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ACADEMY OF EDUCATIONAL LEADERSHIP JOURNAL

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LETTER FROM THE EDITORS

Welcome to the *Academy of Educational Leadership Journal.* The *AELJ* is published by the Allied Academies, Inc., a non profit association of scholars whose purpose is to encourage and support the advancement and exchange of knowledge, understanding and teaching throughout the world. The *AELJ* is a principal vehicle for achieving the objectives of the organization. The editorial mission of this journal is to publish empirical, theoretical and scholarly manuscripts which advance the discipline, and applied, educational and pedagogic papers of practical value to practitioners and educators. We look forward to a long and successful career in publishing articles which will be of value to many scholars around the world.

The articles contained in this volume have been double blind refereed. The acceptance rate for manuscripts in this issue, 25%, conforms to our editorial policies.

We intend to foster a supportive, mentoring effort on the part of the referees which will result in encouraging and supporting writers. We welcome different viewpoints because in differences we find learning; in differences we develop understanding; in differences we gain knowledge and in differences we develop the discipline into a more comprehensive, less esoteric, and dynamic metier.

Information about the organization, its journals, and conferences are published on our web site. In addition, we keep the web site updated with the latest activities of the organization. Please visit our site and know that we welcome hearing from you at any time.

Royce Caines and Michael Shurden
Editors
Lander University

Manuscripts

LEARNING STYLES AND THE USE OF THE WALL STREET JOURNAL IN THE INTRODUCTORY FINANCE COURSE

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ABSTRACT

In the context of the learning-styles tradition, this paper provides one Wall Street Journal homework assignment for almost each chapter of a standard introductory finance textbook. Therefore, the paper briefly reviews both the extant literature on the current teaching, learning, and assessment methods used in the field of finance and the literature on learning styles. It notes that most finance faculty use the chalk-and-talk lecture method, which is complemented with other methods by others. Overall, finance faculty are not immersed in the learning-styles tradition. The paper emphasizes that the recommended Wall Street Journal homework assignments would diversify the teaching, learning, and assessment methods in an introductory finance course and act as a step towards the learning-styles tradition.

INTRODUCTION

Angelo (1993) notes that faculty do not receive a formal exposure to education in their graduate training. They focus on mastering the theoretical concepts of their discipline, and although such mastery may be necessary, it is not sufficient for teaching.

Saunders' (2001) survey shows that the modal finance faculty usually conducts traditional chalk-and-talk lectures together with problem-solving. He rarely demonstrates how to use computers, seldom discusses newspaper and magazine articles, and does not use any other teaching methods. Outside-class assignments are usually limited to textbook reading and individual homework but other kinds of outside-class assignments are rarely used. The student's overall grade is solely determined through individual in-class tests, with no consideration for group work assignments.

Similarly, in their research, Berry and Farragher (1987), Cooley and Heck (1977, 1996), Gup (1994), and Krishnan, Bathala, Bhattacharya, and Ritchey (1999) have placed emphasis on the role of the finance faculty as teachers of technical aspects of the subject matter and conducted surveys of introductory finance courses to determine what topics are taught and to what extent faculty teach the basic concepts in finance.

Pratt and Gentry (1994) and Helgesen and Gentry (1988) note that finance faculty are serious and conscientious about their teaching effectiveness and students' learning. Finance faculty are

frustrated when, despite their best efforts, students under-perform. Some of the reasons for such an undesirable outcome are related to issues outside their control. However, other reasons, such as adapting teaching methods, are more within their control.

Filbeck and Smith (1996) and Gentry and Helgesen (1999) note that the traditional teaching method is the chalk-and-talk lecture. However, recent research indicates that not all students learn effectively and efficiently by this method. Finance faculty are constantly exposed to various teaching tools and techniques to better meet the learning needs of students. The financial education literature describes many alternative teaching methods and assessment techniques (Ardalan, 1998; Atkins & Dyl, 1995; Bagamery, 1991; Becker, 1993; Byrd & Harman, 1997; Chan, Weber & Johnson, 1995; Clinebell & Clinebell, 1995; Dahlquist, 1995; Dyl, 1991; Erickson, 1999; Kane, 1999; Lamb & Pace, 1993; Locke & Ebron, 1998; Marks, 1998; McCarty, 1995; and White, 1991a, 1991b).

Consequently, some finance faculty have diversified their teaching, learning, and assessment methods. Saunders (2001) surveys finance faculty to investigate the type and the extent of different teaching methods and assessment techniques which they use. He finds that fifty-five percent of finance faculty use group activity in class. Forty-three percent assign small group activities and thirty-three percent assign group computer work and group presentations. Forty-three percent use outside-class group work, which includes computer work, homework, take-home tests and quizzes, papers, or other small-group activities. These constitute a part of an individual student's overall grade in forty-six percent of courses. In most cases, the group work grade is assigned to each individual member of the group. Fifty-six percent use writing assignments, which include either individual or group papers. Fifty percent count these papers toward individual student's course grade.

Saunders (2001) refers to Barr and Tagg (1995) who discuss a shift from lecture-driven "instruction paradigm" to a "learning paradigm" with multiple teaching methods and assessment techniques. Saunders (2001) concludes that this paradigm shift does not seem to have taken place in the introductory finance course. Saunders (2001) implies that finance faculty should reduce the use of chalk-and-talk lectures and in-class testing. This is because students in introductory finance courses are supposed to learn computer skills, teamwork and leadership skills, and written and oral communication skills. In order to accomplish these goals, then teaching techniques beyond chalk-and-talk lectures and assessment measures beyond in-class tests need to be incorporated into the course.

The analysis and understanding of the factors that affect students' learning and performance may provide finance faculty with the insight into the existence of potential differences in learning preferences among students. Carroll (1963) hypothesizes that students learn to the extent that they receive appropriate instruction, and they individually spend the necessary time to learn the materials or perform the required tasks. Pascarella and Terenzini (1991) claim that student's performance depends on academic ability, intelligence, personal motivation, organization, study habits, quality of effort, patterns of coursework, the teaching/learning context, instructional approaches, teacher's

behavior, and the extent of student involvement. Paulsen and Gentry (1995) focus on the role of psychological factors in performance: test anxiety, goal orientation, task value, self-efficiency, and so on. Didia and Hasnat (1998) examined performance in relation to characteristics such as aptitude, background, maturity, effort, and instructor contribution. Bale and Dudney (2000) consider demographic factors as affecting learning: gender, GPA, grade status, school size, and job-related factors. Johnson, Joyce, and Sen (2002) argue that learning is affected by previous finance knowledge, gender, age, transfer status, student effort, and faculty contribution.

Angelo's (1993) classic article stresses the need to know how students learn, i.e., learning styles. Understanding learning styles helps to improve teaching performance and enhance student learning. It helps to strengthen weaker areas of students' cognitive processes, and to alter teaching and testing strategies to create a better learning environment.

LEARNING STYLES

In this section, we review the existing literature on learning styles. In this literature, as discussed by Weinstein and Meyer (1986) and Davis (1993), individuals are thought to have a set of cognitive strategies that help them make sense of the new information which they receive. Furthermore, they prefer some of these strategies, which are referred to as learning styles. More specifically, these preferred strategies, or learning styles, are ways of gathering, interpreting, organizing, and thinking about the new information.

The learning-styles literature examines students' different methods of learning. Murrell and Claxton (1987) summarize some of the extant literature. They trace the foundation of the learning-styles research to three major contributions. Dewey (1938) emphasized the role of experience in the learning process. Lewin (1951) stressed the role of an active learning environment in the learning process. Piaget (1971) noted the role of the dynamics between the leaner and the learning environment in the learning process. These formed the foundation for the development of numerous learning-style inventories.

Curry (1983, 1987) utilizes the onion metaphor to illustrate layers that form the basis of the learning styles measurements and learning-styles inventories. "Instructional preference" refers to the individual's preferred learning environment. It is the outer and most observable layer which is most susceptible to influence and, therefore, the least stable for measurement. "Social interaction" is the next layer and reflects the individual's preference for social interaction during learning. "Information processing style" is the third and more stable layer and is the individual's intellectual approach to the processing of information. "Cognitive personality style" is the final and most robust layer reflecting the individual's personality.

Riding and Cheema (1991) broadly categorize learning styles according to two fundamental dimensions representing how information is processed and represented, that is, the wholist-analytic dimension and verbaliser-imager dimension, respectively. The wholist-analyst dimension represents

whether the individual processes information as a whole (wholist) or breaks it down into components parts (analytic). The wholist is associated with terms such as: inductive, expansive, unconstrained, divergent, informal, diffuse, and creative. The analytic is associated with terms such as: deductive, rigorous, constrained, convergent, formal, critical, and synthetic. The verbaliser-imager dimension shows the extent to which individuals represent information as words (verbaliser) or as images (imager). Riding (1991) has developed the Cognitive Style Analysis (CSA) as a computerized assessment tool integrating the two dimensions.

Gregorc (1982) describes four types of behavior: abstract, concrete, random, and sequential tendencies. A combination of these tendencies defines the individual's learning style. These tendencies reflect in-born qualities but individuals are capable of functioning outside their natural style. Four learning styles are identified: concrete sequential, representing direct, step-by-step, orderly, and sensory-based learning; concrete random, representing trial and error, and intuitive and independent approaches to learning; abstract sequential, representing analytic and logical approaches to learning and a preference for verbal instruction; and abstract random, representing a preference for holistic, visual, experiential, and unstructured learning. Gregorc's Style Delineator is a learning styles inventory instrument which should be used alongside observation and interviews to assist in the identification of individual's learning style and preferences.

Kolb (1976, 1984) proposes four learning orientations: concrete experience (CE; experiencing) which prefers experiential learning; abstract conceptualization (AC; thinking) which favors conceptual and analytical thinking in order to gain understanding; active experimentation (AE; doing) which involves active trial-and-error learning; and reflective observation (RO; reflecting) which gives extensive consideration to the task and possible solutions before any attempt for action. The four learning orientations form the two dimensions of learning. The first dimension is CE-AC which is called prehension: the grasping of information from experience. The second dimension is AE-RO which is called transformation: the processing of grasped information. Four learning styles are defined based on the relative position of an individual along the two dimensions: convergence, divergence, assimilation, and accommodation. Convergers use abstract conceptualization to perform active experimentation. Convergers' action is based on the abstract analysis of the task and projected strategies for successful completion of the task. Divergers apply reflective observation to concrete experience and usually generate a creative solution. Divergers are most often creative learners because they tend to consider multiple strategies for learning and problem solving. Assimilators, whose primary concern is their explanation of their observation, tend to combine abstract conceptualization and reflective observation. Assimilators get mainly involved with refining abstract theories rather than developing workable strategies and solutions. Accommodators use active experimentation and concrete experience and have a clear preference for hand-on learning. Accommodators tend to act promptly and adapt to diverse situations. Kolb's Learning Style Inventory (LSI) scores reflect an individual's relative preference with respect to the four learning orientations and the corresponding learning style.

Vermunt (1992, 1994) defines learning styles in terms of four strategies and orientations: processing strategies, being aware of the goals and objectives of the learning exercise to determine what is learnt; regulation strategies, for monitoring learning; mental models of learning, including the learner's perceptions of the learning process; and learning orientations, described as a person's aims, intentions, and expectations based on past learning experience. Based on these strategies and orientations, four learning styles are defined: undirected, where the individual has difficulty in assimilating learning material, coping with the volume of material, and prioritizing the importance of components of the material; reproduction, where the individual makes little or no effort to understand the material instead the information is reproduced; application directed, where the individual applies the material learned to concrete situations in order to gain understanding; and lastly, meaning directed learning, where the individual attempts to gain a deeper understanding of learning material and to draw on existing and related knowledge to achieve critical understanding. Vermunt's Learning Styles Inventory (LSI) has been developed and used as a diagnostic tool in higher education.

Dunn, Dunn and Price's (1989) Learning Style Inventory (LSI) is based on the following key factors: environmental (light, sound, temperature, and design); emotional (structure, persistence, motivation, and responsibility); sociological (pairs, peers, adults, self, and group); physical (perceptual strengths: auditory, visual, tactile, kinesthetic, mobility, intake, and time of day); and psychological (global-analytic, impulsive-reflective, and cerebral dominance). The factors are reported independently to construct profiles which can be used to guide the construction of the learning situation, material, and teaching approach.

The Myers-Briggs Type Indicator (MBTI) was founded by Carl Jung which was further developed, tested, and modified by Briggs and Myers. The MBTI is used widely for measuring personality variations and applied to business, education, and counseling in areas as diverse as team building, career planning, student performance, and marital counseling. Johnson (1992), Reynierse (1993), Scarborough (1993), and Walck (1992) have used the MBTI in different aspects of business management.

The MBTI questionnaire intends to measure the extent of individuals' preferences on four dimensions. The first relates to individuals' preference for the focus of their attention: extroversion (E) versus introversion (I). The second relates to how individuals acquire information about their surroundings: sensing (S) versus intuition (N). The third relates to how individuals make decisions: thinking (T) versus feeling (F). The fourth relates to individuals' orientation to the environment: judgment (J) versus perception (P). Exhibit 1 is a summary of the four dimensions of the MBTI.
Helgesen (1986) notes that no one learning style is better than any other for either learning or teaching, and that no one learning style is mutually exclusive of any other. It is known that two individuals may have the same basic personality characteristics, but may vary widely in their application because of life experiences, maturation, and environment.

Exhibit 1. Overview Summary of the Four Scales of the MBTI Dimensions Measured by the Myers-Briggs Type Indicator
Preferences for focusing attention
Extroversion (E) - People who prefer extroversion tend to focus their attention on the outer world of people and things. Since they draw their energy from what goes on around them, they gain energy from interacting and being engaged. They understand the world around them best when they are able to be engaged in activity.
Introversion (I) - People who prefer introversion tend to focus their attention on the inner world. Since they draw their energy from what goes on inside them, they prefer to reflect before acting. Their need to think before acting makes it necessary for them to understand their world before being engaged in their surroundings.
Preferences for acquiring information
Sensing (S) - People who prefer sensing focus on the concrete aspects of a situation. They value what can be seen, touched, felt, smelled, or heard. They tend to be practical-minded and grounded in the present. Their concern for details and facts tends to make them accept what is given and be less interested in change.
Intuition (N) - People who prefer intuition focus on the abstract, even using a "sixth sense" or "gut feeling" to acquire information. They value relationships not immediately recognizable to the senses striving to understand the "big picture." With an orientation toward future possibilities, they are fascinated by change.
Preferences for making decisions
Thinking (T) - People who prefer thinking focus on objective decision making, based on a desire for fairness and detachment. They seek logic in their analysis of situations and any consequences that result. They desire to achieve objectivity and prefer to work to discover what is wrong with situations that arise.
Feeling (F) - People who prefer feeling focus on subjective decision making, based on a desire for harmony. They seek to consider the impact on people in their analysis of a situation. They value interpersonal relations, preferring to affirm what is right with situations and offering appreciation and sympathy as needed.
Preferences for orientation to the outer world
Judging (J) - People who prefer judging focus on leading a life that is organized and orderly. They seek closure and want things settled. They prefer control over their lives and plan accordingly. They desire to work, then play.
Perceiving (P) - People who prefer perceiving focus on leading a life that is flexible and spontaneous. They seek to keep decisions open and avoid closure. They prefer to experience life and adapt rather than control it. They desire to play, then work.
The combination of preferences on the four scales results in 16 possible combinations.
Source: Filbeck and Smith (1996)

The MBTI has been used in the examination of the relationship between learning styles and classroom performance (Campbell & David, 1990; Eggins, 1979; Filbeck & Webb, 2000; Geary & Rooney, 1993; Keirsey & Bates, 1978; Lawrence, 1984, 1994; McCaulley, 1976; Myers, 1979, 1980; Myers & McCaulley, 1989; and Schroeder, 1993). Eggins (1979) shows the different needs of the students which the teachers may encounter in practice.

Helgesen (1986) shows that there is a relationship between learning styles and students' perception of teaching effectiveness. Matthews (1991) demonstrates that students may be more productive when they study with strategies compatible with their preferred learning styles. Gregorc and Ward (1977), Hunt (1977, 1981), and Kolb (1984) note that students do not always learn in their preferred styles, that is, they can move from one style to another. Gregorc (1979a, 1979b), Kolb (1984, 1985), and McKenney and Keen (1974) conclude that by using learning styles, instructors can create an enhanced learning environment.

Filbeck and Smith (1996) find significant correlations between the four dimensions of the MBTI and the performance of undergraduate business students on alternative test formats. Their results imply that students' academic success can be affected by the type of questions emphasized on tests. For some MBTI types, students' test scores may not be an accurate and comprehensive reflection of their knowledge and understanding of the materials. Filbeck and Smith (1996) also find that no correlation exists between the overall test performance and any MBTI dimension. This implies that the use of a variety of test question formats allowed more MBTI types a fair chance of success in the course. Based on these results, they recommend that teachers strive to include a variety of question formats when constructing tests.

The learning-styles literature shows that students have very distinct and differing learning styles and that these learning styles correlate with their MBTI personality types. This implies that finance faculty should employ more diverse teaching and assessment strategies to effectively include all students in the learning process and, as a result, see better performance and higher achievement in their students. It also implies that in order to give all students a fair opportunity to demonstrate their mastery of the material, finance faculty should include different types of questions on every test. It also implies that an eclectic approach encourages students to develop and become adept at working in ways they do not prefer and in this way assists their professional development. It also implies that and eclectic approach not only helps stretch MBTI sensing types but also encourages more MBTI intuitive types into the discipline.

THE USE OF THE WALL STREET JOURNAL

In the context of the learning-styles tradition, in the Appendix, the paper provides one Wall Street Journal homework assignment for almost each chapter of a standard introductory finance textbook. In the previous sections, the paper briefly reviewed both the extant literature on the current teaching, learning, and assessment methods used in the field of finance and the literature on learning

styles. It noted that most finance faculty use the chalk-and-talk lecture method, which is complemented with other methods by others. Overall, finance faculty are not immersed in the learning-styles tradition. This section of the paper emphasizes that the recommended Wall Street Journal homework assignments would diversify the teaching, learning, and assessment methods in an introductory finance course and act as a step towards the learning-styles tradition. This is because, these Wall Street Journal homework assignments are beyond the traditional chalk-and-talk lecture method, they go beyond the traditional textbook end-of-chapter problems, they are group assignments which require active student participation and the group work, they provide relevance, and they are counted towards the course grade of students. The Wall Street Journal homework assignments are listed in the Appendix.

Bale and Dudney's (2000) survey results show that students prefer that "teachers: (1) clearly communicate relevance, (2) implement meaningful applications of financial tools, and (3) concentrate on student participation." Bale and Dudney (2000) advocate an eclectic model and their recommendations include:

> "*1. Use business periodicals regularly. Students identify relevance when reading articles that discuss financial topics or tools being studied. For example, instructors can have students calculate forward rates from current yield curve data or assess growth expectations for a publicly traded stock using analysts' earnings and dividend estimates. The focus is on familiarizing students with available data sources, while developing their skills at translating financial theory to practice.*
> *2. Group assignments or group quizzes are other options that force students to be active in the learning process."*

Lamb and Pace (1993) have found that the Wall Street Journal assignments "enable students to identify the relationships between the traditional classroom presentation of financial theories and their applications to current real-world business decisions." They report that "Many students have remarked at the end of each term that they learned a great deal from this exercise and that they became more aware of the relationships between theory and practice."

The Wall Street Journal homework assignments, the subject of this paper, are listed in the Appendix. They correspond to the chapters as organized in a typical introductory finance textbook, such as Brigham and Houston (2004). They are on the following topics: ethics (the introductory chapter), financial statements, financial statements analysis, financial forecasting, interest rates, risk and return, time value of money, bond valuation, stock valuation, capital budgeting, cost of capital, capital structure, dividend policy, derivative securities, and international finance.

The students are expected to photocopy the related section of the Wall Street Journal and attach it to their one-page typed answer to the assignment questions. To ensure that the articles are current the publication date of the article source should not be more than one month earlier than the due date of the assignment. The grading of these assignments is not very time consuming.

Many students at the end of each term state, among other things, that these Wall Street Journal assignments are a very useful learning tool and that they have become much familiar with the Wall Street Journal as a source of information and data and how it relates to business finance.

Appendix

Wall Street Journal (WSJ) Assignment on Introduction

Use a recent (within the last 30 days from the date of your assignment) issue of WSJ and select an article regarding a report on an ethical issue and answer the following questions:

1. Summarize the report and clearly state what the ethical issue is.
2. In which section of the WSJ was the report printed?
3. Attach a copy of the report to your assignment.

Wall Street Journal (WSJ) Assignment on Financial Statements

Use a recent (within the last 30 days from the date of your assignment) issue of the WSJ and find the "DIGEST OF CORPORATE EARNINGS REPORTS" table and the "NEW YORK STOCK EXCHANGE COMPOSITE TRANSACTIONS" table. Select a company whose name starts with the same letter (or closest to the same letter) as one of your group members' last name and that the company pays dividends. Answer the following questions:

1. What is the name of the company? What are the company's revenue and after-tax profit (or simply the profit)? Are these values generated over one week, one month, one quarter, six months, or one year?
2. Using the percentage change given for revenue and net income, calculate the revenue and net income for the company for the same period a year earlier.
3. In general, on which of the financial statements would the revenue be reported?
4. In general, on which of the financial statements would the after-tax profit (or simply the profit) be reported?
5. What are the company's annual and quarterly dividends?
6. In general, on which of the financial statements would the dividends be reported?
7. What is the company's retained earnings? Is it for one week, one month, one quarter, six months, or one year?
8. On which of the financial statements would the retained earnings be reported?
9. In which section of the WSJ was each of the above tables printed?
10. Attach a copy of each table to your assignment. Highlight the sections on which your answers are based.

Appendix

Wall Street Journal (WSJ) Assignment on Financial Statements Analysis

Use a recent (within the last 30 days from the date of your assignment) issue of the WSJ and find the "DIGEST OF CORPORATE EARNINGS REPORTS" table and the "NEW YORK STOCK EXCHANGE COMPOSITE TRANSACTIONS" table. Select a company whose name starts with the same letter (or closest to the same letter) as one of your group members' last name and that the company pays dividends. Answer the following questions:

1. What is the company's after-tax profit margin (or simply the profit margin)? Does this value correspond to one week, one month, one quarter, six months or one year?
2. Using the percentage change given for revenue and net income calculate the revenue and net income for the company for the same period a year earlier?
3. What was the company's after-tax profit margin (or simply the profit margin) for the same period a year earlier.
4. What is the trend in the company's after-tax profit margin (or simply the profit margin)?
5. What is the company's payout ratio? (Payout Ratio = Dividend/Net Income).
6. What is the company's P/E ratio?
7. Using the information on the above-mentioned two tables calculate how many shares of the company are outstanding?
8. In which section of the WSJ was each of the above tables printed?
9. Attach a copy of each table to your assignment. Highlight the sections on which your answers are based.

