disciplinary knowledge and skills plus workplace awareness and experience. Knight and Yorke (2004) coined the acronym USEM which goes beyond disciplinary and workplace understanding and skills (the U and the S) to include efficacy beliefs (E) and metacognition (M). Pre-dating all of these is the DOTS model of Law and Watts (1977) in which planned experiences are intended to facilitate decision making (D), increase awareness of opportunities (O), develop skills to support both the transition (T) process and development of greater self-awareness (S). Whilst there is common ground in each, and each provides its own unique checklist, it is only in Knight and Yorke’s (2004) USEM model and Law and Watts’ (1977) DOTS models that we see the idea that the individual’s identity, the ability to make sense of their thinking and how they are or might be approaching the employment market is seen.

Pool and Sewell's (2007) review lays the foundation for their own list of essential components of employability and the clever configuration of these into both an acronym (CareerEDGE) and the visual image of a key. The strength of this model lies however in the explicit recognition that building employability requires the positioning of stepping stones in the form of increased self-efficacy, self-confidence and self-awareness. The model also makes explicit the requirement for reflection and evaluation, and the increasing importance and value of emotional intelligence (EI), both what it is and why it is a vital part of this process. The authors suggest that the means to achieving these stepping stones is Personal Development Planning, although making only fleeting reference to Moon's (2004) paper *Reflection and Employability*. It is our argument that skilful mentoring has a significant role to play in the reflection process leading to increased EI and in turn employability. It is the purpose of this research to shed light on whether e-mentoring support employability and career transitions in first year undergraduate students. The next section will review briefly perspectives on the concepts of mentoring and e-mentoring.

Mentoring and E-Mentoring

The process of mentoring, the role of a mentor and mentoring programs in organizations are not new and most discussions make reference to the role played by the mythical character, Mentor, from whom the process takes its name. What is less commonly relayed is the description as 'wisdom personified; a paradoxical union of both path and goal' (Bierema and Hill, 2005, p 557). These authors conclude that the definitions and the functions of mentoring vary widely which probably contributes to the widely differing degrees of formality and structure associated with mentoring schemes. At one extreme there are the overly bureaucratic schemes dominated by administrative procedures; at the other extreme is the 'light touch' approach in which aims, objectives or strategic relevance are poorly developed or articulated and outcomes rarely pursued for the purpose of evaluation. What is not in doubt is that mentoring is a developmental relationship in which experience and knowledge are passed from one party, the mentor, to another party, the mentee. The usual assumption is that the former is older than the younger but as Zey (2011, p 142) points out, Jack Welch and GE recognised the need for younger employees to 'mentor upwards' so to speak so that older workers could keep abreast of rapidly evolving technologies.

The rapid evolution of ICT has been seized, in some cases without question, as a way of extending the process of mentoring to overcome spatial and temporal divides. Much debate has ensued, and continues, seeking to determine whether the benefits of face-to-face, traditional (or t-mentoring) are maintained, enhanced or diminished by the increasing range of modes of electronic communication now available for what is variously referred to as e-mentoring (Bierema and Merriam, 2002; Shpigelman *et al*, 2009; Hamilton and Scandura, 2003), virtual mentoring (Bierema and Hill, 2005; Zey, 2011) or instant mentoring (An and Lipscomb, 2010). Scandura and Hamilton (2003) summarise the strengths of e-mentoring, for example in overcoming the challenge global organizational structures by allowing mentors to be in different places, different time zones, to communicate either synchronously or asynchronously and even to remove some of the visual status cues which sometimes inhibit communication between the more senior or experienced mentor and the less experienced mentee. Bierema and Hill (2005) echo some of these advantages but also highlight some of the challenges such as cost and reliability of technology, the challenge of articulation via online skills, the *loss* of visual cues such as body language and facial expressions which are regarded by most commentators as being as meaningful to a relationship as the spoken words, and the challenge of creating appropriate matches when participants have no first-hand experience of each other prior to engaging. In their discussion of the value of e-mentoring for women in particular Headlam-Wells *et al* (2005) highlight a number of barriers that prevent all prospective mentees regardless of gender or career stage from finding a mentor. These include a lack of available mentors in an industry or profession, increasing demands on potential mentors, lack of similarity in attitude or demography, or organizational or geographical boundaries. E-mentoring offers a way of overcoming these barriers.