Wall Street Journal (WSJ) Assignment on Financial Planning and Forecasting

Use a recent (within the last 30 days from the date of your assignment) issue of the WSJ and go to the "DIGEST OF CORPORATE EARNINGS REPORTS" table. Select a company whose name starts with the same letter (or closest to the same letter) as one of your group members' last name and that its sales have increased. Then answer the following questions:

1. What is the name of the company?
2. What is the percentage change in its sales?
3. What might have happened to its expenses? Why?
4. What might have happened to its assets? Why?
5. What might have happened to its liabilities? Why?
6. Do you necessarily expect that all of its liabilities have changed? Why?
7. What might have happened to its borrowing? Why?
8. What might have happened to its equity? Why?
9. In which section of the WSJ was the table printed?
10. Attach a copy of the table to your assignment. Highlight the sections on which your answers are based.

Appendix

Wall Street Journal (WSJ) Assignment on Interest Rates

Use a recent (within the last 30 days from the date of your assignment) issue of the WSJ and go to the "Treasury Bonds, Notes and Bills" and "Corporate Bonds" tables to answer the following questions:

1. How much do you have to pay to buy one Government Bond or Note with ten years to maturity? What is the yield on it?
2. How much do you have to pay to buy one Corporate Bond with a term to maturity of ten years (or closest to ten years)? What is the yield on it?
3. Compare the yields obtained in items 1 and 2 above, and explain what might have caused the difference.
4. In which section of the WSJ was each table printed?
5. Attach a copy of each table to your assignment. Highlight the sections on which your answers are based.

Wall Street Journal (WSJ) Assignment on Risk and Return

Use a recent (within the last 30 days from the date of your assignment) issue of WSJ and:
Find the "Major Stock Indexes" table and answer the following questions:

1. What is the daily rate of return on the Dow Jones U.S. Total Market Index? The year-to-date rate of return?
2. What is the daily rate of return on the Dow Jones U.S. Large-Cap Index? The year-to-date rate of return?
3. What is the daily rate of return on the Dow Jones U.S. Small-Cap Index? The year-to-date rate of return?

Find the "Russell 2000" and "S&P 500 Index" charts and answer the following question:

4. What has been the trend for small stocks, as measured by the Russell 2000 index, versus the overall market?

Find "Market by the Slice: Performance of DJ U.S. Economic Sectors" and answer the following questions:

5. Which economic sectors experienced the greatest percentage gain, or smallest percentage loss, in value for the given trading day?
6. What economic sectors experienced the smallest percentage gain, or largest percentage loss, in value for the given trading day?

With respect to the above three parts, answer the following questions:

7. In which sections of the WSJ were the table and the chart and the information on economic sectors printed?
8. Attach a copy of the table and the chart and the information on economic sectors to your assignment. Highlight the sections on which your answers are based.

Appendix

Wall Street Journal (WSJ) Assignment on Time Value of Money

Use a recent (within the last 30 days from the date of your assignment) issue of the WSJ and:

Find the "BANKRATE.COM" table, which lists rates of interest on savings and which is published in the Wednesday issues of the WSJ, to answer the following questions:

1. What is the "Average Yield of Major Banks" in "New York" for a five-year saving?
2. Using the rate from item 1 above, how much will you have after five years if you invested $100 000?

Find the "High Yield Savings" section of the table, which lists high rates of interest on savings, to answer the following questions:

3. Which bank is listed first under "Five Years CDs"? What interest rate does this bank offer on five-year savings? That is what is its "Ann % Yld"? (This stands for "Annual Percentage Yield or APY".)
4. Use the information in item 3 above to answer this question: Suppose you wanted to make a $100, 000 purchase five years from today. One way to save for this purchase would be to invest in a CD (Certificate of Deposit). How much do you need to invest in the CD today?

With respect to the above two sets of items, answer the following questions:

5. In which sections of the WSJ were the tables printed?
6. Attach a copy of each table to your assignment. Highlight the sections on which your answers are based.

Wall Street Journal (WSJ) Assignment on Bond Valuation

Use a recent (within the last 30 days from the date of your assignment) issue of WSJ and:

Find the "Treasury Bonds Notes and Bills" table and answer the following questions:

1. What is the asked price for the U.S. Treasury Note maturing in February of 2005 and carrying a coupon rate of 7.5%?
2. What is the change in price from the previous day?
3. What is the yield to maturity on this Treasury Note?

Find the "Corporate Bonds" table and answer the following questions:

4. What is the closing price for the bond issued by one of the companies of your choosing in that table?
5. How many of these bonds traded on this day?
6. When does this bond mature?
7. Is this a premium, par, or discount bond? How did you arrive at this answer.
8. What is the yield to maturity on this bond?

With respect to the above two parts answer the following questions:

9. In which section of the WSJ was each table printed?

Appendix	
10.	Attach a copy of each table to your assignment. Highlight the sections on which your answers are based.
Wall Street Journal (WSJ) Assignment on Stock Valuation	
Use a recent (within the last 30 days from the date of your assignment) issue of the WSJ and go to the "NEW YORK STOCK EXCHANGE COMPOSITE TRANSACTIONS" table. Select a company whose name starts with the same letter as your last name. Then answer the following questions:	
1.	In general, what does "YTD%CHG" show? What is it for your company?
2.	In general, what does "CLOSE" show? What is it for your company?
3.	In general, what does "DIV" show? What is it for your company?
4.	In general, what does "YLD%" show? What is it for your company?
5.	In general, what does "PE" show? What is it for your company?
6.	Attach a copy of the table to your assignment. Highlight the sections on which your answers are based.
Wall Street Journal (WSJ) Assignment on Capital Budgeting	
Use a recent (within the last 30 days from the date of your assignment) issue of the WSJ and go to the "Deal & Deal Makers" column and find a report on an upcoming or recent mergers or acquisition. Then answer the following questions:	
1.	Write a summary of the report.
2.	What companies are involved? What type of businesses they are in?
3.	What is the size of the merger or acquisition (cash paid or value of stock exchanged)?
4.	Is this a friendly transaction or a hostile takeover?
5.	In which section of the WSJ was the report printed?
6.	Attach a copy of the report to your assignment. Highlight the relevant section.
Wall Street Journal (WSJ) Assignment on the Cost of Capital	
Use a recent (within the last 30 days from the date of your assignment) issue of WSJ and:	
Find the "Corporate Bonds" table, select a company, and answer the following questions:	
1.	What is the closing price for the bonds issued by the company?
2.	What is the yield to maturity (YTM) for the company's bonds?
3.	What is the company's after-tax cost of debt? Assume that its tax rate is 40%.
Find the "PREFERRED STOCK LISTINGS" table and answer the following questions:	
4.	What is the closing price for the company's preferred stock?
5.	What is the annual dividend for the company's preferred stocks?
6.	What is the company's cost of preferred stocks?

Appendix	
Find "NEW YORK STOCK EXCHANGE COMPOSITE TRANSACTIONS" and answer the following questions:	
7.	What is the reported stock price for the company?
8.	What is the dividend yield on the stocks of the company?
9.	What is the cost of common equity to the company? Assume that the company's dividend will grow at the rate of 5% per year.
Now use the information obtained from the above three tables to answer the following question:	
10.	What is the weighted average cost of capital (WACC) for the company? Assume that the market value of the company's equity is $25 billion the value of the company's debt outstanding is $20 billion, and the value of company's preferred stock is $5 billion.
With respect to the three tables above, answer the following questions:	
11.	In which section of the WSJ was each table printed?
12.	Attach a copy of each table to your assignment. Highlight the sections on which your answers are based.
Wall Street Journal (WSJ) Assignment on Capital Structure	
Use a recent (within the last 30 days from the date of your assignment) issue of the WSJ and go to the "New Securities Issues" and choose one of the companies reported or go to "Deals & Deal Makers" column to answer the following questions:	
1.	What is the name of the company and which security has the company issued?
2.	How many of the security have been issued?
3.	What is the price per security? What is the total amount of money raised from the public?
4.	Which firm(s) led the underwriting syndicate for this offering?
5.	Which other types of securities were offered for the given trading day?
6.	In which section of the WSJ was each report printed?
7.	Attach a copy of each report to your assignment. Highlight the sections on which your answers are based.
Wall Street Journal (WSJ) Assignment on Dividend Policy	
Use a recent (within the last 30 days from the date of your assignment) issue of the WSJ and:	
Find the "Corporate Dividend News" table and answer the following questions:	
1.	Select the first company paying a regular dividend. What is the name of the company? What is the amount of dividend announced? Is this a monthly, a quarterly, or an annual dividend?
2.	What firm, if any, announced its first ever dividend?
3.	What firm, if any, announced an increase in its dividend?
4.	What signal may the dividend announcements in items 1, 2, and 3 above give investors?
Find the stock listing table and answer the following questions:	

Appendix	
5.	What is the market reaction to the dividend announcements in items 1, 2, and 3 above?
6.	Are your answers to items 4 and 5 above compatible?
With respect to the above two sections, answer the following questions:	
7.	In which section of the WSJ was each table printed?
8.	Attach a copy of each table to your assignment. Highlight the sections on which your answers are based.
Wall Street Journal (WSJ) Assignment on Derivative Securities	
Use a recent (within the last 30 days from the date of your assignment) issue of WSJ and:	
Find the "INDEX OPTIONS TRADING" table and answer the following questions:	
1.	Select the first listed call option on the Dow Jones Industrials (DJX) Index. What is the price of the call option? What is the strike price? What is the expiration month? How many of these contracts traded?
2.	Select the next listed call option on the same index with the same expiration month but a higher strike price. What is the value of this call option? What conclusion one might draw when comparing the option prices obtained in items 1 and 2 above?
3.	What is the price of the underlying Dow Jones Industrials index? Are options in items 1 and 2 in-the-money, at-the-money, or out-of-the-money?
Find the "FUTURES" table and answer the following question:	
4.	Select the first soybean futures contract. What is the value of one such contract based on the cash price?
5.	What is the profit or loss on this contract from the previous trading day?
6.	What is the profit or loss on one contract if it was purchased one year ago and sold at the current cash price?
With respect to the above two parts answer the following questions:	
7.	In which section of the WSJ was each table printed?
8.	Attach a copy of each table to your assignment. Highlight the sections on which your answers are based.
Wall Street Journal (WSJ) Assignment on International Finance	
Use a recent issue (within the last 30 days from the date of your assignment) of the WSJ and go to the "Key Currency Cross Rates" and "Exchange Rates" and "Currency Futures" tables to answer the following questions:	
1.	According to the text accompanying the tables, where does trading in foreign currencies occur?
2.	According to the text accompanying the tables, between what parties does this trading occur?
3.	Is this an over-the-counter or organized exchange? Explain why!
4.	What are the direct quote and indirect quote of the U.S. dollar versus the currency whose issuing country's name starts with the same letter (or closest letter) as your own last name.

Appendix	
5.	By how much has this rate changed over the period reported in the tables? (State both the rate at the beginning and at the end of the reported period and find the difference).
6.	Relative to this currency, did the U.S. dollar appreciate or depreciate since the beginning of the reported period? Explain.
7.	What is the value of the Euro in terms of Japanese Yen? Verify this rate using the U.S. equivalent rate for the Euro and the Yen. (Show how you verified it).
8.	What is the U.S.$ equivalent forward rate for the Canadian dollar? Is the Canadian dollar selling at a premium or discount? Explain why! (If your argument is based on comparing numbers please include them in your answer).
9.	In which section of the WSJ was each of the tables printed?
10.	Attach a copy of each table to your assignment. Highlight the sections on which your answers are based.

REFERENCES

Angelo, T.A (1993). A 'Teacher's Dozen:' Fourteen General Research-Based Principles for Improving Higher Learning in Our Classrooms. *AAHE Bulletin*, 45(8), 3-7.

Ardalan, K. (1998). On the Use of Entertaining Metaphors in the Introductory Finance Course. *Financial Practice and Education*, 8(1), 108-119.

Atkins, A.B. & E.A. Dyl (1995). The Lotto Jackpot: The Lump Sum versus the Annuity. *Financial Practice and Education*, 5(2), 107-111.

Bagamery, B.D. (1991). Present and Future Values of Cash Flow Streams: The Wristwatch Method. *Financial Practice and Education*, 1(2), 56-59.

Bale, J.M. & D. Dudney (2000). Teaching Generation X: Do Andragogical Learning Principles Apply to Undergraduate Finance Education. *Financial Practice and Education*, 10(1), 216-227.

Barr, R.B. & John Tagg. (1995). From Teaching to Learning – A New Paradigm for Undergraduate Education. *Change*, 27(6), 13-25.

Becker, M.W. (1993). Top Ten Lists in Finance Class. *Financial Practice and Education*, 3(2), 109-111.

Berry, T.D. & E.J. Farragher (1987). A Survey of Introductory Financial Management Courses. *Journal of Financial Education*, 16(3), 65-72.

Brigham, E.F. & J.F. Houston (2004). *Fundamentals of Financial Management* (10th edition). Mason, Ohio: Thomson South-Western.

Byrd, A.K. & Y.S. Harman (1997). A Teamwork Approach to Teaching Corporate Finance. *Financial Practice and Education*, 7(1), 67-72.

Campbell, D. & C. Davis (1990). Improving Learning By Combining Critical Thinking Skills with Psychological Type. *Journal for Excellence in College Teaching*, 1, 39-51.

Carroll, J. (1963). A Model of School Learning. *Teachers College Record*, 64(8), 723-733.

Chan, K.C., M. Weber & M. Johnson (1995). Using Other People's Money in the Classroom. *Financial Practice and Education*, 5(1), 123-127.

Clinebell, J.M. & S.K. Clinebell (1995). Computer Utilization in Finance Courses. *Financial Practice and Education*, 5(1), 132-142.

Cooley, P.L. & J.L. Heck (1977). A Survey of the Introductory Business Finance Course: The Professor's Viewpoint. *Journal of Financial Education*, 6(3), 3-8.

Cooley, P.L. & J.L. Heck (1996). Establishing Benchmarks for Teaching the Undergraduate Introductory Course in Financial Management. *Journal of Financial Education*, 22(3), 1-10.

Curry, L. (1983). An Organization of Learning Styles Theory and Construct. *ERIC*, document number ED 235 185.

Curry, L. (1987). Integrating Concepts of Cognitive or Learning Style: A Review with Attention to Psychometric Standards. *Canadian College of Health Services Executives*, Ottawa, Canada.

Dahlquist, J.R. (1995). Writing Assignments in Finance: Development and Evaluation. *Financial Practice and Education*, 5(1), 107-111.

Davis, B.G. (1993). *Tools for Teaching*. San Francisco, CA: Jossey-Bass.

Dewey, J. (1938). *Experience and Education.* New York, NY: MacMillan.

Didia, D. & B. Hasnat (1998). The Determinants of Performance in the University Introductory Finance Course. *Financial Practice and Education*, 8(1), 102-107.

Dunn, R., K. Dunn & G.E. Price (1981). Learning Styles: Research vs. Opinion. *Phi Delta Kappan*, 62(9), 646.

Dunn, R., K. Dunn & G.E. Price (1989). *Learning Styles Inventory.* Lawrence, KS: Price Systems.

Dyl, E.A. (1991). Wall Street: A Case in Ethics. *Financial Practice and Education*, 1(1), 49-51.

Eggins, J.A. (1979). *The Interaction Between Structure in Learning Materials and the Personality Type of Learners*. Unpublished doctoral dissertation, Indiana University.

Erickson, S. (1999). Bringing the Introductory Finance Course to Life. *Journal of Financial Education,* 25(2), 75-81.

Filbeck, G. & L.L. Smith (1996). Learning Styles, Teaching Strategies, and Predictors of Success for Students in Corporate Finance. *Financial Practice and Education*, 6(1), 74-85.

Filbeck, G. & S. Webb (2000). Executive MBA Education: Using Learning Styles for Successful Teaching Strategies. *Financial Practice and Education*, 10(1), 205-215.

Gregorc, A.R. (1982). *Style Delineator.* Maynard, MA: Gabriel Systems.

Geary, W. & C. Rooney (1993). Designing Accounting Education to Achieve Balanced Intellectual Development. *Issues in Accounting Education*, 8(1), 60-70.

Gentry, J.A. & M.G. Helgesen (1999). Using Learning Styles Information to Improve the Core Financial Management Course. *Financial Practice and Education*, 9(1), 59-69.

Gregorc, A.F. (1979a). Learning/Teaching Styles: Potent Forces Behind Time. *Educational Leadership*, 16(4), 234-236.

Gregorc, A.F. (1979b). Learning/Teaching Styles: Their Nature and Effects. In *Student Learning Styles: Diagnosing and Prescribing Programs.* Reston, VA: National Association of Secondary School Principals, 19-26.

Gregorc, A.F. (1979c). Learning Styles: Differences Which the Profession Must Address. In C. Vacca Ed., *Reading through Content.* Storrs, CT: The University of Connecticut Press, 232-235

Gregorc, A.F. (1982). *An Adult's Guide to Style.* Maynard, MS: Gabrial Systems, Inc.

Gregorc, A.F. (1984) *Gregorc Style Delineator: Development, Technical and Administrative Manual*. Maynard, MS: Gabrial Systems, Inc.

Gregorc, A.F. & H.B. Ward (1977). Implications for Learning and Teaching: A New Definition for Individuals. *NASSP Bulletin*, 63(1), 20-26.

Gup, B.E. (1994). The Five Most Important Finance Concepts: A Summary. *Financial Practice and Education*, 4(2), 106-109.

Helgesen, M.G. (1986). *The Relationship of Preferred Learning Styles of Teachers and Students to Student Ratings of Their Teachers.* University of Illinois at Urbana- Champaign Dissertation.

Helgesen, M.G. & J.A. Gentry (1988), Cognitive Processing Preferences and Their Relationship to Finance as a Discipline, Curriculum and Profession. Working Paper.

Hunt, D.E. (1977). We Know Who Knows, But Why? In R.B. Anderson, R. Spiro & W. Montague, Eds., *Schooling and the Acquisition of Cognitive Knowledge.* Hillsdale, NJ: Lawrence Erlbaum Associates, 23-68.

Hunt, D.E. (1981). Learning Style and the Interdependence of Practice and Theory. *Phi Delta Kappan*, 62(9), 647.

Johnson, D. (1992a). Predicting Promotion to Management in the Wholesale Grocery Industry Using the Type Differentiation Indicator. *Journal of Psychological Type*, 23, 51-58.

Johnson, D. (1992b). Test-Retest Reliabilities of the Myers-Briggs Type Indicator and the Type Differentiation Indicator Over a 30 Month Period. *Journal of Psychological Type*, 24, 54-58.

Johnson, D.L., P. Joyce & S. Sen (2002). An Analysis of Student Effort and Performance in the Finance Principles Course. *Financial Practice and Education*, 12(2), 67-72.

Kane, S. (1999). Teaching Principal-Agent Problems Using Examples from Popular Music. *Financial Practice and Education*, 9(1), 116-120.

Keirsey, D. & M. Bates (1978). *Please Understand Me.* Del Mar, CA: Prometheus Nemesis Books.

Knowles, M.S. (1970). *The Modern Practice of Adult Education: Andragogy versus Pedagogy*. New York, NY: Associated Press.

Kolb, D.A. (1976). *The Learning Styles Inventory: Technical Manual.* Boston: McBer & Company.

Kolb, D.A. (1984). *Experiential Learning: Experiences as a Source of Learning and Development.* Englewood Cliffs, NJ: Prentice-Hall Inc.

Kolb, D.A. (1985). *Learning Style Inventory.* Boston, MA: McBer.

Krishnan, V.S, C.T. Bathala, T.K. Bhattacharya & R. Ritchey (1999). Teaching the Introductory Finance Course: What Can We Learn from Student Perception and Expectations? *Financial Practice and Education*, 9(1), 70-82.

Lamb, R.P. & R.D. Pace (1993). A Note on Using The Wall Street Journal and Other Business Periodicals in the Classroom. *Financial Practice and Education*, 3(2), 107-108.

Lawrence, G. (1984). A Synthesis of Learning Style Research Involving the MBTI. *Journal of Psychological Type*, 8, 35-41.

Lawrence, G. (1994). *People Types and Tiger Stripes (Third Edition).* Gainsville, FL: Center for Application for Psychological Type.

Lewin, K. (1951). *Field Theory in Social Sciences.* New York, NY: Harper and Row Publishers.

Locke, I. & S. Ebron (1998). The SPHINX Teaching Method and Its Application to a Business Finance Course. *Financial Practice and Education*, 8(1), 120-126.

Marks, B.R. (1998). An Examination of the Effectiveness of a Computerized Learning Aid in the Introductory Graduate Finance Course. *Financial Practice and Education*, 8(1), 127-132.

Matthews, D.B. (1991) The Effects of Learning Style on Grades of First-Year College Students. *Research in Higher Education*, 32(3), 253-268.

McCarty, D.E. (1995). Alternative Ways Students Can Do Compounding/Discounting: The Third Leg. *Journal of Financial Education*, 21(2), 58-63.

McCaulley, M. (1976). *The Myers-Briggs Type Indicator and the Teaching Learning Process.* Gainsville, FL: Center for Application of Psychological Type.

McKenney, J.J. & P.G. Keen (1974). How Managers' Minds Work. *Harvard Business Review*, 52(3), 27-28.

Murrell, P. & C. Claxton (1987). Experiential Learning Theory as a Guide for Effective Teaching. *Counselor Education and Supervision,* (27), 4-14.

Myers, I. (1979). *Type and Teamwork.* Gainsville, FL: Center for Application of Psychological Type.

Myers, I. (1980). *Gifts Differing.* Palo Alto, CA: Consulting Psychological Press.

Myers, I. & M. McCaulley (1989). *Manual: A Guide to the Development and Use of the Myers-Briggs Type Indicator.* Palo Alto, CA: Consulting Psychological Press.

Pascarella, E. & P. Terenzini (1991). *How College Affects Students: Findings and Insights from Twenty Years of Research.* San Francisco, CA: Jossey-Bass Publishers.

Paulsen, B.M. & J.A. Gentry (1995). Motivation, Learning Strategies, and Academic Performance: A Study of the College Finance Classroom. *Financial Practice and Education*, 5(1), 78-89.

Piaget, J. (1971). *Psychology and Epistemology.* Middlesex, England: Penguin Books.

Pratt, R.W. & J.A. Gentry (1994). Attentional and Interpersonal Characteristics of Finance Professors: Comparisons with College Students and Business Executives. *Financial Practice and Education*, 4(2), 66-76.

Reynierse, J. (1993). The Distribution and Flow of Managerial Types Through Organizational Levels in Business and Industry. *Journal of Psychological Type*, 25, 11-23.

Riding, R.J. (1991). *Cognitive Styles Analysis.* Birmingham: Learning and Training Technology.

Riding, R.J. & I. Cheema (1991). Cognitive Styles: An Overview and Integration. *Educational Psychology*, 11, 193-215.

Saunder, K.T. (2001). Teaching Methods and Assessment Techniques for the Undergraduate Introductory Finance Course: A National Survey. *Financial Practice and Education*, 11(1), 110-112.

Scarbrough, D.P. (1993). Psychological Types and Job Satisfaction of Accountants. *Journal of Psychological Type*, 25, 3-10.

Schroeder, *C.C*. (1993). New Students - New Learning Styles. *Change*, (3), 21-26.

Vermunt, J.D.H.M. (1992). *Learning Styles and Guidance of Learning Processes in Higher Education.* Amsterdam: Lisse Swets and Zeitlinger.

Vermunt, J.D.H.M. (1994). *Inventory of Learning Styles in Higher Education: Scoring Key for the Inventory of Learning Styles in Higher Education.* Tilburg: Tilburg University, Department of Educational Psychology.

Walck, C. (1992). Psychological Type and Management Research: A Review. *Journal of Psychological Type*, 24, 13-23.

Weinstein, C.E. & R.E. Meyer (1986). The Teaching of Learning Strategies. In M. Wittrock, Ed., *Handbook of Research on Teaching.* New York, NY: Macmillan, 315-327.

White, M.A. (1991a). Financial Calculations in the Classroom: A Comparative Analysis. *Journal of Financial Education*, 20(1), 95-106.

White, M.A. (1991b). Financial Problem-Solving with an Electronic Calculator. *Financial Practice and Education*, 1(2), 73-88.

THE IMPACT OF CHANGING CULTURE IN HIGHER EDUCATION ON THE PERSON-ORGANIZATION FIT, JOB SATISFACTION, AND ORGANIZATIONAL COMMITMENT OF COLLEGE FACULTY

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ABSTRACT

The purpose of this research was to analyze the impact of cultural change on the person-organization fit, job satisfaction, and organizational commitment of faculty at a small private college. The conclusion of this mixed-model study suggests that the movement of this subject college administration to a competitive, business-like model may have negatively affected the commitment of the faculty to the institution, but has not reduced the satisfaction they find inherent in their roles of teachers and researchers.

INTRODUCTION

The field of higher education recently has been undergoing a period of rapid change and many colleges and universities have been compelled to alter their cultures in attempts to survive this change. Historically, these colleges and universities occupied a unique place in American society. Their professed goals were to produce and promulgate knowledge, and their means of doing so were unchallenged by other groups in the culture. Largely immune from market forces, colleges and universities were able to fulfill their multiple purposes of education, scholarship, and service. The substantial social spillovers provided by colleges and universities justified government and nonprofit support for these institutions, and the institutions relied on these additional funds to supplement tuition revenues. Gumport (2000) described educational institutions as social entities, geared toward the cultivation of citizens and the preservation of knowledge and, for decades, the culture of higher education reflected this quasi-public role.

For higher education administrators to successfully adapt to change, it is important that they understand the historical culture of higher education and the changes that have occurred to that culture. The culture of an environment is comprised of the values of the individuals within it (Holland, 1973), but generalizing about the personalities and value sets of the diverse members of a college community is difficult. In fact, Bess (1984) claimed that any culture comprised of scholars is precarious at best and Weick (1984) argued that the very term "community of scholars" might be

a contradiction in terms (p. 15). Despite differences among individual faculty members and among institutions, though, the shared goal of creating and disseminating knowledge generally gave rise to cultures prizing freedom, peer review, shared governance, and the "discipline of dissent" (Hamilton, 2000, p. 12). Faculty members, despite their differences, also shared common personality traits. Lindholm (2003) found that most faculty members are most content in institutional environments in which they are free to work independently, remain private, and pursue their own intellectual interests. Faculty motivation was driven intrinsically by the beliefs in the shared values the faculty members held with the institution in which they worked (Blackburn & Lawrence, 1995).

Market pressures, however, have changed the world that many faculty members occupy. The insular world of scholarship and teaching many of them entered as instructors has become one of accountability and rapid evolution. Increased competition has forced institutions to be more market sensitive in the production of their educational products, and faculty can no longer produce knowledge without consideration of its immediate applicability and market appeal (Birnbaum, 2000; Keller, 1983). Many colleges and universities can no longer afford programs that are not popular with students and have moved to develop only those new programs that the market will reward. Government agencies require accountability and businesses demand training in workplace skills. Students have become market savvy consumers (Birnbaum, 2000), financial support from the government and grants has diminished, and required investments in technology have pushed many institutions toward the financial brink (Rowley, Lujan, & Dolence, 1998). The public's expectations of higher education have increased at the same time the resources of the higher education institutions have become scarcer (Association of American Colleges and Universities [AAC &U], 2002). Concurrently, competition from online providers of education and corporate universities has challenged the traditional position of colleges and universities as monopolies in the knowledge business. By necessity, academic institutions have responded to these combined pressures by changing the manner in which they do business. Colleges and universities today are likely to adopt the practices of for-profit businesses in attempts to become market sensitive (Birnbaum, 2000).

In many cases, the changes adopted by higher education institutions have fundamentally altered faculty work lives. Many faculty members selected both their occupations and their institutions prior to the changes in the field. Some resist the call for accountability, and express concern not only for the viability of their particular programs but also for the missions of their institutions (Hamilton, 2000). Perhaps more important in terms of motivation is the impact this shift might have had on the institutional fit enjoyed by faculty members. If the faculty members selected their careers and institutions originally because they believed they provided good fit, what happened to this level of fit after the institutions changed?

Person-organization fit (P-O fit) has been the subject of much research in the past 20 years. Fit, measured by its various constructs, has been associated with employee turnover, satisfaction, and job performance (Chatman, 1989). The strongest correlations exist between P-O fit and

employee turnover: In most organizations, the employee who feels that he or she does not fit simply leaves to find a better person-value congruence elsewhere (O'Reilly, Chatman, & Caldwell, 1991).

What happens, though, when job flexibility is low? For faculty in higher education, the changes that have occurred within their own institutions have been matched by changes in those of competing colleges and universities. Unlike the typical business employee, who can apply his or her trade in a variety of industrial settings, the trained academic has little option but to remain in a collegiate setting. Since most employers within this setting simultaneously changed in the same manner, the experienced faculty member may find himself or herself with nowhere to go. This lack of professional flexibility (in many cases combined with tenure considerations) often prevents a faculty member from leaving an institution – even if dissatisfied with his or her new role within it. If the members of the faculty believe that the cultural shift that has occurred in many institutions reflects values that are no longer congruent with their own, their job satisfaction, motivation, and organizational commitment might suffer. The implications of that shift on the students, academic communities, and the role of higher education in society are dire.

STATEMENT OF THE PROBLEM

Unprecedented changes have been forced upon many U.S. colleges and universities within the past 10 years (Austin, 2002; Birnbaum, 2000; Gumport, 2000; Rowley, Dolence, & Lujan, 1997). Many faculty members committed to these institutions prior to these changes and no longer hold values that match those of their employers. If faculty members no longer believe that there is a congruence of values between themselves and their institutions, their behaviors may be affected. Much of the faculty job is loosely defined, and relies upon volunteer effort and intrinsic motivation (Locke, Fitzpatrick, & White, 1984). Will the changes in the culture of higher education impact these sources of motivation?

The problem to be addressed in this study is the potential change in value congruence of college faculty following organizational change. Since the emergence of the university system in the United States, the successful education of students and the proliferation of academic scholarship has been the result of faculty commitment to their institutions and their professions. If the institutions change dramatically, this commitment could dissipate. The result of diminished commitment potentially could be an unraveling of the communities of learning that society expects and deserves from its higher education system.

PURPOSE

The purpose of this study was to identify the sources of change in the person-organization fit of faculty that might have resulted from cultural change, determine the ways in which those changes manifest themselves, and use this information to facilitate improvements in university

management. If administrators recognize and understand the sources of faculty organizational fit, they might be able to mitigate the negative impact that would result from poor fit. The changes that have been thrust upon higher education are inevitable, but the growing disconnect between faculty and their institutions is not. The clear description and analysis of the sources and implications of faculty value congruence can help administrators design systems to help faculty members adjust to the changes in higher education – without sacrificing the values that committed them to the field in the first place.

RESEARCH METHODOLOGY

This study was conducted at a small, private college that had undergone a financial crisis in 2002. (A pseudonym for this institution, *Catholic College,* is used throughout this paper.) The site was significant: The changes adopted by this college after the crisis mimicked those referenced in the literature as being adopted by many similar colleges. Unlike other institutions, though, this one had a clear line of demarcation for its change – a "before" and "after." The faculty at this college therefore had a clear sense of the changes which might not have been obvious to faculty in an institution where the same change was not as sudden.

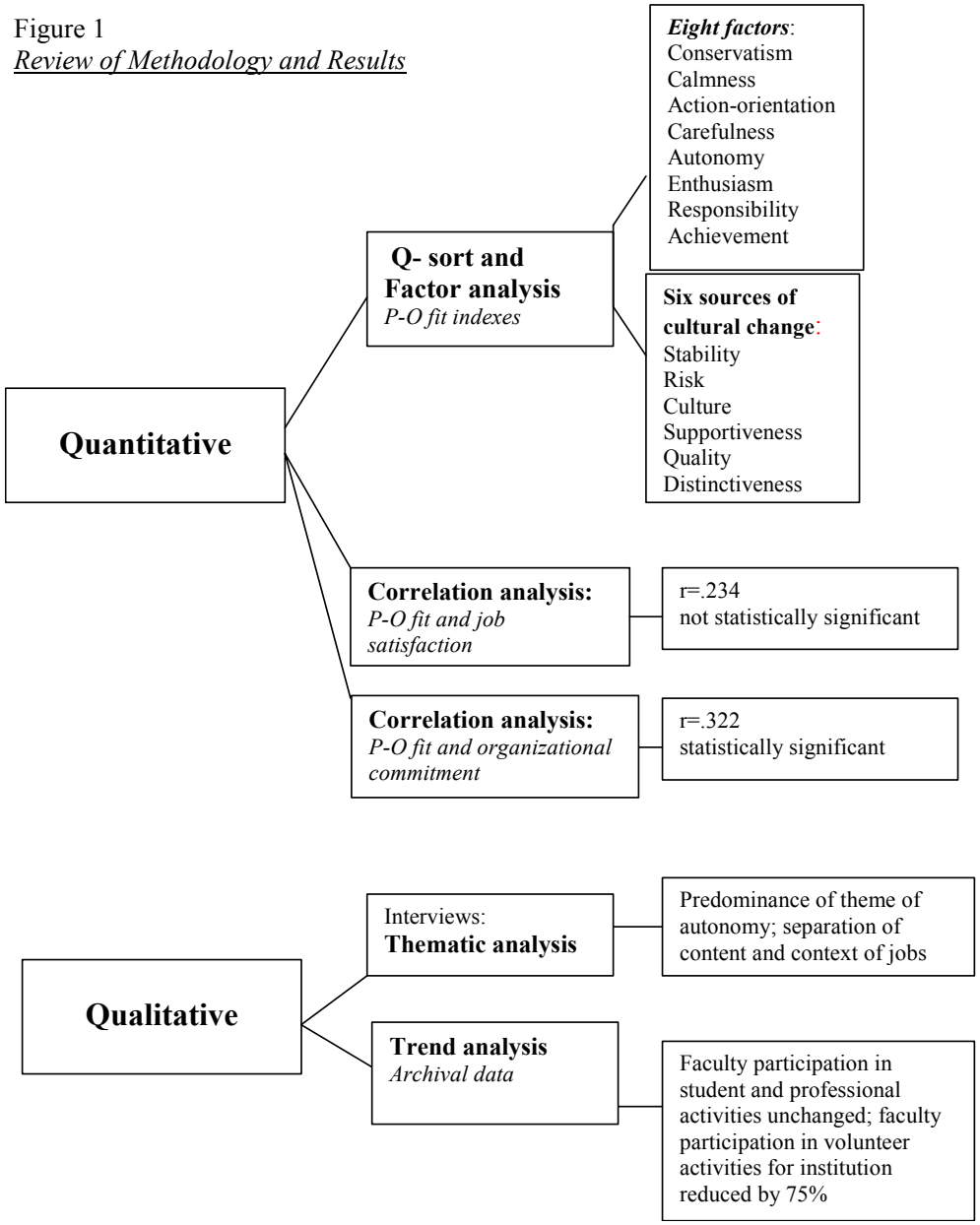
The research had both quantitative and qualitative components. The quantitative component consisted of a Q-sort exercise to determine cultural profiles, a job satisfaction survey, and an organizational commitment survey. The qualitative component of the study was comprised of faculty interviews and a trend analysis of college archival data. A summary of the research methodology and conclusions is illustrated in Figure 1.

The instruments used in the quantitative piece of the research were drawn from the corporate world, and, at times, their transfer into the different environment of higher education was not completely appropriate. In particular, the Q-sort exercise and resulting factor loadings (summarized in Appendix A) was problematic. The cultural profile factors (reproduced in Appendix B) were never defined for the faculty members, and each participant was left to interpret the statements in his or her own way. The interpretations of these statements were at times unclear when the statements were applied to a college setting. The different possible understandings of the value statements may have caused confusion among faculty members and inconsistencies in the final value profiles drawn. The qualitative component often provided insights when the quantitative tools were inconclusive.

As illustrated in Figure 1, the quantitative component of the research was comprised of three parts. First, each faculty member participated in two Q-sort exercises based on the organizational culture profile developed by O'Reilly, Chatman, and Caldwell (1991). A person-organization fit index score (P-O) was calculated as the correlation coefficient between the actual and ideal institutional profiles reported by each faculty member. Factor analysis was used to reduce the data from the faculty responses from the initial 54-item survey to eight factors. These factors are reported

in Figure 1. Next, the same cultural profile Q-sort instrument was used to discern perceptions of change at the subject college. College participants in that part of the study (those who had been at the college for five years or more) reported perceived differences in six primary areas: stability, risk, supportiveness, culture, quality, and distinctiveness.

Figure 1
Review of Methodology and Results



The second part of the quantitative component consisted of the Rusbult and Farrell (1983) job satisfaction survey that was administered to each faculty participant. (This survey is reproduced in Appendix C). The resulting scores from this survey were correlated with the indexes of P-O fit for each faculty member to determine whether the relationship between the two constructs was significant. In contrast to both the theoretical literature and prior quantitative studies (conducted in business settings), no statistically significant relationship was found to exist between job satisfaction and P-O fit at Catholic College.

The third component of the quantitative research was another correlation study; this time between P-O fit and organizational commitment. The faculty participants answered questions on the scaled Meyer and Allen (1984) organizational commitment survey (Appendix D) and their scores on this instrument were correlated with their P-O fits. In this case, the result was statistically significant: a significant relationship between P-O fit and organizational commitment at the college was confirmed.

For the qualitative part of the analysis, faculty interviews and analysis of archival data were conducted. Each faculty participant was asked to provide comments on fit, satisfaction, or commitment during open-ended interviews. Through analysis of content, a strong theme of autonomy or separation was uncovered. Trend analysis of data drawn from the college on faculty participation in voluntary events showed that this separation manifested itself only in fundraising or administrative activities. Faculty retained their historic levels of participation in events directly affecting students.

FINDINGS

This research study was developed around four primary research questions. Each of these questions and associated findings appears below.

Research question 1: What are the primary sources of value congruence and incongruence at Catholic College?

Conclusion

The quantitative Q-sort exercise revealed that the primary sources of fit for faculty at this college were within the areas of enthusiasm, concern for the individual, and the presence of a clear and guiding philosophy. Faculty participants were also congruent with the college in their dislike of competitiveness and aggressiveness. The primary sources of incongruence were the college's perceived lack of security, the long hours required, and its orientation toward rules.

The qualitative component of the research study consisted of faculty interviews. The scripts from these interviews showed that, despite the areas of continued strong value congruence with the

college, some faculty members may have become disillusioned with the changes that had occurred within the college following its financial crisis of 2002. The analysis of content of the scripts from these interviews highlighted a prevailing theme of autonomy: Catholic College faculty not only saw autonomy as the work independence, but also as a separation of the faculty members and the college administration. Faculty at the college expressed a perceived distinction between their jobs and the institution, claiming to be happy with one but discontent with the other. Semantic analysis of the scripts confirmed the severing of the ties between faculty and the college itself because whenever referring to the college (and its administration) the faculty used the word *them,* while when referring to their own divisions and faculty peers within the institution they used the word *us*.

Evidence

The faculty rankings of their top 15 ideal and actual environmental characteristics appear in Appendix E. Enthusiasm was the top ranked ideal organizational characteristic voted for by faculty, and it also ranked 4th in their actual assessment of the current cultural profile at Catholic College. Concern for individual rights ranked second in the Catholic College faculty's preferences, and was 12th on their rankings of the actual college culture. The presence of a clear and guiding philosophy was ranked fourth in the Catholic College faculty's ideal profile, and first in the actual perceived culture of the college itself. There were similarities between what the faculty members did *not* want to see in their ideal institutions and what they did not claim to see at Catholic College as well. The primary sources of similarity on the negative side were that faculty did not prize an aggressive or competitive environment (ranking the characteristics 54th and 48th respectively), and did not believe the culture of Catholic College demonstrated these traits (ranking the characteristics of the actual institution 53rd and 48th respectively). The qualitative data showed that faculty mentioned the theme of autonomy 15 times during the course of the interviews – more than any other theme.

Discussion

Austin (2002), Birnbaum (2000), Finkelstein (2003), and O'Meara, Kaufman, and Kuntz (2003) all wrote of their concerns about faculty's adjustments to the increased business focus adopted by many colleges and universities. Blackburn and Lawrence (1995) expressed the apprehension that faculty would sense the changes to a new, more aggressive business model and "become genuinely disturbed" (p. 3). The quantitative phase of this research, however, did not support the concerns of these prior authors. At Catholic College, faculty did claim that aggressiveness, competitiveness, and a reliance on analysis (all business-like characteristics) were among their least preferred organizational characteristics, but they also claimed that these same characteristics were similarly least characteristic of Catholic College. This result is surprising, because this college had made a direct, announced, and concerted effort to implement a new,

business-like strategic plan during the year prior to the start of this research. Despite that, the faculty must have recognized that while the college might have become *more* aggressive, *more* competitive, and *more* analytical because of the strategic plan, it still did not demonstrate these disliked characteristics strongly in an absolute sense. The sources of incongruence – the longer hours, the focus on rules, and the lack of security – were more likely byproducts of the financial crisis that preceded the business focused strategic plan, not consequences of the plan itself. The factors that faculty complained about in the qualitative component of the research – long hours, lack of support, low pay – were perhaps also the types of complaints any employee, if asked, would make about any organization. On their own, these comments did not disclose much unique about this, or any, college environment. However, the prevalence of the theme of separation in the analysis of content seems to suggest that the faculty participants found this disconnection troubling: they seemed to expect to feel a level of attachment to the institution that they apparently did not.

Research question 2: What are faculty member's perceptions of change at Catholic College?

Conclusion

Faculty members seemed to perceive the movement toward a more focused, niche-seeking business model as reducing the supportive, nurturing culture they remembered from the starts of their careers. For some, this may have led to a desire to divest emotionally from the institution – perhaps because they believed that the college had already divorced itself from them.

Evidence

The Wilcoxon test was conducted for each characteristic's actual and historic faculty ratings. Of the 54 value statements, only *focus on culture, willingness to take risk, distinctiveness, supportiveness,* and *stability* were found to be statistically significant at the $\infty = .05$ level.

Discussion

The overall comparisons between the levels of historic fit and current fit were not conclusive. Eight (of 22) participants showed improvements in fit; 12 showed deterioration in fit; and two showed no differences between historic and actual fit. This finding contradicts the premises of Austin (2002), Birnbaum (2000), and Finkelstein (2003) that faculty resent the movement toward a business orientation, since Catholic College's new strategic plan was pointedly in that direction. The lack of change in P-O fit between the historic profile and the actual current profile could reflect a true lack of response from faculty to the changes at Catholic College, or it could instead have been

a result of problems with the interpretation of the O'Reilly, Chatman, and Caldwell (1991) organizational profile factors within a college setting. Cultural profile factors such as *results orientation, quality, achievement orientation,* and *competitive* were often confusing to faculty participants in this study. For example, in a college environment, does *competitive* refer to student admission standards or to the college's behavior in its industry? Some faculty participants claimed that it was very possible to rank the competitiveness as *highly uncharacteristic* when referring to its relationship with incoming students but *highly characteristic* when referring to how aggressively it "sells" its product. Similarly, many faculty participants questioned the characteristic *achievement orientation. "*Who's achievement?" they asked. The college could be ranked low on this characteristic if the focus was on the students' expected performances, but high if the focus was on the achievements of faculty and staff.

While the comparison between the actual and historic aggregate indexes of fit was inconclusive, the analysis of the components of fit showed areas in which the faculty participants agreed changes had occurred. Faculty believed that the college had become less supportive, more focused on culture, more distinctive, more risk-bearing, and less stable than it had been at the start of their careers. These perceptions gel with those reported in the research in the field. Blackburn and Lawrence (1995), for example, wrote that the competitive pressures facing institutions of higher education have made them less supportive, less collegial, and more focused on commercial success. The comparison of the components within the historical cultural indexes and actual current cultural indexes indicated that the faculty members at Catholic College sensed this shift. It is possible that this perceived shift to a less supportive administrative environment was connected to the faculty feelings of separation described under the qualitative conclusions of research question 1, although it did not manifest itself directly into the P-O fit measurements.

Research question 3: What is the connection between person-organization fit and job satisfaction at Catholic College?