The fact that e-mentoring can be either synchronous or asynchronous raises the risk and the challenge of sustaining the relationship when partners are beyond each other's physical reach, being accessible or dependent purely on only by electronic means, therefore meaning that communication depends upon both parties readiness to open the line of communication. Haddock-Millar and Rigby's (2014) work on the Cabinet Office-backed *Public Sector Mentoring Scheme* referred to this as 'managing the down time' which has been quoted as being the main reason for partnership failure in a significant number of cases. The above challenge has links to the impact and importance of interaction frequency. De Janasz and Godshalk (2013) cite evidence which found frequent interaction to be positively related to both mentor and mentee perceptions of success and high interaction has been found to mediate e-mentoring program self-efficacy outcomes.

To conclude, the authors/ researchers regard a brief discussion of some of the guiding frameworks utilised in this pilot to encourage interaction worthwhile. Factors influencing the degree of success of a mentor-mentee relationship include the style, or range of styles, adopted by the mentor, an understanding of the stages that a relationship may, and possibly needs to evolve through, and an understanding of the key ingredients of success required for each mentor-mentee exchange. Klasen and Clutterbuck (2002) describe mentor styles in terms such a coach (sic), facilitator, counsellor and guardian depending upon the degree and balance between influence (directive or non-directive) and emotional or intellectual challenge. The stages that a relationship evolves through are described as rapport, direction, progress, maturation and close with the key variable related to each stage being 'intensity of learning'. Finally, to ensure that each exchange delivers optimum value each party needs to ensure a high clarity of purpose built on a foundation of high rapport. Given the context of this paper, to achieve this combination requires the cultivation and practice of highly valuable employability attributes.

METHODOLOGY

Between February 2014 and April 2014, twenty eight mentees and mentors, from Middlesex University Business School and individuals from supportive organizations in the financial and legal sectors respectively, participated in the GIGO scheme. The scheme was led by the first two authors of this paper. The primary research strategy was action research involving iterations of action and reflection, theory and practice shaped by perspectives of all participants at regular intervals (McNiff and Whitehead, 2009). The purpose of the ongoing and summative program evaluation is to understand the benefits for stakeholders, consider appropriate project adjustments or fundamental changes or even whether the program should continue. Being open to the unexpected outcomes and post-development outcomes is equally as important, as these can easily be missed if the evaluating team adopts a blinkered approach.

The Project Team utilised a mixed-method approach to address the following research objectives, namely to identify specific outcomes within individual mentoring partnerships; identify lessons for building relationships between HEIs and employers around recruitment, learning and development; evaluate the contribution of mentoring to the broader employability agenda, and identify the factors associated with a positive or negative experience of the Scheme.

Data Collection

The Project Team utilised a mixed-method approach including the facilitation of semi-structured interviews, focus groups and questionnaires, to provide qualitative, quantitative and visual data. Mentees were surveyed at the start of the program using the online *Survey Monkey* tool in order to capture the participants' profile to enable a comparison between the mentors and mentees, to evaluate participants experience and value of the recruitment process, project launch, and training/briefing and to capture participants' expectations and rationale for joining the scheme. At the conclusion of the eight-week program another online survey of mentees was undertaken to evaluate the mentees experience the virtual work experience and e-mentoring

relationship. This survey also provided an opportunity to capture qualitative responses for later thematic analysis. A third data set was generated at the conclusion of the program via a combination of online survey and one-to-one interviews to evaluate the mentors experience the e-mentoring relationship. In addition to this survey and interview data, an additional data set was available from FLSP which enabled the Project Team to determine the level of activity and engagement with the online materials.