Conclusion

Job satisfaction, as expressed in percent terms, averaged 78% among the participants. When the indexes for P-O fit were correlated with those for job satisfaction, though, no significant relationship was demonstrated. In fact, some of the faculty members with the lowest P-O fit indexes showed the highest levels of job satisfaction. Once again, one possible explanation for this counterintuitive result might be instrumentation issues: the Rusbult and Farrell (1983) job satisfaction survey was developed for use in corporate environments, and some of the questions were confusing to faculty members. The term *satisfaction* itself, in fact, caused a large number of faculty members to ask for clarification. Faculty members who offered comments in the qualitative phase of the research distinguished between their satisfaction with their jobs (which was high) and their

satisfaction with the institution itself (which was reportedly not as high). Many faculty participants were unclear about how to respond to the Rusbult and Farrell (1983) job satisfaction survey because the questions it posed did not distinguish between these two levels of satisfaction.

Evidence

The Spearman correlation coefficient between job satisfaction and P-O fit was .234, which was not significant at the $\infty = .05$ level. The qualitative data showed 15 distinct references to the differing levels of satisfaction between the job and the institution. One faculty member commented, "There's us, there's what we do, and then there's all this craziness around us." Another claimed, "I'd take this job all over again – but it's the job; not the place."

Discussion

The lack of a significant correlation between job satisfaction and person-organization fit contradicted the prevailing research on P-O fit. Job satisfaction is a construct often referenced as a consequence of proper fit; lack of satisfaction is shown as a consequence of poor fit (Adkins, Russell, & Werbel, 1994; Caplan, 1987; Chatman, 1989; Erdogan, Kraimer, & Liden, 2002; Kristof, 1996; McCulloch & Silverhart, 2000; O'Reilly, Chatman, & Caldwell, 1991). While one potential explanation for the discrepancy between this study and previous ones could be the inappropriate use of the job satisfaction survey, Herzberg's (1959) two-factor motivation theory provides an alternative theoretical explanation for this unusual finding. When responding to the survey on job satisfaction, the faculty members focused exclusively on the job itself, not the context of the job. Their satisfaction with their roles as teachers, researchers, and scholars was high and unconnected to their feelings about the institution or their perceived value congruence with it. The qualitative component of the research confirmed that the faculty participants drew a clear distinction between the jobs they do and the environment in which they perform them. In Herzberg's terms, the faculty was able to articulate clearly the distinction between job content factors (motivators) and job context factors (hygiene factors). When answering the questions about job satisfaction, relevance was only placed on the teaching and research activities the faculty members pursued, whereas when participating in the Q-sort exercise, job content factors *(*such as *enthusiasm for the job* and *taking individual responsibility*) and job context factors (such as *high pay for performance* and *rule orientation*) were intermingled. Organizational fit, in this environment, was not significantly related to job satisfaction.

Research question 4: What is the connection between P-O fit and organizational commitment at Catholic College?

Conclusion

Fit did affect the commitment of Catholic College faculty to the institution, and this commitment level showed some degree of strain as faculty members adjusted to the new realities of their campus lives. Reduced commitment was directed solely at the college administration, though, and did not spill over into commitment to departments, divisions, or students.

Evidence

The mean commitment level was lower than that of satisfaction for the faculty as a whole, which suggested that faculty participants were more content with their jobs than with the college itself. The Spearman rank correlation between P-O fit and commitment was .322, which was significant at the .05 level.

Discussion

Despite the fact that the relationship between commitment and P-O fit was statistically significant, instrumentation issues once again arose, and the correlation might have been understated because of misinterpretations of the organizational commitment survey. Analysis of content of the scripts of the faculty comments (collected after the surveys of satisfaction and commitment) revealed that faculty interpreted the term *commitment* in two separate ways. First, they referred to commitment to their professions, divisions, and faculty peers. This commitment was high. Second, they spoke of commitment to the institution itself, which was mixed. The term commitment is perhaps too broadly defined to be useful in this setting. Affect and semantic analysis of the interview comments also indicated that there was a divide between the emotional connection the faculty felt toward their immediate peers (referring to fellow faculty members within their divisions as *us*) and the connection they felt toward the college as an institution (referring to the administration as *them*). P-O fit was shown to impact organizational commitment, but the degree to which this correlation held is suspect because of the potential misinterpretation of the commitment survey. The qualitative analysis pointed toward lower levels of organizational commitment than the quantitative instrument measured.

IMPLICATIONS

Faculty at this college did perceive changes, and these changes, for some, may have impacted their levels of P-O fit and value congruence with the college. Value congruence, though, was found only to affect organizational commitment, not the level of job satisfaction. Faculty remained highly satisfied with their jobs, even as they were, at times, openly critical of changes in college

administration. For the faculty within this study, job satisfaction was gleaned from the nature of the job itself – the teaching and the research. In Herzberg's (1959) terminology, the job content factors – the autonomy, responsibility, and feedback – of their positions continued to serve as powerful motivators.

The clear ability to separate "the job" from "the organization" may be unique to the education sector. A chemist working on a college campus, for example, may consider his or her strongest allegiance and commitment to the field of chemistry. His or her peers and reference groups may be from the field, rather than the college community. The chemist's commitment is to the field of chemistry, and his or her relationship with the college may be conditional upon the freedom to pursue professional interests while in its employment. Lindholm's (2003) qualitative research on P-O fit in a college environment aligns with this premise. She found that faculty members value three primary factors: intellectual engagement, emotional support, and structural support. Of these three, all but the third can be attained without the help of college administrations. The faculty member only relies exclusively on the institution for the third value – the structural or financial support to pursue his or her professional interest. The faculty member in this example, then, can be said to be a chemist first; a faculty member second.

An accountant or business professional in a corporate setting, on the other hand, might have a different order of allegiance. In many organizations, it is logical that the individual employee first identifies himself or herself as an employee of the company, and second as a member of a profession. This order difference may have implications for the testing of Herzberg's (1959) theory. Herzberg claimed that there were two separate sets of factors functioning at work: satisfiers and dissatisfiers. According to his theory, the dissatisfiers were related to the context of the individual's job – pay, working conditions, and management style. These *hygiene factors* caused employee dissatisfaction, but could not motivate in and of themselves. To motivate an employee, Herzberg stressed the need for motivators, or factors involving the content of the jobs themselves. *Motivators* in the Herzberg scheme included the level of responsibility in the job, the feedback from the client, the ability to be creative, and the ability to work independently. What makes an employee happy is not the opposite of what makes him or her unhappy.

Herzberg's theory has been tested in corporate settings but the conclusions have been mixed (Oshagbemi, 1997). In research studies conducted in business organizations, dissatisfaction over hygiene factors (such as pay) often spill over into self-reported overall job satisfaction (Castillo & Cano, 2004). Herzberg, Mausner, and Snyderman (1959) themselves conceded that deleterious context factors, such as poor administrative practices or low job security, could bring about poor job attitudes (p. 113). This impact, in most settings, is difficult to unravel from job satisfaction emerging from the content of the job itself. In this research study, though, the faculty participants easily and naturally separated the two. The qualitative component of this research confirmed that the level of satisfaction with the job was high because of the nature of the job itself, while the level of commitment was lower because of dissatisfaction with the administration. These results comply

closely with Herzberg's motivation theory. At this college, person-organization fit affected commitment, but not satisfaction.

Oldham and Kulik (1984) predicted that changes in the administration of colleges and universities would leave faculty members angry and disengaged. To a certain degree, the qualitative results of this study supported this premise. Faculty members at Catholic College expressed stronger loyalties to their students and professions than to the college as an institution. Oldham and Kulik, however, went on to warn that this faculty frustration would cause the faculty to reduce the time they spent on teaching, research, and service activities. The results of this study, though, indicated that because faculty are able to separate their jobs from the institution, their teaching and research efforts were unaffected by their discontent – indeed, some faculty members admitted to be turning inward toward these professional activities as they removed themselves emotionally from the operations of the college. Only extra-role activities directly benefiting the college itself showed reductions in faculty work effort.

The implications of job satisfaction that stands apart from organizational commitment, then, might be a reordering of faculty members' priorities. The job of a faculty member is loosely defined (Blackburn & Lawrence, 1995). He or she typically spends 57 hours per week working (Blackburn & Lawrence, 1995, p. 4), but often fewer than 30 of these are prescribed by college administration. Beyond class time and mandated office hours, the faculty member is free to pursue the professional activities that suit him or her best.

Finkelstein (2003) described the choices open to the faculty member as the "triumvirate" of teaching, research, and service (p. 13). In part, the time allocation the faculty member devotes to each role depends upon his or her proclivities: some faculty members, for example, may find that teaching and course development easily absorb most of their time. The institution's rewards also affect how the faculty member spends his or her hours: a culture of "publish or perish" encourages far more emphasis on research than on the other legs of the triumvirate. What determines, though, the amount of time the faculty member spends in service to the institution? It is highly possible that this function springs from a sense of the faculty member's commitment to the values and mission of the institution.

Service, it appears, is the weakest and least preferred role of the faculty position for most individuals (Blackburn & Lawrence, 1995). In terms of needs fulfillment, it is easy to envision teaching and research activities as providing immediate gratification. A published article brings esteem and recognition to a faculty member. Mentoring struggling students fulfills the need to nurture and influence. What parallel is there for time spent editing a course catalog or participating in a college fundraising activity? Only a sense of belonging and attachment to the college or university would compel a faculty member to reduce the time spent on more fulfilling activities in order to support the institution. It is in this college service function that the changes in higher education, and the low levels of organizational commitment that might arise from them, could manifest themselves. Staw (1984) claimed that faculty were motivated primarily by altruism, but this

research study suggested that this altruism operates within limits. Staw argued that the typical faculty member was driven by the need to serve. This research study does not contradict this premise, but does simplify it. At this college, faculty may be driven to serve, but their service is exclusively directed toward their students and their professions. Their altruism was not found to extend to the service of their employing institution. This conclusion was supported by archival data: at Catholic College, faculty participation in school fundraising events had dropped by at least 60% after the administrative changes following the financial crisis while teaching, scholarship, and participation with student activities remained constant.

RECOMMENDATIONS FOR FURTHER RESEARCH

This research study took place in a small, private, religiously affiliated college. There, job satisfaction was maintained after a financial crisis and rapid administrative changes. Further research, in larger and more diverse populations, should be conducted to test the resilience of faculty job satisfaction in other academic environments.

The instruments used in this study were created and tested within business settings. During the course of the research, it became clear that issues of interpretation may have affected the results of the quantitative analyses performed. A new cultural profile instrument for use in Q-sorts, a new job satisfaction survey, and a new organizational commitment survey should be developed for use in colleges and universities. Further quantitative analyses could then be conducted on P-O fit and its connections with job satisfaction and organizational commitment using instruments developed for and tested in academic environments.

This study theoretically supported Herzberg, Mausner, and Snyderman's (1959) two-factor theory of motivation. Previous quantitative studies also conducted in academic settings failed to prove that faculty clearly distinguish between motivators and hygiene factors, though (Castillo & Cano, 2004; Oshagbemi, 1997). Exploratory qualitative research should be conducted to further examine the strength of the separation of job content and job context factors on college campuses.

RECOMMENDATIONS FOR ACTION

College administrators should be made aware of the impact of organizational change on faculty commitment. The transition to a more competitive, business-like organizational model does not impact the main functions of the college – educating students and advancing knowledge – but it can impact the faculty's willingness to provide service to the college itself as an institution. Administrations should stand ready to hire additional staff to pick up these activities previously performed by faculty volunteers.

Since faculty rely on their college administrations for support (emotional and financial), the administrators should use their budgets to reward faculty performances in teaching and research.

Faculty at Catholic College expressed the belief that during the changes that had occurred on campus, the administration had reduced its support for faculty. A demonstration of financial support for the things that faculty find most important might bridge the gap between the academic and the administrative communities on campus. Administrators should also strive to communicate the details of the changing roles of faculty in the organization during transitions and, if possible, involve them in the determination of their appropriate place in this new academic environment. It is highly possible that faculty could become as committed to a business-like college as they were to the traditional faculty governance model. It may be possible to maintain faculty commitment during the transition from one model to the other with appropriate communication.

IMPLICATIONS FOR SOCIAL CHANGE

Much has been written about the impact of cultural change on the work of college faculty. Primarily, researchers have expressed concerns about the willingness of faculty to maintain their roles as teachers, scholars, and social critics as the institutions with which they are affiliated change their ways of operating. This research has found that, at least in this small college setting, these fears are ungrounded. The changing culture of this academic institution, if anything, has pushed faculty deeper into their professional worlds. At this research site, as faculty commitment to their institution faltered, their commitment to their professions was retained and their job satisfaction remained strong.

The victims of the change in faculty commitment may be the colleges and universities themselves. Reduced organizational commitment has resulted (in this research study) in a decrease in the participation in college service. This does not appear to be an insurmountable problem, though. The trend in higher education already has been toward larger and stronger administrative staffs: Faculty's decision to shirk their administrative duties just shifts these responsibilities to this growing back office workforce.

Comprehensive specialization of labor, it appears, has presented itself on college campuses. After the changes in higher education administration have been completed, it is likely that a system might emerge in which academics act purely as academics – teaching and conducting research – while strong, business-like administrations steer the institutions so that they continue to be able to support the important functions of these academic professionals.

REFERENCES

Adkins, C., Russell, C., & Werbel, J. (1994). Judgments of fit in the selection process: The role of work value congruence. *Personnel Psychology, 47,* 3, 605-623.

Association of American Colleges and Universities. (2002). *Greater Expectations.* Retrieved January 3, 2004 from www.greaterexpectations.org.

Austin, A. (2002). Creating a bridge to the future: Preparing new faculty to face changing expectations in a shifting context. *The Review of Higher Education, 25,* 2, 119-144.

Bess, J. (1984). *College and university organization: Insights from the behavioral sciences.* Amherst, MA: I & I Occasional Press.

Blackburn, R., & Lawrence, J. (1995). *Faculty at work: Motivation, expectation, satisfaction.* Baltimore: The Johns Hopkins University Press.

Birnbaum, R. (2000). The life cycle of academic management fads. *The Journal of Higher Education,* 71, 1-16.

Birnbaum, R. (2000). *Management fads in higher education: Where they come from, what they do, why they fail.* San Francisco: Jossey-Bass.

Caplan, R. (1987). Person-environment fit theory and organizations: Commensurate dimensions, time perspectives, and mechanisms. *Journal of Vocational Behavior, 31,* 3, 248 – 267.

Castillo, J., & Cano, J. (2004). Factors explaining job satisfaction among faculty. *Journal of Agricultural Education, 45,* 3, 65-74.

Chatman, J. (1989). Improving interactional organizational research: A model of person-organization fit. *The Academy of Management Review, 14,* 3, 333-348.

Chatman, J. (1989). Improving interactional organizational research: A model of person-organization fit. *The Academy of Management Review, 14,* 3, 333-348.

Center for International Business Education and Research [CIBER]. (2001, fall). *Organizational culture: Association with affective commitment, job satisfaction, propensity to remain and information sharing in a Chinese cultural context.* (Issue Brief No. 111). San Diego: Chow, C., Harrison, G., McKinnon, J., & Wu, A.

Erdogan, B., Kraimer, M., & Liden, R. (2002). Person-organization fit and work attitudes: The moderating role of leader-member exchange. *Academy of Management Proceedings, OB:FI.*

Finkelstein, M. (2003). The morphing of the American academic profession. *Liberal Education, 89,* 4, 6-15.

Gumport, P. (2000). Academic restructuring: Organizational change and institutional imperatives. *Higher Education, 39,* 67-91.

Hamilton, N. (2000). The academic profession's leadership role in shared governance. *Liberal Education, 86,* 3, 12-18.

Herzberg, F., Mausner, B., & Snyderman, B. (2004/1959). *The motivation to work.* New Brunswick, NJ: Transaction Publishers.

Holland, J. (1973). *Making vocational choices: A theory of careers.* Englewood Cliffs, NJ: Prentice-Hall Inc.

Keller, G. (1983). *Academic strategy: The management revolution in higher education.* Baltimore: The Johns Hopkins University Press.

Kristof, A. (1996). Person-organization fit: An integrative review of its conceptualizations, measurement, and implications. *Personnel Psychology, 49,* 1-49.

Lindholm, J. (2003). Perceived organizational fit: Nurturing the minds, hearts, and personal ambitions of university faculty. *Review of Higher Education, 27,* 125-139.

Locke, E., Fitzpatrick, W., & White, F. (1984). Job satisfaction and role clarity among university and college faculty. In J. L. Bess (Ed.), *College and university organization: Insights from the behavioral sciences.* Amherst, MA: I & I Occasional Press.

McCulloch, M., & Silverhart, T. (2000, September). *Assessing person-organization fit to reduce turnover.* Presented at the 24th annual IMPAAC Conference on Personnel Assessment. Retrieved April 7, 2004 from http://www.ipmaac.org/conf00/mcculloch.pdf.

Meyer, J., & Allen, N. (1984). Testing the "side-bet theory" of organizational commitment: Some methodological considerations. *Journal of Applied Psychology, 69,* 3, 372 – 378.

Oldham, G., & Kulik, C. (1984). Motivation enhancement through work redesign. In J. L. Bess (Ed.), *College and university organization: Insights from the behavioral sciences.* Amherst, MA: I & I Occasional Press.

O'Reilly, C., Chatman, J., & Caldwell, D. (1991). People and organizational culture: A profile comparison approach to assessing person-organization fit. *Academy of Management Journal, 14,* 4, 487-516.

Oshagbemi, T. (1997). Job satisfaction and dissatisfaction in higher education. *Education & Training, 39,* 8/9, 354-359.

Rowley, D., Lujan, H., & Dolence, M (1997). *Strategic change in colleges and universities.* San Francisco: Jossey-Bass.

Rusbult, C. & Farrell, D. (1983). A longitudinal test of the investment model: The impact of job satisfaction, job commitment, and turnover of variations in rewards, costs, alternatives, and investments. *Journal of Applied Psychology, 68,* 3, 429 – 438.

Staw, B. (1984). Motivation research versus the art of faculty management. In J. L. Bess (Ed.), *College and university organization: Insights from the behavioral sciences.* Amherst, MA: I & I Occasional Press.

Weick, K. (1984). Contradictions in a community of scholars: The cohesion-accuracy tradeoff. In J. L. Bess (Ed.), *College and university organization: Insights from the behavioral sciences.* Amherst, MA: I & I Occasional Press.

Appendix A
Results of Factor Analysis by Faculty Preference

Organizational Culture	Conservatism:	Calmness:	Action Orientation:	Carefulness:	Autonomy:	Enthusiasm:	Responsibility:	Achievement:
Profile Item	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7	Factor 8
Fairness	**0.701**	0.056	-0.376	-0.133	0.11	-0.02	0.248	-0.068
Competitiveness	**-0.704**	-0.144	0.101	0.194	0.013	-0.044	-0.019	-0.115
Stability	**0.666**	0.208	0.247	0.093	0.161	-0.092	-0.111	-0.15
Praise	**0.67**	-0.039	-0.157	0.144	-0.22	0.163	-0.144	-0.007
Aggressiveness	**-0.666**	-0.179	0.018	-0.113	-0.115	-0.411	-0.221	-0.105
Being calm	0.043	**0.711**	-0.183	0.13	-0.084	0.096	0.12	0.032
Rule oriented	-0.238	**0.638**	0.036	0.282	-0.096	-0.108	-0.079	0.352
Risk taking	-0.194	**-0.683**	-0.155	-0.058	-0.073	-0.109	-0.137	0.291
Low conflict	0.23	**0.523**	-0.27	-0.036	0.028	0.359	-0.002	0.116
Flexibility	0.004	**0.466**	-0.125	-0.03	0.361	-0.158	-0.4	0.346
Tolerance	0.315	**0.463**	-0.11	-0.18	0.116	-0.237	0.17	-0.285
Easy-going	0.222	**0.463**	-0.324	-0.078	0.189	0.132	0.029	-0.176
Results oriented	0.006	-0.127	**0.697**	0.034	-0.202	-0.039	-0.038	0.09
Innovative	-0.107	-0.182	**0.589**	-0.064	0.092	0.154	-0.076	**0.443**
Opportunities	**-0.431**	-0.195	**0.511**	-0.079	0.29	-0.108	-0.154	-0.272
Reflective	0.077	-0.029	**-0.422**	0.141	-0.091	0.017	**0.653**	0.051
Being careful	0.019	0.039	0.043	**0.725**	0.032	-0.033	-0.001	0.048
Experiment	-0.202	-0.106	0.441	**-0.723**	0.016	0.045	-0.131	0.106
Organized	-0.054	0.109	-0.015	**0.616**	-0.308	0.039	-0.138	-0.152
Reputation	-0.076	-0.032	0.107	**0.518**	-0.042	0.229	-0.235	-0.097
Philosophy	-0.038	-0.21	0.032	0.155	**-0.774**	-0.169	0.219	0.251
Autonomy	0.132	-0.182	-0.268	-0.332	**0.68**	-0.015	-0.076	-0.109
No rules	0.095	-0.103	0.037	0.19	**0.602**	**-0.511**	0.031	0.297
Growth	-0.128	-0.01	0.313	**0.441**	**0.541**	0.112	0.234	0.063
Fitting in	0.372	-0.107	0.009	0.098	**-0.476**	-0.12	-0.241	-0.354
Enthusiasm	0.281	-0.139	0.127	0.113	0.102	**0.619**	-0.11	0.026
Distinctive	-0.04	-0.205	0.103	-0.133	-0.003	**-0.742**	-0.111	-0.057
Supportive	0.224	0.282	-0.395	-0.199	-0.042	0.371	-0.204	0.337

Appendix B

Organizational Profile Factors (O'Reilly, Chatman, & Caldwell, 1991)

1. Flexibility
2. Adaptability
3. Stability
4. Predictability
5. Being innovative
6. Being quick to take advantage of opportunities
7. A willingness to experiment
8. Risk taking
9. Being careful
10. Autonomy
11. Being rule oriented
12. Being analytical
13. Paying attention to detail
14. Being precise
15. Being team oriented
16. Sharing information freely
17; Emphasizing a single culture throughout the organization
18. Being people oriented
19. Fairness
20. Respect for the individual's right
21. Tolerance
22. Informality
23. Being easy going
24. Being calm
25. Being supportive
26. Being aggressive
27. Decisiveness
28. Action orientation
29. Taking initiative
30. Being reflective
31. Achievement orientation
32. Being demanding
33. Taking individual responsibility
34. Having high expectations for performance
35. Opportunities for professional growth
36. High pay for good performance
37 Security of employment
38. Offers praise for good performance
39. Low level of conflict
40. Confronting conflict directly
41. Developing friends at work
42. Fitting in
43. Working in collaboration with others
44. Enthusiasm for the job
45. Working long hours
46. Not being constrained by many rules
47. An emphasis on quality
48. Being distinctive – different from others
49. Having a good reputation
50. Being socially responsible
51. Being results oriented
52. Having a clear guiding philosophy
53. Being competitive
54. Being highly organized

Appendix C

Questions used to measure job satisfaction (Rusbult & Farrell, 1983)

1. All things considered, how satisfied are you with your current job?
2. In general, how much do you like your current job?
3. Knowing what you now know, if you had to decide all over again whether to take the job you now have, what would you decide?
4. If a good friend of yours told you that he/she was interested in working in a job like yours for your employer, what would you tell him/her?
5. How does your current job compare to your ideal job?
6. How does your current job measure up with the sort of job you wanted when you took it?

Response scale: 7= high and 1 = low

Appendix D

Questions asked to measure organizational commitment (Meyer & Allen, 1984)

1. I do not feel a strong sense of belonging to my firm. (R)
2. I do not feel "emotionally attached" to this firm. (R)
3. This firm has a great deal of personal meaning for me.
4. I do not feel like "part of the family" at this firm. (R)
5. I would be very happy to spend the rest of my career with this firm.
6. I enjoy discussing my firm with people outside it..
7. I really feel as if this firm's problems are my own.
8. I think I could easily become as attached to another firm as I am to this one.(R)

R = reverse score Response scale:
1= strongly disagree, 7 = strongly agree

APPENDIX E

Values in Order of Most to Least Characteristic All Participants

Ideal	Actual
Enthusiasm	Clear philosophy
Individual rights	People orientation
Fairness	Emphasizing culture
Clear philosophy	Enthusiasm
Quality	Social responsibility
Collaboration	Collaboration
Opportunities for growth	Long hours
Supportive	Distinctive
People orientation	Rule oriented
Good reputation	Making friends at work
Social responsibility	Reputation
Praise for performance	Individual rights
Individual responsibility	Supportive
Security	Praise for performance
Flexibility	High expectations
Innovation	Fitting in
High expectations	Informality
Initiative	Individual responsibility
Tolerance	Careful
Shares information freely	Autonomy
Pay for performance	Reflective
Results orientation	Achievement orientation
Autonomy	Tolerance
Team orientation	Results orientation
Adaptable	Quality
Experiment	Team orientation
Stability	Predictability
Takes advantage of opportunities	Flexibility
Achievement orientation	Low conflict
Organized	Confronts conflict directly
Detail oriented	Innovation
Action oriented	Initiative
Reflective	Calm
Decisive	Fairness
Making friends at work	Demanding
Low conflict	Adaptability
Precise	Easy going
Confronts conflict directly	Experiment
Distinctive	Action-orientation
Analytical	Opportunities for growth
Calm	Detail orientation
Risk taking	Takes advantage of opportunities
No rules	Risk taking
Fitting in	Shares information freely
Informality	Decisive
Easy going	Stability
Predictable	Analytical
Competitive	Competitive
Careful	Organized
Demanding	No rules
Long hours	Security
Emphasizing culture	Precise
Rule oriented	Aggressive
Aggressive	High pay for performance

DIMENSIONALITY OF A STUDENT EVALUATION OF TEACHING SCALE: A TEN-YEAR REVIEW

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ABSTRACT

This work reports results of a project designed to assess the validity of a student evaluation of teaching (SET) scale employed for over ten years in a business school at a small private college. The SET instrument was developed, pilot-tested, and implemented in 1980. For the past 25 years, scale scores derived from student responses have been used as a part of the annual evaluation of faculty for promotion, merit pay and evidence of teaching success. This study has never been replicated and there is concern that the three scales may not currently be representative. In this study we apply exploratory factor analysis to evaluations conducted over the past ten years to determine if and how the factor structure may have changed.

INTRODUCTION

The study was undertaken at a comprehensive mid-size private college in an urban area of the northeastern United States. The college was founded in 1870 and has been offering programs in business administration since the early 1900s. The business school is one of three education divisions at the host college and was officially established as a separate division in 1957. AACSB International first accredited The business school in 1977. There is both an undergraduate and a graduate division. Students in both the undergraduate and graduate programs overwhelmingly come from the local MSA. The undergraduate division offers seven majors: accounting, management, marketing, finance, economics, information systems, entrepreneurship and a recently developed major, international business. There are currently about 800 undergraduates enrolled in the business school. The graduate division offers four programs: a full-time one-year MBA, and three part-time evening MBA programs including two MBAs in accounting. The full-time day MBA program has about 20 students enrolled, and the part-time evening MBA programs have approximately 230 students actively enrolled.

STUDENT PROFILES

This project concerns itself primarily with the SET survey used by students at the completion of each of their business courses. However, since 1990, the business school has administered a variety of student surveys that help us understand the changing characteristics of our students over time. These surveys have provided useful information to support outcomes assessment, curricular development, and more recently, assessment of learning. In 1997, series of surveys was developed and have since been consistently used to elicit information from graduating undergraduates, incoming MBAs, graduating MBAs, and MBA alumni. A few items from these surveys provide insight to student impressions of "educational quality" and are presented below.

UNDERGRADUATE STUDENTS

Our undergraduate student population has been transitioning from a predominantly commuter group to on-campus residents. Campus dormitories, student apartment complexes, and other housing accommodations have increased over the last decade. The percent of women in the business school has ranged from about 38 percent to slightly over 50 percent in the past decade. Table 1 presents reported majors of graduating seniors. The "Other" category in Table 1 includes dual majors, majors not currently offered, and the few students in the new international business major.

Table 1: Graduating Seniors – Major

		1997	1998	1999	2000	2001	2002	2003	2004	Total
Accounting	n	23	32	15	28	10	14	13	22	157
Economics	n	4	5	2	4	0	4	1	2	22
Finance	n	17	21	15	36	28	40	39	42	238
IS	n	5	9	18	15	18	16	19	18	118
Management	n	26	33	39	39	32	48	52	66	335
Marketing	n	8	24	8	13	14	18	23	24	132
Other	n	6	11	8	10	9	14	12	29	99
Total	n	89	135	105	145	111	154	159	203	1101

Table 2 depicts results for two items on the graduating senior survey, that indicate how satisfied the students were with respect to knowledge gained in business administration. Please note that a five-point scale of agreement was employed on these items. The results are very positive and stable over the time frame of 1997-2004. The students consistently agreed that they had developed a working knowledge of the functional areas of business (overall average of 4.48), and had developed expertise with respect to their major field (4.31).

Table 2: Graduating Seniors' Ratings Of Two Quality Dimensions of Education										
[1=Strongly Disagree … 5=Strongly Agree]										
My education has helped me to:		1997	1998	1999	2000	2001	2002	2003	2004	Total
Develop working knowledge of the functional areas of business	Mean	4.61	4.46	4.44	4.50	4.34	4.46	4.52	4.50	4.48
	n	89	136	106	145	116	156	160	206	1114
Develop expertise with respect to my major field	Mean	4.37	4.31	4.38	4.36	4.03	4.31	4.28	4.36	4.31
	n	89	136	106	146	116	157	160	206	1116

Since the vast majority of our MBA students are enrolled in the part-time evening programs, and most of them are employed full-time, a more detailed profile is provided than was for our undergraduate students. Table 3 shows that the percentage of women declined between 1999 and 2003, but has appeared to recover in 2004. Representation in the ≤25 age group has grown concurrently with growth in the unemployed status. Clearly, more students are beginning MBA studies immediately or shortly after graduation from their undergraduate programs.

Table 3: Descriptive Student Profiles of New Part-Time MBA Matriculates										
Characteristic		1997	1998	1999	2000	2001	2002	2003	2004	Total
		%	%	%	%	%	%	%	%	%
Gender	Female	50.8	31.6	54.8	52.4	46.8	42.9	41.8	49.0	46.3
	Male	49.2	68.4	45.2	47.6	53.2	57.1	58.2	51	53.7
Age	≤25	27.4	31.6	34.9	40.5	38.7	42.6	40.9	40.0	37.3
	26-35	62.9	55.3	55.8	45.3	40.3	45.9	39.4	44	48.1
	=36	9.7	13.2	9.3	14.3	21	11.5	19.7	16	14.6
UG Major	Bus/Econ	59.7	54.0	65.9	47.7	56.3	50.8	61.2	44.0	55.2
	Other	40.3	46	34.1	52.3	43.7	49.2	38.8	56	44.8
Employ-ment Status	Full-time	88.7	86.5	81.8	78.0	77.4	88.7	75.0	77.1	81.7
	Part-time	1.6	5.4	13.6	2.4	9.7	1.6	7.8	6.3	6.0
	Unemployed	9.7	8.1	4.5	19.5	13	9.6	17	16.7	12.4
Manage-ment Position in Organiz-ation	Upper	1.9	6.3	2.9	7.1	4.4	3.8	6.3	5.6	4.5
	Middle	27.8	25.0	17.1	25.0	20.0	17.3	25.0	30.6	23.3
	Supervisory	11.1	21.9	20.0	14.3	13.3	9.6	6.3	13.9	13.0
	Non-Mng	59.3	46.9	60	53.6	62.2	69.2	62.5	50	59.1

Table 4 shows results for recently graduated MBA students. The four items represented in Table 4 divulge that our MBA students were very satisfied with these measures of overall quality in the graduate business program. The reader is cautioned to take note that while Table 2 above used a five-point scale of agreement, Table 4 employs a seven-point scale of excellence. The quality dimension items of Table 4 have been ordered from highest to lowest on the basis of overall or total average. MBA graduates were consistent in their high ratings of all four items.

Graduate school faculty should feel great satisfaction in noting that Knowledge of Professors and Commitment of Faculty are the two highest rated of the items. The MBA graduates were also very impressed with the Overall Quality of Graduate Business Program and, to a somewhat lesser but still very positive degree, the Relevance of Material.

Table 4: Recent Part-Time MBA Graduates Ratings of Graduate Business Program Attributes [1=Poor 7=Excellent]

Attribute		1997	1998	1999	2000	2001	2002	2003	2004	Total
Knowledge of Professors	mean	5.89	5.94	6.16	5.76	5.90	5.78	5.92	6.16	5.94
	n	56	63	37	46	63	36	49	49	399
Commitment of Faculty	mean	5.64	5.77	6.00	5.57	5.70	5.53	5.73	5.82	5.72
	n	56	62	37	46	63	36	49	49	398
Overall Quality of Grad Business Program	mean	5.59	5.57	5.66	5.17	5.57	5.33	5.59	5.71	5.53
	n	56	63	38	46	63	36	49	49	400
Relevance of Material	mean	5.41	5.16	5.31	5.07	5.16	5.17	5.35	5.45	5.26
	n	36	63	39	46	63	36	49	49	401

GENESIS OF SET INSTRUMENT

In 1979, two faculty members undertook a project to develop a student evaluation of teaching (SET) instrument for the business school. Uncopyrighted survey instruments from eight other colleges and universities were examined, and items were selected for discussion by faculty. A process of developing new items, rewriting, discussing, and eliminating items ensued, ultimately culminating in a 37-item survey that was administered in the fall of 1979. After a year of pilot-testing and psychometric analysis (Gent, 1981), the instrument was reduced to its current 24-item form. Scales were developed via principle components analysis yielding three principle component or factor composites: classroom teaching effectiveness, grading and feedback, and course preparation and organization.

This survey instrument and its three associated scale composites have been used by the college since 1980. Faculty are not required to use this instrument, but are required to provide

evidence of teaching effectiveness as part of an annual professional activity report. Most faculty, with very few exceptions, have opted to utilize this instrument. In the assessment of teaching effectiveness, departmental peer evaluation committees, the Dean of the Business School, and the college-wide Committee on Faculty Status have all utilized the scale scores provided as part of the output of the faculty evaluation instrument.

DIMENSIONALITY AND FACTORIAL INVARIANCE

A rich literature of research results has developed over the past half century. The issue of factorial invariance is not new as evidenced by the research of Marsh and Hocevar (1984). Utilizing Campbell-Fiske (1959) Multitrait-Multmethod (MTMM) Matrix framework in which a nine-dimensional factor pattern represented the multiple traits and four course offerings the multiple methods, Marsh and Hocevar applied confirmatory factor analysis (CFA) to provide evidence of both convergent and discriminate validity as well as generalizability across the four courses. The measures were taken over a four year period in which 316 instructors taught 1264 sections of the four courses to a total of 31,322 students. They conclude that the multidimensionality is stable across the four courses, thereby establishing factorial invariance. This form of factorial invariance is cross-sectional in nature and provides no evidence of time-invariant multidimensionality.

A number of past studies have demonstrated multidimensionality of evaluation scales. There appear to be about four or five SET scales in the literature. One of these is the SEER scale developed by Marsh. It consists of 35 Items and is divided into sections identified by a subhead. The SEER scale has been shown to have 9 dimensions (Marsh and Hocevar 1984), but the dimensionality has been challenged by Abrami and dpollonia (1991). Abrami and d pollonia (1991) performed principle components analysis to show that the SEER scale has at most only 2 dimensions. D pollonia and Abrami (1997) also found unidimensionality for five other SET scales.

One reason for the finding of a single dimension can be based on information processing theory that says that an overall schema exists in the mind of the student for the individual being rated. This schema functions to reduce cognitive effort and to cue the student response to more specific items as though a halo effect across specific items affects all ratings (D pollonia and Abrami 1997; Trebinski 1985). Because this represents the cognitive process designed to reduce effort in rating teachers, it is reasonable to argue that the distinction between the various dimensional capabilities of teachers is being masked by this general impression. We shall examine the consistency of the high variance single dimension across several schemes of categorizing the courses.

METHODOLOGY

All undergraduate and MBA courses were classified into one of four groups: quantitative, technical, conceptual, or not classifiable. To be classified in one of the first three categories, the course content had to be composed of at least 70% of material from that category. If the course did not satisfy the 70% rule is was designated as not classifiable. Courses were independently categorized by the three researchers. The researchers then met to discuss variances in the classifications, and consensus was reached concerning each course. Department chairs and/or the faculty teaching the courses were contacted to review and confirm classifications.

We adopted a common factor model and ran principle axis factor analysis utilizing pairwise deletion of missing values. In order to achieve the desired simple structure and interpretable factor solution, a series of orthogonal (varimax) rotations were run. We employed the following criteria when attempting to identify the appropriate number of solutions, placing the greatest weight on interpretability of the factor solution: scree plot; minimum eigenvalue of 1.0; and parsimony, simple structure, and interpretability of factor solution.

RESULTS

Analyses for all combinations of degree (undergraduate, full-time MBA, and part-time MBA) and course classification (quantitative, technical, conceptual, and not classified) were run. The inclusion of analyses for totals (i.e., total for all quantitative courses or total for all undergraduate courses) yields 20 separate analyses. Table 5 displays eigenvalues for the first three principle axis factors extracted. Eigenvalues represent the amount of common variance among the 24 survey items that is accounted by each factor. The larger the eigenvalue, the more variance accounted for and the more important the factor is. The eigenvalues all indicate a very high percent of variance explained by the first factor before rotation. The results clearly show the dominance of one-factor solutions and provide strong support for d Apollonia and Abrami (1991; 1997) findings of unidimensionality.

Factor loadings represent correlations between the evaluation survey items and the identified factors. Each survey item has a factor loading on each factor. A large factor loading divulges a strong association between the survey item and the factor. Table 6 shows the range (largest-smallest) of the absolute value of factor loadings on the first factor of each analysis. Only 23 of the 24 survey items are included. The omitted item is he instructor generally used the full class period. This item was never intended to contribute to evaluation of teaching effectiveness, but was added to the evaluation form at the request of a college administrator. The consistently large factor loadings on factor 1 for each model underscore the fact that all survey items are strongly associated with one factor. This is further strong support for the unidimensionality of the data.

Table 5: Eigenvalues of First Three Factors and Sample Sizes for All Combinations of Degrees and Course Classifications

	Undergraduates		Full-Time Day MBA		Part-Time Evening MBAs		Total	
	n	Eigenvalue	n	Eigenvalue	n	Eigenvalue	n	Eigenvalue
Quantitative	4,032	13.43	141	15.07	1,529	13.50	5,702	13.46
		1.18		1.45		1.41		1.21
		1.01		0.91		0.93		1.01
Technical	11,154	14.08	475	17.02	3,836	14.10	15,465	14.18
		1.13		0.82		10.4		1.06
		0.92		0.77		0.91		0.95
Conceptual	13,285	14.02	674	15.18	5,805	13.81	19,764	14.06
		1.04		0.96		1.17		1.00
		0.90		0.83		0.91		0.95
Unclassified	1,990	14.03	168	13.27	919	14.52	3,077	15.04
		0.97		1.41		1.19		0.98
		0.78		1.21		0.95		0.88
Totals	30,461	14.03	1,458	16.21	12,089	13.83	14,008	14.06
		1.06		0.81		1.16		1.01
		0.92		0.74		0.93		0.97

Table 6: Ranges of Absolute Values of Factor Loadings on Factor 1 (23 survey items)

	Undergraduates	Full-Time Day MBAs	Part-Time Evening MBAs	Totals
Quantitative	0.82 0.64	0.87 0.71	0.82 0.65	0.82 0.65
Technical	0.84 0.66	0.89 0.74	0.84 0.68	0.83 0.67
Conceptual	0.84 0.68	0.88 0.69	0.83 0.64	0.84 0.67
Unclassified	0.85 0.72	0.81 0.64	0.86 0.63	0.85 0.70
Totals	0.83 0.67	0.87 0.73	0.83 0.67	0.83 0.67

CONCLUSIONS

A number of things have changed with regard to the academic environment since the original 1979 factor analysis was performed on the course evaluation survey. College faculty across the country are more likely to use new and innovative approaches to teaching as a way of improving the educational outcomes of their students. In addition to the traditional lecture method, faculty use collaborative learning techniques, team work, simulations, multi-media presentations, community

based service learning experiences and online teaching methods in the delivery of their courses. This heterogeneity of pedagogical approaches creates a richer academic environment, but might also lead to more a complex evaluation task for the student. As noted by previous researchers (D pollonia and Abrami, 1997; Trebinski, 1985), people often resort to decision strategies that simplify the task and reduce the amount of cognitive effort required to make the evaluation.

Another change that has occurred in the academic environment is the growing onsumer orientation that students and institutions have adopted since the early 1980 . In an attempt to create a more attractive roduct and increase enrollments, colleges have adopted marketing and promotional practices that traditionally were only practiced in the commercial sector. Historically, the college experience was viewed by students as a developmental experience or a set of challenges one met on the path to growth and success. Nowadays, students are more likely to view the college or university as a service provider, and they evaluate the quality of that service much like they would a consumer product. However, because college education is a complex, multi-dimensional product (not unlike medical, financial, or legal services), the evaluation task is difficult and would likely lead to the use of evaluation and decision strategies designed to simplify the task.

While we provide little evidence for either of these two explanations, the current project provides considerable empirical support for the unidimensional nature of college course evaluation instruments consistent with the solutions identified by other workers in the field.

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REFERENCES

Abrami, P. C., & S. d pollonia. (1991). Multidimensional students evaluations of teaching effectiveness Generalizability of = 1 research: Comment on Marsh (1991). *Journal of Educational Psychology, 83,* 411-415.

D pollonia, S., & P. C. Abrami. (1997). Navigating student ratings of instruction. *American Psychologist. 52,* 1198-1208.

Gent, M. J. (1981, November). An assessment of distortion in student evaluations of faculty teaching., in Proceedings of the American Institute for Decision Sciences National Conference, Boston.

Marsh, H. W. & D. Hocevar. (1984). The factorial invariance of student evaluations of college teaching. *American Educational Research Journal. 21,* 341-346.

Trebinski, J. (1985). Action-oriented representations of implicit personality theories. *Journal of Personality and Social Psychology, 48,* 1387-1397.

Gifford R. H. & H. Howe. (2004). Regulation and Unintended Consequences: Thoughts on Sarbanes-Oxley. *The CPA Journal*, 74(6), 6-8.

Gullapalli, D. (2004, September 10). Which Companies Were Tripped Up? *The Wall Street Journal*, C3.

Hagenbaugh, B. (2005). Rules spur demand for accountants. USA Today. January 18. Henry, D., A. Borrus, L. Vavelle, & D. Brady. Death, Taxes, & Sarbanes–Oxley? (2005). *Business Week*. January 17 (3916), 28.

Henry, D., A. Borrus, L. Lavelle, & D. Brady. (2005, January 17). Death, Taxes & Sarbanes – Oxley? *BusinessWeek*, (3916), 28.

James, M.. L. (2004). "Accounting Educators' Perceptions of the Sarbanes-Oxley Act of 2002 and their Role in Preparing Students for a Challenging Career." *The Academy of Educational Leadership Journal*, 8 (3), 107-128.

Karmin, C. (2003). Foreign Firms Lose the Urge To Sell Stock in U.S. Market. *The Wall Street Journal online*, Retrieved August 4, 2003, from http://online.wsj.com/article/0,,SB105899354219344400,00.html.

Levinsohn, A. (2003). Legal liability for your financial reporting? *Strategic Finance*, 85(3), 63-64.

Murray, M. (2003, July 22). Private Companies Also Feel Pressure to Clean Up Act. *The Wall Street Journal*. Retrieved August 4, 2003, from http://online.wsj.com/article/ 0,,SB10588255999810300,00.html.

Public Company Accounting Oversight Board. (2003). Mission statement. Retrieved August 2, 2003, from http://www.pcaobus.org.

SmartPros Editorial Staff. (2005). Study Suggests SOX Improving Earnings Forecasts. SmartPros. Retrieved on January 24, 2005 from http://www.smartpros.com/x46610.xlm.

U.S. Congress. (2002). One Hundred Seventh Congress of the United States of America at the second Session. Sarbanes-Oxley Act of 2002. H.R. 3763.

ACCOUNTING STUDENTS' KNOWLEDGE AND PERCEPTIONS OF THE SARBANES-OXLEY ACT OF 2002

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ABSTRACT

The Sarbanes-Oxley Act of 2002 (SOX) affects many accounting and other business professionals. As future accounting and business professionals, accounting and other business majors must be knowledgeable about the provisions of this important new act. The purpose of this study was to investigate accounting students' knowledge about key provisions of the SOX, and their perceptions regarding such knowledge.