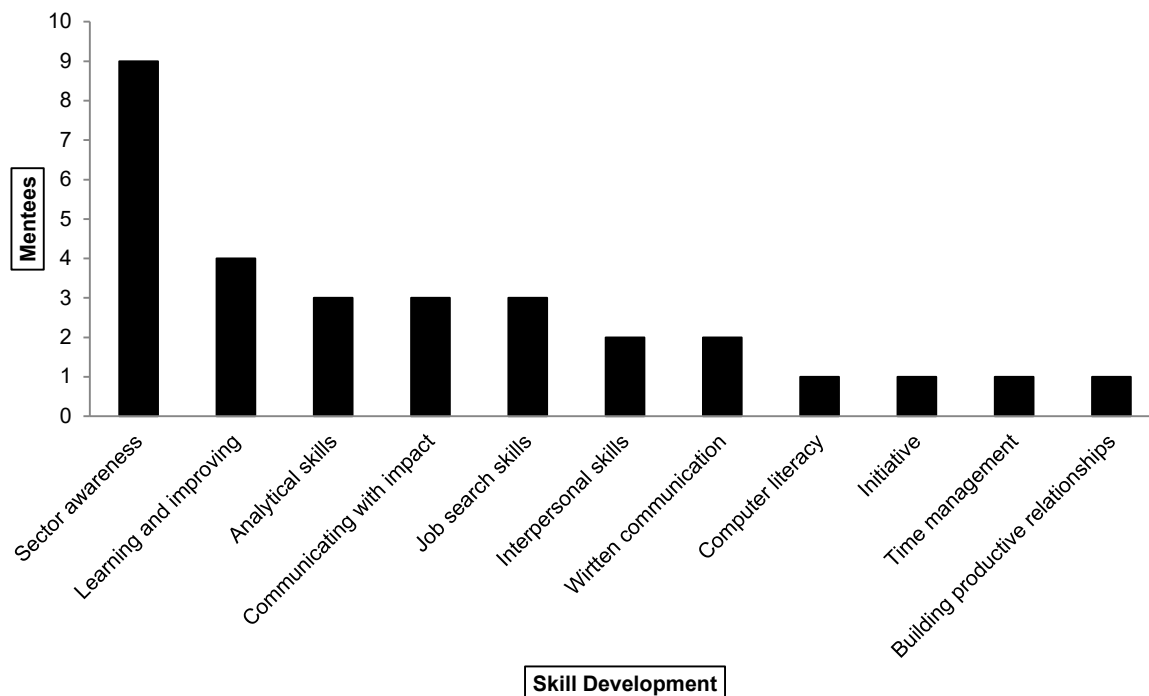
The strategy has provision to re-visit participants in May/June 2015 to evaluate advancement and seek to identify how the programme has contributed to this. Fourteen mentees commenced the programme on 1st March 2014, each supported by a mentor from the accounting and finance sector. The mentees were drawn from a range of Middlesex University Business School undergraduate programmes including Accounting and Finance, Business Accounting and Economics with an equal split of male and female mentees. Of those mentees that completed the baseline survey ($n=10$) 44.44% were aged 16-18, 44.44% were aged 19-24, 11.11% were aged 25-34. The majority of mentees were of Asian origin (55.55%), 22.22% were Black African, 11.11% White British and 11.11% White other. The Universities and College Admissions Service (UCAS) point entry ranged between 180 and 300. The mentors came from a range of public sector, private sector and small and medium-sized enterprises (SMEs), including Standard Life, Bank of Scotland, Simply Health and the FLSP. Eight mentors were female and six were male.