The study found that the majority of the students knew about the financial statement certifications required by the CEO and CFO. However, the majority of the students did not know which Non-audit services auditors are prohibited from performing for audit clients. In addition, only a small percentage of the students knew what the purpose of the Securities and Exchange Commission and the Public Company Accounting Oversight Board is, and did not show a good understanding of the purpose of the SOX. Students generally perceived the need to know about SOX as high, but did not feel that they possessed such knowledge.

The results of the study suggest that additional discussions about the provisions of the SOX are necessary to prepare students for their future careers.

INTRODUCTION

The Sarbanes-Oxley Act of 2002 (SOX) was signed into law on July 30, 2002. The Act has many provisions that affect accounting as well as non-accounting business professions. As future business professionals, all business majors must be knowledgeable about the main provisions of the SOX. The purpose of this study is to investigate how knowledgeable accounting and non-accounting students are about some of the key provisions of the SOX which affect both accounting and non-accounting business professionals.

The study found that the majority of the study participants knew about the financial statement certification required by the CEO and CFO. However, the majority of the students did not know which NAS auditors are prohibited from performing for their audit clients. In addition, only a small percentage of the students knew what the purpose of the Securities and Exchange Commission (SEC) and the Public Company Accounting Oversight Board (PCAOB) is and very few study participants knew the name of the current chair of the PCAOB. The majority of the students

did not show a good understanding of the scope and purpose of the SOX. Students generally perceived the need to know about SOX as high, but did not feel that they possessed such knowledge.

As expected, accounting majors and particularly students who had completed a larger number of accounting classes were more likely to correctly answer some of the questions than were non-accounting majors and those who had completed only a few accounting classes. The overall low rate of correct responses to the questions suggest that additional coverage of the SOX in accounting as well as other business classes would be beneficial to the future business and accounting professionals.

BACKGROUND LITERATURE

The Sarbanes-Oxley Act of 2002 (SOX) was signed into law by President Bush on July 30, 2002. The Act was lawmakers response to highly publicize financial reporting scandals such as those involving ENRON and WorldCom that have impaired investors' confidence in financial reporting and auditing. The intended purpose of the Act is "To protect investors by improving the accuracy and reliability of corporate disclosures made pursuant to the securities laws, and for other purposes." (U.S. Congress, H.R. 3763, 2002).

The provisions of the SOX directly or indirectly affect many business professionals, including accountants, managers and executives, financial statement analysts and even attorneys. The provisions of the SOX are detailed in eleven titles, each with a number of subsections. The SOX also provides for strict penalties for SOX violations, which constitute violations of the SEC Act of 1934 (U.S. Congress, H.R. 3763, 2002). The key provision of the SOX subject to this study are discussed in the following paragraphs.

Provisions of the SOX

Title I of the SOX details the establishment of the PCAOB. It also sets forth the composition, scope and duties of the PCAOB. Consistent with Title I, the PCAOB has five member, of which three must be non-CPAs, and only two can be CPAs (H.R. 3763, 2002, Section 101). The PCAOB's mission is "...to oversee the audits of public companies in order to protect the interests of investors and further the public interest in the preparation of informative, fair, and independent audit reports." (PCAOB, 2003). The former president of the Federal Reserve Bank of New York, Mr. William J. McDonough, serves as the PCAOB's current chair . As part of its scope and authority, the PCAOB requires that all audit accounting firms that audit U.S. SEC registrants register with the board and pay the required registration fee. This includes both U.S. and non-U.S. audit firms if they audit U.S. SEC registrants. The PCAOB also reviews these audit firms each year or every three years, depending on the number of audits conducted by the firm. (U.S. Congress, HR

3763, 2002). The Board has recently released its first report regarding its review of the Big 4 audit firms (Gullapalli, 2004).

The SOX also grants the PCAOB the authority to promulgate auditing standards and regulations and has already issued several of them. Prior to the creation of the PCAOB, the American Institute of Certified Public Accountants' Auditing Standards Board promulgated auditing standards and rules.

Title II of the SOX addresses auditor independence. Specifically, consistent with Section 201 of the SOX, public accounting firms may not provide the following NAS to audit clients:

> "(1) bookkeeping or other services related to the accounting records or financial statements of the audit clients;
> (2) financial information systems design and implementations;
> (3) appraisal or valuation services, fairness opinions, or contribution-in-kind reports;
> (4) actuarial services;
> (5) internal audit outsourcing services;
> (6) management functions or human resources;
> (7) broker or dealer, investment advisor, or investment banking services;
> (8) legal services and expert services unrelated to the audit; and
> (9) any other service that the Board determines, by regulation, is impermissible."
>
> (U.S. Congress, H.R.3763, 2002, 201).

Initially, even tax services were considered for inclusion in the prohibited NAS. However, currently public accounting firms may still provide tax compliance and planning services for their audit clients if they are pre-approved by the companies' audit committees. In addition, all other NAS not specifically prohibited, must be approved by the audit committee prior to performance (U.S. Congress, H.R. 3763, 2002, 202).

Effect of the SOX

A recent article in Business Week was titled, "Death, Taxes, and Sarbanes - Oxley?" (Henry et al., 2005). The article addressed the difficulties, costs, and the likely benefits of the SOX. It stated that on average big companies spend $35 million to comply with audit-disclosure regulations, which have been expanded greatly by the SOX (Henry et al., 2005).

Many individuals are affected by the SOX. These include not only financial managers, controllers, and treasurers, but anyone within an organization who contributes to the organization's financial reporting to the SEC (Levinsohn, 2003). In fact, one survey by the Association for Financial Professionals found that consistent with SOX section 302, 37% of the executives working for public companies and 20% of the executives working for private companies were requested to certify the accuracy of their financial information. (Levinsohn, 2003).

For accounting majors, knowledge and understanding of the provisions of SOX is critical, as many provisions directly affect accountants (e.g., their ability to provide services to clients and

the PCAOB registrations) and their clients (e.g., the financial statement certification). In fact, the demand for accounting majors has increased significantly and some of this increasing demand has been spurred by the SOX (Hagenbaugh, 2005). While during the past year, the number of students graduating with an accounting degree has increased by 11%, more graduates are needed to fill the available positions (Hagenbaugh, 2005).

Intentional and unintentional consequences of the SOX may arise. For example, the stringent limitation of NAS is expected to decrease audit committee's willingness to accept proposals for any NAS. (Gifford & Howe, 2004). Furthermore, the recent decrease in the amount of capital raised by foreign firms in U.S. markets may be attributable to uncertainties about the jurisdiction of the SOX regarding these capital ventures (Karmin, 2003).

SOX applies specifically to public SEC reporting entities. However, a 2003 survey by Robert Half Management found that 58% of the CFOs in surveyed private companies reported that their organization had improved or planed to improve the control of their accounting practices. Furthermore, 36% reported that they have established a new or expanded an existing internal audit function within their organization, and 44% reported that they have reviewed or adapted their current accounting practices (Murray, 2003).

Another potential positive consequence of the SOX is that the percentage of S&P 500 companies that fail to meet their earnings expectations by at least 10% - reporting income either above or below expectations - has decreased significantly in 2004 (SmartPros Editorial Staff, 2005).

Accounting Educators' Role

Because the SOX is likely to affect the careers of many accounting and other business professionals, accounting and business majors must become familiar with the provisions of the SOX. Accounting and business educators play a key role in helping students learn about the provisions of the SOX to understand the requirements, and to know how to comply with them. A recent survey of accounting faculty (James, 2004) found that by Summer 2003, 67% of the faculty already had implemented discussions of the SOX in their classes. The study also suggested that the majority of the faculty supported the provisions of the SOX (James, 2004). While a high percentage of accounting educators already appear to have implemented discussions of SOX into their curriculum, the degree and extend of coverage is likely to vary, and so is the degree of students' knowledge.

Research Question and Objective of the Study

The degree of future instruction and discussion needed in accounting and other business-related classes depends on students' current knowledge of key provisions of the SOX. Thus, more must be known about students knowledge of the SOX. In addition, students' perceptions regarding

their knowledge of SOX and the importance of such knowledge are significant, as they affect their interest in acquiring such knowledge.

RESEARCH METHODOLOGY

A questionnaire was developed and administered at the beginning of each quarter in four sections of Managerial Accounting in Spring and Fall 2004, one section of Case Studies in Accounting in Fall 2004, and one section of Advanced Accounting in Winter 2005. All business majors are required to complete Managerial Accounting, which is an upper division accounting class at this Western region university. The prerequisites for Managerial Accounting are the successful completion of Principles of Accounting I and II. Case Studies in Accounting is the last required accounting class completed by accounting majors. Advanced Accounting is an elective course and typically one of the last classes completed by accounting majors prior to graduation. The prereguisite for Advanced Accounting is Intermediate Accounting II. Prior to administering the questionnaire, one faculty member and two students reviewed the questions for validity.

Two-hundred-six students completed the questionnaire, which consisted of twelve questions, some with multiple parts. One question addressed the purpose of the SOX. Several choices were provided. Two questions asked students to indicate agreement or disagreement with the statements that SOX only applies to U.S. corporation and to U.S. accounting and audit firms. A multi-part question addressed NAS and asked students whether auditors currently were permitted to perform these services for their audit clients. All the services that are prohibited by the SOX were included as well as two services that are still permitted (i.e., tax compliance and planning services). Possible responses to these questions were "yes" and "no."

Two questions addressed the CFO and CEO financial statement certification requirements. Possible responses are "yes" or "no." In addition, three open-ended questions asked students to state the purpose of the PCAOB and the SEC and to name the chair of the PCAOB. Three questions addressed students perceptions regarding their knowledge of SOX and the importance of such knowledge. Finally, some of the questions were demographics-type questions. The data was evaluated utilizing two-sample t-tests, ANOVA, and Pearson Correlations.

HYPOTHESES

While the SOX affects many business professionals, many of its provisions directly affect accountants and their clients. For example, accountants in public practice are now prohibited from performing most NAS for their audit clients. In addition, public accounting firms who audit U.S. companies that file financial reports with the SEC must now register with the PCAOB, pay registration fees, and comply with the board's regulations and rules. Thus, accounting majors may

be more likely than non-accounting majors to have learned about some of the main provisions of the SOX. Thus H1 states:

H1: Accounting majors are more likely to be knowledgeable about key provisions of the SOX than non-accounting majors.

The students enrolled in Advanced Accounting and Case Studies in Accounting (400-level) classes already had completed a significantly higher number of accounting classes than those students enrolled in Managerial Accounting (300-level) and thus should have had additional opportunities to learn about the SOX in class. Thus, accounting students who have completed a larger part of their accounting curriculum are more likely to be knowledgeable about the provisions of the SOX, than those who have completed only a few accounting classes. Thus H2 states:

H2: Accounting students who are enrolled in 400-level classes are more likely to be knowledgeable about the provisions of the SOX than those you are enrolled in 300-level classes.

RESULTS

Demographics

The students were asked to indicate their major, age, academic standing, gender, ethnicity, working status, any non-English languages they spoke, and whether they had lived or traveled abroad. Of the 206 study participants, 42% were accounting majors, and 58 % were non-accounting business majors. Forty percent indicated that they were sophomores, 27% that they were juniors, 28% that they were seniors and 5% that they were graduate students.

Ten percent of the students were less than 21 years old, 45% were between 21 and 25 years old, 20% were between 26 and 30 years old, 10 percent were between 31 and 35 years old, 11% were between 36 and 40 years old, and 4% were more than 40 years old. Four percent of the students indicated that they were African-American, 65% that they were Asian, 9% that they were Caucasian, 16% that they were Hispanic, and 6% that they were of another ethnic group. Fifty-seven percent were female and 43 percent male. Sixty percent of the students indicated that they currently worked. Fifty-three percent indicated that they had lived in a non-U.S. country and 75% indicated that they had traveled abroad. Eighty-nine percent indicated that they spoke a language other than English. The most common non-English language was a Chinese language.

Study Results

Table 1 shows the correct responses to the questions, and the percentages of all the students who correctly answered each question.

Table 1: Question/Statement			
(n = 206)	Correct Answer	% Answering correctly	Standard Deviation
1. SOX applies only to U.S. businesses.	No	39	48
2. SOX applies only to accounting and audit firms	No	46	30
3. Purpose of the SOX	restore investors' confidence	23	3
4. Type of services financial statement auditors prohibited from performing for their audit clients.			
__ bookkeeping services	Yes	38	47
__ actuarial services	Yes	23	39
__ management functions or human resources	Yes	46	48
__ tax compliance services	No	65[a]	51
__ broker or dealer, investment advisement and banking services	Yes	50	45
__ financial info. systems design and implement.	Yes	40	47
__ appraisal or valuation services	Yes	31	43
__ internal audit outsourcing	Yes	34	44
__ tax planning services	No	63[b]	47
__ legal and expert services	Yes	33	46
5. CEOs of public companies must certify their financial statements	Yes	75	42
6. CFOs of public companies must certify their financial statements	Yes	85	34
7. The purpose of the SEC	regulate securities markets; protect investors	39	42
8. The purpose of the PCAOB	to oversee audits of public companies	16	25
9. Who is the Chair of the PCAOB	William McDonough	2	5

a 36 percent thought that it was prohibited
b 33 percent thought that it was prohibited.

Table 2: Comparison of Accounting and Non-Accounting Majors			
Tests of Hypothesis H2			
Question/Statement	Percentage Correct 300-level classes (n = 144)	Percentage Correct 400-level classes (n = 62)	p-value
1. SOX applies only to U.S. businesses [a]	32	58	0.00
2. SOX applies only to accounting and audit firms [a]	45	50	0.35
3. Purpose of the SOX	15	46	0.00
4. Type of services financial statement auditors prohibited from performing for their audit clients.			
__ bookkeeping services	35	48	0.39
__ actuarial services	19	38	0.12
__ management functions or human resources	43	54	0.46
__ tax compliance services [b]	36	33	0.35
__ broker or dealer, investment advisement and banking services	44	69	0.13
__ financial info. systems design and implement.	40	54	0.23
__ appraisal or valuation services	30	37	0.65
__ internal audit outsourcing	28	54	0.01*
__ tax planning services [b]	33	45	0.46
__ legal and expert services	32	38	0.88
5. CEOs of public companies must certify their financial statements	78	67	0.15
6. CFOs of public companies must certify their financial statements	87	81	0.40
7. The purpose of the SEC	33	58	0.00**
8. The purpose of the PCAOB	8	39	0.00**
9. Who is the Chair of the PCAOB	1	8	0.00**

a This statement was incorrect.
[b] These tax services are permitted consistent with SOX.
* significant at $p < 0.05$.
** significant at $p < 0.01$.

Students' knowledge regarding key provisions of the SOX varied considerably. The highest percentage was associated with the CFO and CEO certification requirement. Eighty-five percent of the students knew that the CFO and 75% knew that the CEO of SEC registered firms must certify their company's financial statements. For the NAS services, overall the correct responses varied from 31 to 66 percent. The majority of the students did not know the purpose of the SOX, the SEC, and PCAOB.

The percentages of correct responses varied considerably between the 300 and the 400-level classes on some of the questions. Thus, the following discussion presents separate results for the 300-level and 400-level classes.

The participants were asked whether the SOX applies only to U.S. companies and 68 percent of the 300-level (Managerial Accounting) students and only 42 percent of the 400-level (Advanced and Case Studies) students answered "yes." Since SOX applies to both U.S. and non-U.S. SEC registrants, only 32% of the 300-level and 58% of the 400-level students answered this question correctly. The participants were also asked whether the SOX applies only to U.S. audit and accounting firms and 55 percent of the 300-level and 50 percent of the 400-level students answered "yes." Since all U.S. and non-U.S. audit firms that audit SEC registered firms must comply with the provisions of the SOX, approximately half of the student answered this question incorrectly.

When asked to identify an objective or purpose of the SOX, only 15% of the 300-level students and 46% of the 400-level students were able to identify "restore investors' confidence in financial reporting." The most common incorrect answers were "to guarantee that financial statements are accurate" and "to protect accountants." Thus, the misconception that financial reporting regulation can guarantee accuracy of the information appears to be prevalent.

Students were asked whether auditors are permitted to perform certain NAS for audit clients. All the services currently prohibited were included, as well as the two services that are currently permitted (tax planning and compliance). Only between 19 and 44 percent of the 300-level students could correctly identify the services currently prohibited by the SOX. The lowest percentage was associated with actuarial services and the highest with brokerage services.

Between 37 and 69% of the students in 400-level classes correctly identified the NAS services that are prohibited. The highest percentage was associated with brokerage services and the lowest with appraisal services. Thirty-three percent of the 300-level students and 45% of the 400-level students erroneously believed that tax planning was prohibited, while 36 percent of the 300-level and 33% of the 400-level students believed that tax compliance services were prohibited.

Students were asked whether the CEOs and CFOs of public companies were required to certify their financial statements filed with the SEC. The majority of the 300-level and the 400-level students knew that the CEO and the CFO are required to certify their financial statements. The students also were asked to indicate or describe the purpose of the SEC. All answers that described at least some aspect of the SEC's purpose were accepted as correct. Only 33% of the 300-level students and were able to correctly describe the purpose of the SEC. Fifty-eight percent of the 400-

level students were able to correctly identify the SEC's purpose. Only 8% of the 300-level students and only 39% of the 400-level students were able to correctly identify the purpose of the PCAOB. Only 1% of the 300-level students and 8% of the 400-level students were able to name the chair of the PCAOB.

Test of Hypothesis

Hypothesis H1 tests whether accounting majors are more likely to be knowledgeable about key provisions of the SOX than non-accounting majors. Pearson correlation and two-way ANOVA suggest that accounting majors are more likely to know that SOX applies not only to U.S. but also to some non-U.S. firms and that auditors cannot perform actuarial and internal audit services for their audit clients ($p<0.05$).

Hypothesis H2 tests whether students who had completed a larger number of accounting classes (400-level students) were more likely to be knowledgeable about the provisions of SOX than accounting students who have completed only a few accounting classes (300-level students). Statistical results also are shown in Table 2 above.

Two sample t-tests show that 400-level accounting students tended to be more knowledgeable than 300-level students with respect to several of the questions. Specifically, 400-level students were more likely to know that SOX applies to U.S. and non-U.S. SEC registered firms ($p<0.01$). They also were more likely to correctly identify the intended purpose of SOX ($p< 0.01$). In addition, 400-level student were more likely to know that internal audit services could not be performed for audit clients (p-value < 0.05). Furthermore, a significantly higher percentage of 400-level students were able to state the purpose of the SEC (p-value < 0.05) and the PCAOB (p-value < 0.01), and name the chair of the PCAOB.

Student Perceptions

The students were asked to rate three statements on a five-point scale, where 5 was equal to strongly agree, and 1 was equal to strongly disagree.

Table 3: Students' Perceptions of SOX Knowledge and Importance of SOX Knowledge

Statement	300-level (n = 144)	400-level (n = 62)	p-value
I need to know about SOX	4.3	4.8	0.00**
SOX is important only to accounting majors	2.8	2.2	0.00**
I am knowledgeable about the provisions of SOX	2.2.	2.4	0.28

When asked to rate the statement "I need to know about the Sarbanes-Oxley Act 2002, the 300-level students' mean rating was 4.3, while the 400-level students' rating was 4.8. When asked to rate the statement "The SOX is only important to accounting majors, the 300-level students' rating was 2.8 and the 400-level students' mean rating was 2.2. When asked to rate the statement "I am knowledgeable about the provisions of the Sarbanes-Oxley Act," the 300-level students' mean rating was 2.2 and the 400-level students' mean rating was 2.4. Two sample t-tests suggest that 400-level students rated the need to know about SOX as higher than the 300-level students. In addition, 400-level students were less likely to perceive that the SOX is only important to accounting majors. Surprisingly, the 400-level students did not perceive themselves as more knowledgeable than the 300-level students.

CONCLUSIONS

The study found that students are knowledgeable about some of the provisions of the SOX (the CFO and CEO certification requirement) but not very knowledgeable about other aspects of the SOX (e.g., NAS, the scope of the SOX).

As expected, accounting majors and particularly students who had completed a larger number of accounting classes were more likely to correctly answer some of the questions than were non-accounting majors and those students who had completed only a few accounting classes. On average, students perceived the need to know about the SOX as very high. Surprisingly, students who had completed a larger number of accounting classes did not feel more knowledgeable than those who had not. The overall low rate of correct responses to many of the questions suggest that additional coverage of the SOX in accounting as well as other business classes would be beneficial to prepare accounting and other business majors for their future careers.

REFERENCES

Gifford R. H. & H. Howe. (2004). Regulation and Unintended Consequences: Thoughts on Sarbanes-Oxley. *The CPA Journal*, 74(6), 6-8.

Gullapalli, D. (2004, September 10). Which Companies Were Tripped Up? *The Wall Street Journal*, C3.

Hagenbaugh, B. (2005). Rules spur demand for accountants. USA Today. January 18. Henry, D., A. Borrus, L. Vavelle, & D. Brady. Death, Taxes, & Sarbanes–Oxley? (2005). *Business Week*. January 17 (3916), 28.

Henry, D., A. Borrus, L. Lavelle, & D. Brady. (2005, January 17). Death, Taxes & Sarbanes – Oxley? *BusinessWeek*, (3916), 28.

James, M.. L. (2004). "Accounting Educators' Perceptions of the Sarbanes-Oxley Act of 2002 and their Role in Preparing Students for a Challenging Career." *The Academy of Educational Leadership Journal*, 8 (3), 107-128.

Karmin, C. (2003). Foreign Firms Lose the Urge To Sell Stock in U.S. Market. *The Wall Street Journal online*, Retrieved August 4, 2003, from http://online.wsj.com/article/0,,SB105899354219344400,00.html.

Levinsohn, A. (2003). Legal liability for your financial reporting? *Strategic Finance*, 85(3), 63-64.

Murray, M. (2003, July 22). Private Companies Also Feel Pressure to Clean Up Act. *The Wall Street Journal*. Retrieved August 4, 2003, from http://online.wsj.com/article/ 0,,SB10588255999810300,00.html.

Public Company Accounting Oversight Board. (2003). Mission statement. Retrieved August 2, 2003, from http://www.pcaobus.org.

SmartPros Editorial Staff. (2005). Study Suggests SOX Improving Earnings Forecasts. SmartPros. Retrieved on January 24, 2005 from http://www.smartpros.com/x46610.xlm.

U.S. Congress. (2002). One Hundred Seventh Congress of the United States of America at the second Session. Sarbanes-Oxley Act of 2002. H.R. 3763.

COMPETITIVE INTELLIGENCE IN HIGHER EDUCATION: OPPORTUNITIES AND THREATS

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ABSTRACT

Despite widespread use of strategic planning processes in universities, few leaders in higher education have taken advantage of competitive intelligence techniques. This paper highlights operational threats faced by today's higher education leaders and illustrates how competitive intelligence can help mitigate threats in a university environment. A useful framework for identifying appropriate competitive intelligence analytical techniques that may be utilized to minimize the overall impact of each threat is provided.

INTRODUCTION

Competitive intelligence (CI) techniques systematically and ethically gather, analyze and disseminate external information that can assist with organizational decision-making and the design of strategic and operational plans. (SCIP, 2004). Examples of CI include benchmarking, background checks, competitor assessments, network analysis, war gaming and won-loss analysis.

Use of competitive intelligence practices continues to grow at a substantial pace among US corporations with spending for CI estimated in excess of $2billion annually in 2001 (SCIP, 2001). A 2004 survey revealed that 15.3% of companies reported expenditures of over $500,000 and another 11% reported spending more than $1 million that year on CI (SCIP 2004) . Yet interest in CI in higher education has remained primarily focused on the development of educational programs and curricula to prepare accredited competitive intelligence professionals (Blenkhorn & Fleisher, 2003; Miller, 2003, Gubeno et, al, 2003; Shelfer, 2003; Gilad, 2003).

However, universities face a category of emerging threats including shrinking enrollment, rising costs, demographic changes, online competition, increasingly competitive fund-raising environments, accreditation pressures, recruiting needs, onerous regulatory requirements and shrinking state and federal funding opportunities. Indeed, the uncertainty emerging from these threats necessitates that universities place a strong emphasis on improving efficiency and effectiveness in how they structure, manage and deliver these services to its constituents. Competitive intelligence activities, as part of a broader strategic planning process, can assist a university with improving oversight of the environments by implementing competitive assessment techniques across university departments.

STRATEGIC PLANNING IN UNIVERSITIES

Strategic planning has been a relatively recent phenomenon in higher education as changing environments have forced universities to reinvent themselves to survive (Hughes and White, 2005). It has been argued that universities have been slow to adopt these techniques because of the lack of consensus in the utility of these practices for this environment (Rowley et al., 1997).

Lerner (1999) suggested that universities have had limited success in applying traditional strategic planning models because of differences in the orientation of those implementing such models. For example, traditional strategic planning variables such as customer segment, market segment, competitive rivalry and motivation, reward systems and market-based outcomes do not align well with non-profit environments (Lerner, 1999; Wagner, 2003). Individuals who lack a traditional for-profit orientation may not understand or feel comfortable adapting some of these variables and processes for their non-profit environments. Finally, from an historical perspective, it appears that most university strategic planning efforts have not reached their potential either due to a lack of institutional support, appropriate planning coordination or institutional fortitude (Rowley, et al., 1997).

Only a few studies have looked at the impact of university-wide strategic planning. For example, Rindfleish (2003) found that strategic planning in Australian universities was enhanced by the implementation of segment profiling which increased the identification of attractive market segments for universities to explore for further development. Moreover, Duke (2001) addressed the utility of competing paradigms of networks and managerialism for managing the complex local-global environments which surround universities. Using an Australian University as a case study he argued that reinventing a university in a changing environment may be more beneficially achieved by networking and that a sense of shared purpose and culture can lead to greater levels of morale which can ultimately lead to higher levels of productivity for the organization. In an analysis of the process of strategic planning at an Australian University, Crebert (2000), found that, in general, the university culture was starting to embrace the need for strategic and business planning but that the process was still met by some degree of resistance from department heads who felt the process had been imposed on them by decree rather than by consent. Finally, Zajac and Kraatz (1993) examined the environmental and organizational forces impacting strategic restructuring in higher education by assessing the performance consequences of these changes on the organization. The author proposed a model of likely antecedents and consequences of strategic restructuring and change and found that restructuring is a predictable, common and performance-enhancing response to change in the environment.

At the university departmental level there appears to be more recognition of both the need for and the value of implementing a strategic planning process. Smith and Ferris (2002) investigated the extent of human resource strategic plans in universities by investigating universities that were considered to be in a declining state. The results of their survey indicated that few (8%) of the

respondents indicated that their university actually had a strategic human resource plan for managing the human resource capability within their organizations. Furthermore, these institutions realized that they needed to be doing a better job of tying pay to performance but less than half of the respondents (43%) actually did have merit-based reward systems in place. In sum, the author argued that universities must do a better job of managing their talent pool in the future or they risk losing their valuable employees to other industries

McCredie (2004) offered a prescriptive approach for implementing strategic planning in information technology departments within universities. The author suggested that absent an ongoing information technology strategy formulation process and funding cycle, colleges and universities will find it enormously difficult to remain competitive going forward. These processes also need to be effectively integrated at the broader university level since information technology impacts the effectiveness of all other programs offered by the university.

COMPETITIVE INTELLIGENCE IN UNIVERSITIES

The discussion of how competitive intelligence can be utilized in higher education environments remains limited to a great extent by a confluence of factors: lack of resources, lack of a for-profit orientation, fears of academic turf wars, general disagreement about what competitive intelligence really means and the lack of integration of competitive intelligence principles and practices into the university's business environment (Fine, 1987; Giguere, 1999; Wagner, 2003; Horne & Parks, 2004). This conundrum exists despite the increasing pressure from an external environment that threatens practically every element of a university's operational environment.

Yet, even fewer formalized studies examine the use of competitive intelligence in the strategic planning processes in higher education. Indeed, there are few studies that address the utilization of competitive intelligence in the non-profit sector at all (Horne & Parks, 2004). The literature on non-profit and public sector competitive activities reveals five potential reasons why competitive intelligence has not been universally adopted and implemented in not for profit organizations (Hughes and White, 2005). The lack of a profit orientation is the leading reason most public sector organizations have had little motivation to adopt CI techniques (Wagner, 2003). Second, the tendency toward a strategy of cooperation rather than competition has led to limited use of CI tools and techniques (Rados, 1991). Third, a lack of funds has also been suggested as a reason for low adoption levels among non-profits and public sector organizations (Fine 1987). Finally, it has been suggested that limited operational capabilities to adapt traditional higher educational practices to more competitive environments and a philosophical distrust of the CI approach and its benefits have also diminished the use of CI techniques in higher education and other not for profit organizations (Horne & Parks, 2004).

Giguere (1999) argues that if universities want to be successful in the competition for students and outside funding, they must adopt and integrate more competitive intelligence activities

into their strategic and operational decision-making processes. Yet, few universities seem to understand the nature of the competitive environment they are operating in or the need for the application of traditional competitor analysis techniques to ameliorate this competitive threat.

There are only a few studies that have looked at the need to develop a more university-wide assessment process for collecting, analyzing and disseminating information to deal more appropriately and effectively with the increasing threats to their business operations. These studies have primarily focused on only two areas of CI -environmental scanning and benchmarking. And, while few practitioners in the competitive intelligence field view an alignment between environmental scanning and the utilization of competitive intelligence activities, environmental scanning has at times been used as a proxy for competitive intelligence activities by some authors in the field of strategic management (Mohan-Neill,1995; Ahituv et.al., 1998; Kumar, Subramanian & Strandholm, 2001).

Friedel and Rosenberg (1993) identified the need for institutions of higher education to incorporate environmental scanning techniques in their strategic planning and decision-making activities to enhance the quality of the inputs to the process and increase consensus among the organizational decision makers. In a survey of environmental scanning practices in junior, community and technical colleges, the authors found that environmental scanning activities assisted the college in becoming a leading-edge innovator in the areas of programming and technology.

Several authors have also examined the use of benchmarking in the higher educational institutional decision-making processes including student affairs, tuition fees, administration services, information technology (Mosier & Schwarzmueller, 2002; Loomis Hubbell et al., 2002; Bender, 2002; Hagelund, 19999). Benchmarking represents a key competitive intelligence analytical technique which is frequently utilized by for-profit institutions in search of a "best practices" approach. Each of these authors makes the argument that benchmarking an institution against a group of peer institutions can provide a relevant and informed framework for processing decisions in an organization. Finally, Horne and Parks (2004) provided a case study of a university which developed and implemented a competitive intelligence program on campus by involving the efforts of faculty, students and administration. The project was designed to both teach the principles of competitive intelligence processes to students and staff and to implement the utilization of these processes throughout the university's business functions. The program's objectives were to determine the university's current competitive intelligence capabilities and the demographics about its primary clients and their needs. Once this phase of the project was completed, additional information on the responsiveness of the university to their client's through current program and service offerings was collected. The authors underscore the importance of complementing the strategic planning process with a competitive intelligence program that can assist decision makers in collecting, analyzing and disseminating the information required as inputs to the planning process.

COMPETITIVE THREATS IN UNIVERSITY ENVIRONMENTS

Universities face considerable threats to their operational environments including pending legislative actions, increasing costs, new entrants, scandals involving high profile athletic department representatives, and employee misrepresentation among others. These threats represent a sample subset of threats universities encounter in their environments and should not be considered the full profile of possible threats. The specific nature of these examples is discussed below.

Legislative and Regulatory Actions

In 1999, the United States Congress passed the Gramm-Leach Bliley Act, also known as the Financial Services Modernization Act, which required US-based institutions that handle financial transactions to protect customers' private information from being exposed through computer malfunctions. The law was written with financial institutions in mind, but many colleges and universities were surprised to find they are also required to comply with the principles of the act. The deadline for demonstrating compliance passed in May, 2003. Universities that do not comply may be potentially vulnerable to negligence suits in the future if non-compliance leads to the theft of personal information maintained on the universities servers. Universities that seek compliance under this law are mandated to demonstrate that their computer security practices include a comprehensive risk management process which assesses security risks, both internal and external, on a regular basis and a plan for how the organization will maintain security of their computer environments over the long term. Each of these requirements suggests the implementation of an onerous level of compliance activities to mitigate the future threat of litigation.

In 2002, the United States Congress passed the Sarbannes-Oxley Act. The law applies only to publicly traded organizations in the United States but many higher education experts have called for a voluntary adoption of the law's enhanced standards for institutional accountability and responsibility (Granoff, 2004). The law raises the standards of accountability by requiring organizations to establish stricter rules on risk management in their operational environments. Organizations are now required to establish separate audit committees, reinforce board finance skills, and implement a full-scale risk assessment program covering both operational and reputational risk in addition to a host of other required changes. While universities are technically not required to comply with the law, increasing environmental pressures such as reduced funding opportunities and increasing costs, increase the level of scrutiny of a university's operations and by extension, mandate increased accountability. For many universities, the financial and administrative implications of this legislation are only beginning to reveal themselves. In many cases, universities find themselves swirling in a sea of questions about the degree of compliance expected, the level of risk exposure, the level of risk coverage and the assessment of best practices for the industry.

In both instances, universities no longer have the luxury of ignorance as a defense for non-compliance. The implementation of a methodical regulatory and legislative analysis would assist universities in understanding the full range of implications of pending legislation and provide them ample time to mobilize lobbying forces to work on behalf of universities to craft legislation which addresses the needs and concerns of universities in a more prominent manner. In addition, maintaining a legislative review process will allow universities ample lead time to ensure compliance under new laws so that institutions are not left at the last minute trying to address a situation under the threat of penalty or potential litigation.

Increasing Costs

Most universities and colleges are completely dependent on tuition and student service fee income to finance the bulk of their operating budgets (Loomis Hubbell et al., 2002). Declining state and federal contributions to the educational institutions have caused institutions to place an increasing emphasis on achieving higher levels of efficiency and effectiveness with their existing resources. In essence, they have been asked to do more with less and in some cases, significantly less. Implicit in this evolving mandate is the need to demonstrate improvement in key areas leading to higher levels of effectiveness and efficiency.

Universities have struggled with the issue of providing a range of student and organizational services in more efficient ways. Some of the areas targeted by universities for cost cutting include technology services, campus bookstores, cafeteria services, library services, custodial services, mental and medical health services and physical fitness facilities (Olsen, 2003; Rivard, 2003; Kennedy, 2002). Benchmarking one's service offerings is one way of assessing the level of efficiency achieved by the university providing these services. This process first evaluates the internal processes of the university and then compares these processes against peer groups or comparable groups in other industries. Benchmarking, which reveals negative results for the university, ultimately leads to the assessment of whether an organization should continue to provide the service internally or outsource the function to a more specialized service provider.

New Entrants

The emerging online learning marketplace represents a growing threat to traditional universities as both existing and emerging competitors go after all types of students with an increasing variety of online course offerings. The online educational marketplace lowers the barrier to entry for competitors in this industry and increases the competition for both new and existing students. Students residing in Europe can now take courses offered at The University of Maryland in the United States, without ever leaving their homes. Traditional bricks and mortar institutions no longer have the luxury of protected local markets and this factor increases the risk to all

institutions as various sources of state and federal funding become more limited. The United States (US) Department of Education estimates that 3.1 million students were enrolled in distance education course during the 2001 academic year (US Department of Education, 2003). According to this study, in 2001, 56% of all 2-year and 4-year institutions offered distance education course. Twelve percent of respondents indicated that they planned to offer distance education courses in the next three years. Currently approximately 31% of higher education institutions do not offer any type of distance learning opportunities.

The potential windfall to institutions that do offer these courses is enormous. According to EduVentures, a Boston, Massachusetts-based Educational Consulting group, by 2005, an estimated $4 billion market awaits participants in the online educational marketplace. By 2006, an estimated 6 million students will be enrolled in distance education courses at the collegiate level (Conhaim, 2003). The biggest adopters of online education offerings are corporations and it is anticipated that this group alone will spend $18 billion on distance learning courses by 2005 (Conheim, 2003). Traditional 2 and 4-year institutions cannot afford to be left out of this emerging opportunity. However, many institutions have not been aggressive enough in implementing these courses due to a variety of factors. According to a US Department of Education study on distance learning, institutions that did not offer these courses indicated several reasons for not offering these courses including: lack of institutional fit, program development costs, limited technological infrastructure and a lack of perceived need (US Department of Education, 2003).

In today's environment, the threat of new online-only, for-profit entrants into the marketplace places traditional educational institutions under enormous pressure to compete under a set of changed cost structures which clearly lean in favor of the new entrants. The online equation provides value when you consider the cost of providing meeting spaces and the attendant facility management operations to maintain these meeting spaces. Online-only institutions do not have those same cost considerations and can provide course offerings that are significantly below standard tuition rates and can also accommodate the student's need for increased scheduling flexibility. Finally, according to a study by the Sloan Consortium, a network of institutions that study online learning, 57% of leaders in academia believe that online learning is at least as effective as courses offered in traditional classroom settings (Garmoe, 2003). These facts seem to be supported by figures recently released by the University of Phoenix, the online leader in distance learning, who recently reported a 47% increase in earnings from a year earlier and a jump of approximately 60% in new online registrations from previous year's figures. Given this emerging threat, traditional bricks and mortar institutions need to at least be evaluating the viability of online offerings for their own environment by benchmarking their institution's demographics, course and degree offerings and infrastructure needs against their existing peer group and those considered "best in practices" among all types of institutions competing in the online marketplace.

Athletic Scandals

Athletic scandals have become the single biggest public relations management effort in higher educational institutions. Seemingly, not a single day goes by without some new revelation involving malfeasance by coaches, student-athletes and athletic administrators. Allegations involving rape, murder, drug production and distribution, DUI, counterfeiting, and various other felony and misdemeanor charges seem the rule rather than the exception in today's university sports environments.

The long-term impact of these infractions on universities is anticipated to be significant. Intercollegiate athletics helps universities create a brand image and there is clear anecdotal evidence linking brand image and an institution's prosperity (Pulley, 2003). One clear example of this link involves Baylor University in Texas. In July 2003, Baylor University basketball player, Patrick Dennehy, was found murdered. Police later charged his teammate Carlton Dotson with his murder. In the ensuing investigation, Baylor coaches engaged in a cover-up as allegations of additional program improprieties came to light. In the end, the university and the coaching staff may face civil lawsuits and the school faces the threat of sanctions from the National Collegiate Athletic Association's (NCAA) governing body, including probation and the attendant loss of reputation and financial rewards from participating in one of the best athletic conferences in the United States. Ultimately, Baylor's biggest loss may come in the form of reduced endowment contributions during the school's biggest fund raising effort in their long storied history (Alfano, 2003).

The death of Len Bias from a cocaine overdose in June 1986 represents another example of this link. His death, and the resulting negative publicity it generated, caused enormous reputation problems for the university and ultimately adversely affected the institutional image of the University of Maryland for years afterwards (Pulley, 2003). Although there are currently no studies addressing the actual cost to a university of an athletic scandal, athletics creates enormous upside value for a university by burnishing an institution's name and image and by attracting a large number of people to the campus (Lombardi et al., 2003). The broad appeal of a school's athletic success suggests that universities should experience increased fund raising opportunities, increased student applicants, a larger pool of quality applicants to the university and an overall increased community commitment to the university's organizational mission. Given the significance of the threat posed by the loss of this value from athletic scandals, institutions should consider the adoption of techniques that can help mitigate the potential negative impact these threats may engender.

Employee Misrepresentation

Employee misrepresentation is becoming an increasingly greater concern to universities as stories emerge of the misrepresentation of employees' backgrounds which threatens to undermine the university's public image. Much of this concern in recent years stems from the terrorist events

on September 11, 2001. Indeed in one high profile event, the University of South Florida learned of terrorism charges brought by the Federal Government against Dr. Sami Al-Arian, associate professor of computer science and engineering in late fall, 2001 that placed the university under enormous public scrutiny. Ultimately, a United States federal grand jury brought charges against Al-Arian and others for engaging in criminal activities that supported international terrorism and the university eventually dismissed him from his position at the university (Van Alstyne et al., 2003).

According to the American Association of University Professors (AAUP), a professional organization of university and college professors, despite the concerns surrounding terrorism, there have been few reports of employee misrepresentation related to national security issues (Finklin et al, 2004). There have been however, other cases of employee misrepresentation on campus that seem to warrant increased calls for deeper background checks when universities hire employees for their staff and faculty positions. In the summer of 2003, Penn State University officials were shocked to learn that Paul Eric Krueger, an Associate Professor and Director of Penn State's Institute for Research in Training and Development, was on parole for a 1965 triple murder in Texas (Post-Gazette, 2004). The AAUP calls for a principle of proportionality to be followed in conducting background checks, expressly limiting criminal background checks to those faculty being hired to oversee classified documents or positions requiring the employee to be bonded.

COMPETITOR INTELLGENCE ANALYTICAL TECHNIQUES

The previous section highlighted the potential threats universities face in their operational environments. Table 1 illustrates specific examples of techniques universities might adopt to help mitigate the risk these threats pose to the organization's operational environment.

Table 1: Framework for Competitive Intelligence Utilization in University Environments

		Competitor Intelligence Techniques					
		Benchmarking	Background Checks	Won-Loss Analysis	Competitor Assessment	War Gaming	Network Analysis
	Pending Legislation	♦			♦	♦	
	Increasing Costs	♦		♦	♦		♦
Functional Activities	Athletic Scandals	♦	♦		♦		
	Employee Misrepresentation		♦			♦	
	New Entrants	♦			♦	♦	♦

Benchmarking

The purpose behind benchmarking is to identify areas where improvements to operational performance can be obtained (Bisp et.al, 1998). Typically, this technique assesses a company's internal practices against industry "best practices" on any of many standard organizational practices. Once "benchmarks" are determined, a company can then compare their performance against the industry standards. Benchmarking may assist a university in assessing how competitors are managing certain operational elements which result in lower costs (through outsourcing) or improved operational efficiencies (through adoption of process-oriented innovations).

Background Checks

"Background checks represent standard law enforcement techniques utilizing electronic searching of various public record databases for records of impropriety involving individuals. These checks involve evaluating bankruptcies, lien claims and credit checks of the employee applicant. Criminal background checks can involve either manual courthouse record checks or electronic searches of both criminal databases and sexual offender databases (Hughes and White, 2005)." Background checks have been used extensively to minimize the possibility of hiring individuals with suspect backgrounds and placing them in positions of high responsibility. Background checks can assist a university in minimizing the likelihood of hiring an individual whose past personal activities might cause the university enormous public relations issues in the future.

Competitor Assessment

Competitor assessment techniques involve analyzing and evaluating the operational activities of direct and emerging competitors. These processes often form the basis for launching benchmarking studies on the entire industry. Marketing, operations, intellectual property, research and development, finance, information technology and top management team profiling may be examined. Universities could employ competitor analysis to assess a wide range of new processes, services or technologies adopted by both direct and indirect competitors. Competitor analysis could also be used to assess how universities are handling pending legislation, cost reduction decisions, outsourcing opportunities, and management of athletic improprieties.

Won-Loss Analysis

Often thought of as an excellent customer service activity, a won/loss analysis involves contacting clients after a sales activity to determine the level of customer satisfaction with the purchase and to identify customer opinions on the company and any other competitors the customer

considered (Naylor, 2002). "This technique provides invaluable actionable intelligence for organizations to utilize in improving their selling function by incorporating value as defined by the customer" (Hughes and White, 2005) Won-loss analysis can assist a university in increasing student retention rates, identify more efficient fund raising techniques and increase the effectiveness of the grant application process.

War Gaming

War gaming is a CI technique that is used to help an organization respond to a crisis or any other surprise event. War gaming attempts to predict future alternatives and respond to unexpected events Tools such as scenario building, contingency planning and simulations are used to create scenarios with probability indices to help the organization better plan for future turbulent events (Underwood, 1998). War gaming can assist a university in assessing the potential threat of changing legislation, athletic scandals on the university's image and the threat of new entrants on the entire university's operational environment.

Network Analysis

Strategic alliances have been shown to help firms develop a broader knowledge base to keep abreast of cutting edge technologies (Bierly & Chakrabarti, 1996), reduce development costs, lessen the inherent risks of product introduction and help firms cope with problems faced at different stages of industry evolution (Kotabe & Swan, 1995; Roberts & Berry, 1985).Network analysis involves examining the value of an organization's strategic alliances and determining how the network can more effectively leverage the capabilities of a broad number of competitors to create value. This process examines a number of important factors including number of alliances, strength of alliance ties, existence of alliance groups, mix of alliance partners, location of company in industry and the existence and quality of management capabilities (de Man, 2004). In the case of universities, network analysis can help a university judge the value of pursuing alliances for cost reduction and innovation enhancement purposes and to assist in identifying the appropriate alliance candidates.