RESULTS AND DISCUSSION

Mentees were asked why they wanted to join the program. Responses can be grouped into two categories. The first category was a desire to gain experience of virtual mentoring: *'I have never had the experience of being a mentee especially through a virtual way so this really caught my attention; for the experience of being virtually mentored by someone in the field.'* The second mentee driver was the desire to develop employability skills and sector knowledge: *'I think it's great to have on my CV and I will learn more about interviews and enhance my accounting skills; I wanted to increase my knowledge and receive valuable help from a mentor who will guide me to the right way of entering my career and to build a strong CV; It also allows me to ask questions regarding interview techniques with my mentor.'*

During the course of the mentor interviews, several reflected on the importance of mentoring, both for themselves and the mentees. Again the responses can be grouped into two categories. Some mentors wanted to gain experience of virtual mentoring: *'It was a development opportunity to learn about a new method of mentoring; my organization was offering the experience and I had never experienced e-mentoring previously.'* The other theme emerging was a desire to help others access the profession: *'University students don't always get the opportunity to have a business mentor straightaway; it is really good to actually help other younger people progress in their careers to get help as early.'* Finally, the baseline survey of mentees at the outset asked them to select three skills they most wanted to develop through the scheme - the results can be seen in Figure 1.

Figure 1: Mentee Skill Development Drivers



This chart illustrates that the most common reason cited for taking part in the GIGO e-mentoring programme was to develop greater awareness of the accountancy and finance sectors.

Mentee/Mentor Program Engagement

The level of engagement with the program was determined via data generated from the GIGO platform. Data was available for each mentee-mentor pairings under the seven headings shown below in Figure 2. As might be expected, engagement varied across the pairings with the two extremes are illustrated in Figure 2.

Figure 2: Mentee and Mentor Program Engagement

Pairing Number	Units Complete	Mentee Time Spent on Site	Mentor Time Spent on Site	Mentee Messages Sent to Mentor	Mentor Messages Sent to Mentee	Mentee Number of Logins	Mentor Number of Logins
1	8	17 hrs 48 mins	9 hrs 37 mins	79	56	37	27
14	0	57 mins	2 hrs 24 mins	4	10	5	15

This table indicates how widely the interaction between mentor and mentee varied during the four week period of the GIGO programme.

Overall, seven mentees complete all eight online courses, six mentees complete between one and six courses, one mentee failed to complete any course. The mentee survey indicated that participants were very satisfied with the relationship engagement with their mentor. The majority (60%) of mentees felt that they had good rapport with their mentor and 40% felt that they had high rapport. All mentees felt that they achieved high clarity of purpose with their mentor. Mentees perceptions of the online GIGO course content and its contribution to their employability were also sought. The mentees were asked to rank the sector and employability scheme content from 1 – 4 in terms of value, 1 being the highest. Overall, the sector course driven content proved more valuable (60%) than the employability course driven content (40%). All survey

participants felt better prepared to enter the world of employment, 20% attributing this entirely to the FLSP programme and 80% attributing this to a large extent. When mentees were asked to rank the four sector-specific modules, two rated more highly than others, namely understanding the client and understanding the sector. Qualitative responses included: *'In every sector **understanding of client knowledge** it is very beneficial for a sector as well as if you have more knowledge about sector and the client your dealing with then you will understand your roles and responsibilities within the sector and also understating the risk of work your dealing within sector and the you are performing'*.

'Understanding the client and the sector were the most valuable courses I undertook, because of awareness of the financial sector as a whole. It let me become clear about the whole sector and procedures being undertaken inside the business and how to improve the business and what do the clients' needs are.' *'The reason why I rated the four sectors in that order, is that it's important for any individual to first **understand the sector** they are going into, then the roles and responsibilities they have to undertake. It's then very important to understand clients and what they expect from you and what their needs are.'* *'As someone in my shoes with a very limited **understanding of the sector** and what it entails, certainly, the course where I learned more of the sector was the most valuable. Knowing the sector is, to me, the fundamental building block to pursuing a career in the financial sector. Learning the roles and responsibilities in the sector was the second most valuable course because it gave me an insight into the different roles I could pursue in the sector and what they entail to being successful. A lot of these roles have client interaction at the fore therefore understanding the client was the third most valuable course. The least most valuable course for me at this point was understanding risk. While it was an interesting course, I think it will prove to be useful once I enter some of the management and higher stature roles in the sector rather than where I am now.'* For those students that have limited experience or no experience of the sector an introduction to the world of accounting and finance through virtual means can begin to develop the on-going process of capacity building (Yorke, 2006). Indeed, Knight and Yorke's (2004) model is particularly relevant here; mentees are developing workplace understanding and skills from both a client and sector perspective. When mentees were asked to rank the four employability-specific modules, 'communicating in a professional environment' rated more highly than others. Qualitative responses included:

'Communication is a core skill in any business and this is the skill employers first of all look at.' *'The reason why I rated this in this following order is, **individuals should know how to behave in a professional manner** in the sector, then it's important to make a great impression where you work so that staff there communicate with you freely and this leads to getting in and on with other staff there which I rated 3rd. Finally it's skills to success as you learn this on the go while doing your job and going ahead.'* *'**Getting In and Getting On** proved to be the most valuable course for me. This is because of, prior to the course, I had a very low understanding of the different ways of entering the industry. Without the knowledge of how to specifically get into the industry, all the other courses seem moot. The second valuable course for me was **making a good impression**. Now that I had some idea of the different paths of getting into the industry, I could focus on "Making a Good Impression" on employers and interviewers so that I could give myself the best chance of getting into the sector. This ties in also with the course "Communicating in a professional environment"'. The simple fact that mentees are given the opportunity to reflect on their professional development throughout the program through a variety of methods, can provide the catalyst to increase self-confident and self-awareness (Moon, 2004). Overwhelmingly, mentees felt that their communication skills had improved and their understanding of how to conduct themselves in a professional manner in the workplace. Pool and Sewell's (2007) essential components of employability are entirely relevant here, from the importance of reflection and evaluation, intrinsically linked to EI.*

Interviews with mentors suggested repeatedly that the program was and is 'fit for purpose' and appropriate for the first year undergraduate group; for example:

*“It is **fit-for-purpose** because if you look at the units that the young people work through **it is an introduction to the sector** and some of it gets quite involved ... researching a career as an actuary, a financial advisor, an accountant, different types of accountancy.”* (Mentor Interviewee, FLSP) *“Overall view of the programme: **really enjoyed taking part; great for me and him**; it was time pressured however, perhaps a longer window would deepen the value (for both of us).”* (Mentor Interview, Simply Health) *“Some of the questions and tasks assumed a certain level of prior knowledge, especially regarding ‘behind the scenes’ type roles e.g. back office activity, Actuarial roles – would be useful to provide an overview or some insights into this type of work. The content was appealing to first years (University students) than I think it would be later on ... **it’s a good introduction**. I think if you were in your final year at University with exams going on, I don’t think you would be as committed to it, I think it is quite useful for first years or second years quite early on.”* (Mentor Interviewee, FLSP)

Here we can see that the timing of the program is important. At what point of an undergraduate students’ journey should the programme be introduced? It is clear that both mentees and mentors felt that the beginning of a degree program provides the best opportunity to engage with the scheme, developing knowledge and skills which can inform and support further study. The pairs that completed the program reported a high degree of purpose and focus, supported by strong rapport. In all these mentoring pairs, participants felt that the mentoring relationship had reached the maturity stage having established and maintained rapport, setting direction, progressing and maturing (Clutterbuck and Klasen, 2002). In the majority of these pairs, the mentee was based in London and the mentor was based in Scotland.

What this demonstrates is that the challenge of geographical distance can be overcome by e-mentoring (Scandura and Hamilton, 2003). Furthermore, whilst the relationships were conducted entirely by email and the website platform which facilitated online discussion, the loss of visual cues and body language do not appear to have presented a barrier for the participants that completed the program (Bierema and Hill, 2005). When asked about the style of mentoring, mentees and mentors felt that the style adopted was predominantly that of a coach or facilitator (Klasen and Clutterbuck, 2002). The characteristics of these styles included collaboration, challenge and critical friendship. In the majority of pairs the mentees felt very comfortable with the mentors’ form of questioning, choice of language and engaging approach to the course content. The mentees felt sufficiently stretched and challenged, whilst at the same time acknowledging the supportive style of the mentors.

CONCLUSION

The aim of this paper was to provide researchers and practitioners with the building blocks to evaluate a project of this type and identify the extent to which the aims and objectives of the key stakeholders of the project have been achieved. The methodology guiding both the project and the research by the authors was action research and the data collection a combination of qualitative survey of participants via online Survey Monkey supplemented by qualitative one-to-one interviews with mentors and focus groups with mentees. The primary findings of the paper are that the Get in-Get-on e-mentoring platform, originally designed for and targeted at a 16-19 year old audience for the purpose of enhancing employability, is perfectly ‘fit-for-purpose’ with an older audience, namely first year undergraduates in a UK university.

The survey and interview data demonstrated a unanimous positive response from mentees. The mentees are now more aware of the range of opportunities available in the sector and the skills needed to succeed. Communicating in a professional environment was the most significant developmental area for mentees. A second objective was also unanimously achieved according to mentee respondents who now believe they are better informed of the range of career opportunities available to them and therefore able to make clearer career choices. Another objective was to determine whether the GIGO content and format would be applicable to a slightly older audience than it was initially designed for. The data from both mentees and mentors suggests that the model is an ‘ideal’ fit for first year undergraduate students. The general consensus

is that undergraduate students need to think about their employability from the time of entering Higher Education; waiting until the second or third year can put students at a distinct disadvantage to those that have established networks. Prior to this programme the GIGO platform had been designed to support sixth formers at QCF Level 3 to develop priority skills and competencies. However, feedback suggested that the learning content is just as relevant for undergraduates. There is also evidence that the program offers the opportunity for both mentee and mentor to develop their respective professional practice. For mentees, the greatest opportunity is to learn from someone experienced in the sector, developing their knowledge of the sector, raising awareness of roles and opportunities available to continually develop their work-related skills. For mentors, the greatest opportunity is to develop their mentoring capability and adaptability in a variety of dimensions including guiding, coaching and facilitating learning.

Whilst there is confirmation of great strengths in the GIGO there are other areas where the program might be strengthened further. Examples include consideration of how to strengthen rapport in a purely email mentoring relationship and how to establish the appropriate duration for the program for ensuring that benefits are optimised and realised without this voluntary engagement impinging upon other commitments and priorities. There is also an issue to be aware of regarding the briefing of mentors and mentees prior to matching. In this program mentors were trained and briefed by Brightside; mentees were trained and briefed by Middlesex University staff. Whilst there is little evidence from this research that this caused an issue, in order to reduce the risk of misunderstanding arising it may be worth considering closer liaison and alignment of messages and theoretical underpinnings prior to training of both mentors and mentees.

Overall, the majority stakeholder aims and objectives were met. The majority of participants felt that they had enhanced their employability skills and through their mentoring relationships developed a greater awareness of the attributes required to succeed in the financial service and accountancy sector. The majority of mentees felt better able to make career choices going into their second year of studies. The pilot scheme has given the FLSP confidence that the 'model' including the platform and program content are suitable for first year undergraduate students. The results are relevant to both researchers and academics engaged in developing the Higher Education curriculum and supporting students' employability and successful career transitions. The limitations of the research are that whilst the results are reliable and internally valid the relatively small sample size and the peculiar nature of this Get in-Get on programme renders generalisation towards other e-mentoring programmes less valid. Investigation of other mentee experience plus research to track participant experiences subsequently (downstream), particularly of mentees gaining employment appropriate to their graduate status and relative to their degree discipline would strengthen the research and confidence in promotion of the platform .

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