CONCLUSION

This paper provides a few examples of how CI tools and techniques may be useful in strategic planning processes in universities; however CI is not limited to the operational areas discussed here. These techniques can be valuable across a broad range of operational areas within the university. Additional areas where CI tools and techniques may prove valuable include the recruitment of faculty, staff, board members and prospective students

Universities can no longer avoid the fact that they operate in an increasingly competitive marketplace. As the potential impact of environmental threats increase, universities will need to take advantage of the full range of information gathering and processing techniques available in order to remain viable to their constituencies. The opportunity to utilize long-standing competitive intelligence techniques to assist them in evaluating and mitigating the implications of these threats is available to forward-thinking higher education administrators and leaders. In today's ultra-competitive environments, institutional stakeholders demand more of their organizational leaders and the techniques offered in this paper represent legitimate threat-mitigating strategies that should included in the strategic planning processes of leaders in higher education.

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REFERENCES

Ahituv, N., J. Zif, & I. Machlin. (1998). Environmental scanning and information systems in relation to success in introducing new products. *Information and Management,* 33, 201-211.

Alfano, P. (2003). Baylor president faces prospect of lost dream. *Star Telegram*, July 30th.

Bender, B.E. (2002). Benchmarking as an administrative tool for institutional leaders. *New Directions for Higher Education*, 118. Summer. 113-120.

Bierly, P. & A. Chakrabarti. (1996). Generic knowledge strategies in the U.S. pharmaceutical industry, *Strategic Management Journal,* 17, 123-135.

Bisp, S., E. Sorensen, & H. Grunert. (1998). Using key success factor concept in competitor intelligence and benchmarking. *Competitive Intelligence Review,* Vol. 9(3).

Blenkhorn, D. & C. Fleisher. (2003). Teaching CI to Three Diverse Groups: Undergraduates, MBAs and Executives. *Competitive Intelligence Magazine*, July-August, 17-20.

Conheim, W. (2003). Education ain't what it used to be. *Information Today*, 37-38, December.

Crebert, G. (2000). Links between the purpose and outcomes of planning perceptions of heads of school at Griffith University. *Journal of Higher Education Policy and Management*, 22(1). 73-84.

De Man, Ard-Pieter. (2004). The *Network Economy: Strategy; Structure & Management.* Hampshire, United Kingdom: Edward Elgar Publishing.

Duke, C. (2001). Networks and managerialism: Field-testing competing paradigms. *Journal of Higher Education Policy and Management*, 23(1). 103-119.

Fine, S.H. (1987). Social and non-profit marketing: Some trends and issues, in *Advances in Nonprofit Marketing*, Vol. 2. ed. R.W. Belk. Greenwich, CT: JAI Press.

Finklin, M., R. Post & J. Thomson. (2004). Verification and Trust: Background Investigations preceding faculty appointments. *American Association of University Professors.*

Friedel, J.N. & D. Rosenberg. (1993). Environmental scanning practices in junior, technical and community colleges. *Community College Review*, 20 (5), 16-22.

Garmoe, P. (2003). New acceptance of online learning. *Chicago Daily Herald*, March 20.

Giguere, D. (1999). Enrollment management, meet competitive intelligence. *New England Board of Higher Education*, Summer.

Gilad, B. (2003). CI education Harvard style. *Competitive Intelligence Magazine*, 6 (4),. 12-16.

Granoff, M. (2004). Sitting out the scandals. *New York Times,* April 5.

Gubeno, J. J. (2003). A guide to building an effective CI program from the ground up. *Competitive Intelligence Magazine*, . 6 (4), 41-44.

Hagelund, B. (1999). Benchmarking in university administration-A case study from the University of Copenhagen. *Perspectives*, Vol. 3 (2), Summer.

Horne, M. & T. Parks. (2004). Implementing competitive intelligence in a non-profit environment. *Competitive Intelligence,* Vol. 7, No. 1.

Hughes, S.& R.J. White (2005), Improving Strategic Planning and Implementation in Universities Through Competitive Intelligence Tools: A Means to Gaining Relevance, Northern Kentucky University Working Paper, Highland Heights, KY.

Kennedy, M. (2002). Tough choices. *American School & University*, May, 66b-66f.

Kotabe, M. & K. Swan. (1995). The role of strategic alliances in high-technology new product development, *Strategic Management Journal*, 16, 621-636.

Kumar, K., R. Subramanian, & K. Strandholm. (2001). Competitive strategy, environmental scanning and performance: A context specific analysis of their relationship. *IJCM*, 11, 1-33.

Lerner, A.L. (1999). *A strategic planning primer for higher education*. Retrieved July, 2004 from http://www.des.calstate.edu/strategic.html. College of Business Administration and Economics, California State University, Northridge. July 1999.

Lombardi, J., E. Capaldi, K. Reeves, D. Craig, D. Gater, & D. Rivers. (2003). The sports imperative in America's universities. *Annual Report: The Lombardi Program on Measuring University Performance.* November.

Loomis Hubbell. L.W., R. J. Massa & L. Lapovsky. (2002). Using benchmarking to influence tuition and fee decisions. *New Directions for Higher Education*, 118. Summer. 39-63.

McCredie, J.W. (2000). Planning for IT in higher education: It's not an oxymoron. *Educause Quarterly,* No. 4. 14-21.

Miller, J. (2003). Educate Yourself: A Comprehensive Curriculum *Competitive Intelligence Magazine*, July-August, 27-30.

Mohan-Neil, S. I. (1995). The influence of firm's age and size on its environmental scanning activities. *Journal of Small Business Management*, October, 10-21.

Mosier, R.E. & G. J. Schwarzmueller. (2002). Benchmarking in student affairs. *New Directions for Higher Education*, 118. Summer. 103-112.

Naylor, E. (2002). Increasing sales through win/loss analysis. *Competitive Intelligence Magazine*, Vol. 5, No.5.

Olsen, F. (2003). Outsourcing the technology boss. *Chronicle of Higher Education*, 50(9).

Pulley, J.L., Romancing the brand. *Chronicle of Higher Education*, 50(9).

Rados, D.L. (1991). *Marketing for Non-profit Organizations.* Boston: Auburn House.

Rindfleish, J. (2003). Segment profiling: Reducing strategic risk in higher education management. *Journal of Higher Education Policy & Management*, 25 (2), 147-159.

Rivard, N. (2003). *Clean sweep.* Retrieved July, 2004 from http://www.universitybusiness.com July, 46-50.

Roberts, E. B., & C. A. Berry. (1985). Entering new businesses: Selecting strategies for success, *Sloan Management Review*, 26,. 57-71.

Rowley, D.J., H. D. Lujan & M. G. Dolence. (1997). *Strategic change in colleges and universities.* San Francisco, CA: Jossey-Bass Publishers.

SCIP (2001). Retreived July, 2004 from http://www.scip.org/ci/faq.asp

SCIP (2004). Retrieved July, 2004 from http://www.scip.org/ci/

SCIP (2004). Retreived July, 2004 from http://www.scip.org/education/ciuniversity.asp

Shelfer, K.M. (2003). CI education that advances the CI practice. *Competitive Intelligence Magazine*, . 6 (4), 31-36.

Stevens-Smith, C. & G. R. Ferris. (1990). Human resources strategy and planning in higher education. *Human Resource Planning*, . 13 (1). 13-25.

Underwood, J. (1998). Perspectives on war gaming. *Competitive Intelligence Review,* . 9(2).

US Department of Education. (2003). National Center for Education Statistics. *Distance Education at Degree-Granting Postsecondary Institutions:* 2000-2001, NCES 2003-017, by Tiffany Waits and Laurie Lewis. Project Officer: Bernard Greene. Washington, DC.

Van Alstyne, W., S. Leberstein & A. Lesch. (2003). University of South Florida. *American Association of University Professors*.

Wagner, R. B. (2003). Can CI be applied to public-sector organizations? In Craig S. Fleisher and David L. Blenkhorn (Eds.), *Controversies in Competitive Intelligence: The Enduring Issues*, Westport, CT: Praeger.

Zajac, E.J. & M. S. Kraatz. (1993). A diametric forces model of strategic change: Assessing the antecedents and consequences of restructuring in the higher education industry. *Strategic Management Journal,* Special Issue: Summer,. 14 (4), 83-102.

ACKNOWLEDGING THE STUDENT AS THE CUSTOMER: INVITING STUDENT INPUT INTO COURSE WEIGHTS

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ABSTRACT

Businesses recognize the necessity of listening to the customer. Small businesses do not have the resources to provide the on-the-job re-education needed to advance this employee understanding. Although higher education providers allow student evaluation of faculty, they have not made the transition to acknowledging the student as the customer in course weighting. In recognition of the student as customer, and who is also frequently a small business employee, two classes of Sam Houston State University graduate students were requested to evaluate theoretical course weights with respect to course grades and career needs. The analyses of these results leads to the conclusion that courses need to be restructured to more adequately address small business owners' and employees' needs.

INTRODUCTION

From the small business perspective, educators should be producing employees who are better equipped with the skills and knowledge to compete in the demanding, diverse business world they are entering. Educators complain that small businesses are criticizing the process but are not providing the insight and assistance needed by educators to produce the training needed by the employer and employee. Both camps agree that students are entering the workforce without the skill sets needed to compete in the increasingly global economy. Inadequate preparation often translates into lower job satisfaction for the employee and reduced earnings for the businesses.

Larger businesses are creating their own in-house universities or creating joint educational programs with universities to overcome this dilemma. Small businesses do not have the financial or human resources for this aggressively proactive solution.

One component that may have so far been ignored as a part of the solution by both universities and employers is the student. Requesting and evaluating student input may alter the equation for a remedy. A number of students are also business owners. This population can provide a unique insight into the education and training issues as they are personally involved from both sides.

An important question discussed in the halls of academia is Who is the customer? Is it the state, the student or the present/future employer? Students being asked to assess faculty through evaluations are prima facia evidence of students being customers from a marketing definition of customers. Students ARE customers; they have the power to affect teaching styles and content which is the essence of customer power. Expanding the initial question, should the customer have input into the end product? If the customer is the student, then it seems logical the customer should be consulted as to the content and content weight for the course.

Another approach to the student participation in course content was put forward by Emery and Tian (2001). Their concept was to visualize the student as being involved in participatory management of course content. The idea was that this would help prepare the student for the work environment via real world activities of participatory management.

As to a specific course content weight study for academic grade versus career requirements, the literature is rather silent. Under the student as customer concept (or participatory management concept), two graduate classes were requested to evaluate class content weight with a view of the importance to the student for grade determination and career/job enhancement. This paper will review the students' perspective on how course content needs to be weighted to best fit a course grade and the current and future needs of the student for employment.

LITERATURE REVIEW

The requirement for university involvement in small business education has been discussed in the literature for decades. Pearson, et al (1987) and Zeitmal and Rice (1987) found a lack of resources directed toward small business education and research to support expanded small business course requirements. They claimed that although universities understood the need for these courses, there was not much change in the emphasis on traditional large corporate education. Clark, Davis and Harnish (1984) studied the effect of entrepreneurship courses on the creation of small businesses. Their conclusion was that such training did create more jobs and should continue to be funded. Research by Mescon (1984) indicated a training program in South Florida resulted in business growth in revenue for the attendees as well as the hiring of more employees.

Today, small business education is slowly increasing its presence in higher level educational programs. Luchsinger and Luchsinger (2001) provided a survey of small business programs designed to assist students in establishing or operating small businesses. Many programs provide insight into several aspects of business in general, as well as, delve into the important aspects that affect small business. This helps provide a solid background for people that are going into the field of small business. They also stressed the importance of small business groups becoming involved in the development of these programs and internship programs that benefit both business owner and student, i.e., the business owner as the customer. However, Plaschka and Welsch (1990) feel that addressing the needs of small business was still not a major focus for most universities. They

believed that part of the problem lay with the perception of academia that small businesses were ma and pa businesses.

Beresford (1997) believes universities need to go a step further than the traditional education for graduates and undergraduates and develop an executive small business program. He believes small business owners are usually very proficient or skilled in one area of their business but lack skills in the other areas of small business. Bailey (2003) echoes this conviction in a different manner; small business managers cannot be made but only developed. Most small business managers lack the business training and/or education to successfully operate a business. Universities should assume this training role and fill in this education gap.

The student as customer has been discussed in the literature. Kamvounais (1999) reviewed the literature on students as customers. Her research indicated there was difficulty in utilizing customer in describing the relationship between students and universities. Snipes, et el, (1997) wrote that it seemed logical to consider students as customers since they receive educational services from universities. Emery and Titan (2001) studied whether students wished to take a more active role in weighting course assessments. Their results indicated that students did wish to participate in the course assessment design. The premise of Emery and Tian was the student was involved in participatory style of management. As such, there may be a fine line between the student as customer and student as participating in a management situation.

EDUCATION

The need for education as related to jobs for the student is well documented. A problem for American based manufacturers is the difficulty in finding employees with an adequate level of education for the required jobs (Klingberg, 2004). Thus, the United States competitive disadvantage is not a result of automation nor job exportation, but employees who are illiterate in science and math. It is probable that business students are also illiterate in math as applied to business applications. Klingberg's argument would seem to be a counter argument to allowing the student to be the customer. As related to jobs within the business area, small and medium sized firms (SMEs) offer a promising future by allowing the employees to advance with the company's growth (Ahmadi and Helms, 1997). However, SMEs do not usually offer the benefits of their larger competitors and there is an assumption that highly educated young people are more likely to be recruited by a large company (Dupray, 2001). Typically, after being employed by a large firm, these employees earn a higher salary than the employees from small firms.

Formal business education courses would enhance the capability of small business especially because of the increasing trend of graduates entering into small businesses rather than the large established firms. Specifically, incorporating small business marketing case studies into the formal education of business can be mutually beneficial to both students and small businesses by enabling the business to compete more effectively (Freeman, 2000). This approach would apply across all

business disciplines. Several studies have reviewed the evolution of educational programs that cater to small businesses. There are many new courses that have been introduced at the college level in entrepreneurship, small business ventures and the creation of a new firm (Luchsinger and Luchsinger, 2001). These authors believed that small business education is one of the few educational business areas where all the disciplines of business carry the same weight. Small business education has evolved into a more sophisticated program from the previous focus on solely traditional business activities. This is caused by the increase in education and risk taking in the small business arena. An experimental approach to small business education paired with educational materials (such as booklets and pamphlets) should increase the effectiveness of small business education. It can be concluded that formats of small business education will become more detailed, complicated and intricate. With the new small business educational classes that focus on the disciplines, small business owners will become more capable to deal with occupational health and safety, new regulatory laws and general areas to increase profitability. The recent direction of small business education should spread to credit and non-credit courses at colleges, small business institutes, and internship programs.

Three studies compared the small business education trend in Europe. Meldrum and de Berranger (1999) addressed the rise of small business in the United Kingdom and their belief that there was insufficient higher education for small and medium sized enterprises. Higher education institutions have expanded the curriculum, but are reluctant to take a stronger initiative on the matter. Because of the significance of small and medium size enterprises in the UK, the government has stepped in to provide incentives. This government effort to develop the program of study was greeted with skepticism by the educators. The authors concluded it can be difficult to reform small business education in higher education institutes like universities and colleges. Dana (1992) reviewed programs both in the United States and Europe comparing the differences. Primarily, the strongest European programs are very practical in their pursuit of entrepreneurial education, and it has spread more rapidly to rural areas than it has in the United States. However, in the United States, there are more doctoral programs and more various course offerings focused on entrepreneurial education. The number of educational programs that focus on entrepreneurship in Europe are increasing in number, but not as quickly as it has in the United States.

Entrepreneurial education in Europe is focused on small to medium size businesses, and developing leaders that know how to function in a small business environment from everything from window displays negotiating orders; but the education lacks corporate and venture capital focus. Dana concluded that perhaps the time had come for European schools to also offer higher education in entrepreneurship. Finally, Penn, Ang'wa, Forster, Heydon, and Richardson (1998) discussed the process of learning in small business organizations and the process by which employees learn by looked at five key characteristics of small organizations in England: adaptability, planning, information and knowledge, human resources, development, and growth. They concluded that the educational needs of small business must be specifically geared to small business organizations and

include factors that are necessary to the success of these organizations and that small business owners believe that some characteristics of employees are important and these characteristics should be incorporated into small business education.

The literature has discussed the problems of getting academia to accept small business courses and programs into the basic curriculum of universities. The rate of small business education attendance was found to be low after a significant rise in its availability of small business education programs at universities and colleges (Sargeant, 1996). The study concluded that educators do not fully perceive the small business market and project a negative image of small businesses. This could be remedied by small business training and interaction between the education institutions and small business affiliates. Although there has been an increase in literature addressing entrepreneurship in the last few years it is still not a major focus of most universities Plaschka and Welsch (1990). Universities are evolving courses on a trial and error or as needed basis. Some of problems are academic attitudes that the entrepreneur is a small, ma and pa business that is poorly run, and that academia would not receive adequate funding for true research or that academia would be looked down upon for studies of small business (Laukkanen, 2000). Another problem may be the definition differences between entrepreneurship and small business that many individuals and academics use interchangeably (Sexton and Bowman, 2001). Some academics do not consider small business to be true entrepreneurship curriculum and define that as quasi-entrepreneurs. The literature also expresses the concept that an entrepreneur cannot be created and entrepreneurship can be taught, but it is not necessarily learned (Hendricks and Newton, 2003). Training will help those inclined to entrepreneurship be better managers and business people but will not create these types of individuals. The basic problems with creating entrepreneurial courses as opposed to small business courses are: inconsistent definitions, a lack of clarity or consistency in course content, the use of disinterested and/or untrained faculty, and the absence of an adequate vehicle or forum for research related to curriculum development and course content. Additionally, entrepreneurial students tend to be less anxious and more non-conformists than traditional business students.

The state of entrepreneurial education has been discussed in the literature. The perception of people that start their own businesses is changing as well as the perception that business owners are as less educated than the general public as recent research has shown that small business entrepreneurs are more educated than the general public. The impact of entrepreneurial education separate from general education and whether or not that participation in that program influences one's desire to open a business of their own someday was studied (Peterman and Kennedy, 2003). Participants in the study had a greater desire to open their own business, but this desire was directly related to their experiences before and during the program. There has been a rise in entrepreneurial education over the last ten years (Finkle and Deeds, 2001). Students and alumni have been supportive of these classes and in many cases have been responsible for its growth and success which is perhaps one simple reason to have student input into class weights for grading. Again, academia may be the biggest opponent to increasing entrepreneur education because many

professors are skeptical about the validity of entrepreneurship as an academic field. There does not seem to be much movement to add entrepreneurship to the curriculum of the AACSB, and it remains primarily an elective at most schools. A different education approach, with perhaps student input, is necessary in order to effectively teach entrepreneurship, and it is very unlikely that the new methodology will be developed by business schools (Gibb, 2002). An entrepreneurial education system is most often found in Europe as a result of increased pressure due to globalization. There needs to be a shift from the way entrepreneurship is currently being taught to one where it is integrated into all areas of teaching.

Whether or not academia is educating small business managers or entrepreneurs, small business and entrepreneurs need executive education (Beresford, 1997). Most entrepreneurs are skilled in one area of business, but are lacking in many of the others. Executive education provides the entrepreneurs the complete business picture and helps the entrepreneur decide what is important for them as the owner of a small business.

TRAINING AND EDUCATION

Throughout the literature there appears to be an interchangeability between education and training. Is there an area of debate here? Is the business curriculum a training program or is it an education program? Some academics outside the business area may consider business to be a training curriculum as opposed to an education curriculum, for example, the social sciences. This section reviews literature more focused on training, although the literature might have meant to be related to education.

The literature has examined whether entrepreneurship training was actually effective in creating small business (Clark, Davis and Harnish, 1984). Prior studies and research examined the business owner and how the training affected his business. This study examined a business entrepreneurship program and whether students already owned a small business or if the students planned on starting a business. Of those thinking of opening a new business, 10-14.5 percent eventually opened a new business because of the training. Again, the question can be posed as to whether this was training or education. Other literature studied training programs developed for aspiring small business owners and the training effectiveness (Henry, Hill and Leitch, 2004). Most small business owners started businesses from ideas and training from counterparts or other small business owners. Henry, et al, concluded that training needs to be developed and studied for aspiring business owners so that the failure rate will decrease and in turn small business turnover will decrease. If the presumption that entrepreneurs cannot be made but only developed, then entrepreneurship training at universities should be more than just providing education (Bailey, 2003). University entrepreneurship programs may also help someone that thinks he is an entrepreneur realize that he does not have the elements needed to be a successful entrepreneur. Formal education and training for small business owners can be one predictor for business success

(Muske and Stanford, 2000). As to some of the issues related to entrepreneurship education and training, there is a lack of thorough programs available (Garavan and O'Cinneide, 1994). Of the courses found available, many were only short courses, or one or two classes in an educational career instead of a dedicated, focused program. Additionally, for effective instruction, the instructor must be well-versed in multiple areas and be able to do more than just lecture, but facilitate learning through simulations and exercises.

The literature considers that small and small family-owned businesses need human resource development and training and that a training system for most small businesses is lacking (Matlay, 2002). Non-family small business and family-owned businesses differ; the family business is unique because the owners and the successors are generally related and succession issues are a very important concern for the managers of the organization. Training is more likely to be embraced because the business will eventually be passed on to the trainee (relative) and management is more likely to be actively involved in the education of the successors.

The literature has also included studies of employee training for small business. Small business owners (entrepreneurs) need to invest in ongoing employee training if they want the business to grow (Buss, 2004). The entrepreneur or small business owner can nurture the business to some point, but they frequently stop there because of either lack trust or lack of adequate skills of employees. Training programs are available today from third parties and universities. Many small business owners are often disinclined to go to training because they assume they already know what it takes to run their business. Small to medium enterprises (SME) can be more competitive if they employ some type of training program, perhaps even as students in school (Folguera and Trullen, 2000).

Research has shown that competitiveness and training go hand in hand. Businesses that train and trust their employees often do better and the employees are more innovative. This may seems counter intuitive to the SME owner because of the extra costs associated with the training and education process, but when training programs are in place, the employees seem to learn better from each other as well. However, the opportunity costs for training may be too high for small business (De Kok, 2002). Larger businesses are able to spend the time needed for training that is needed to transcend the opportunity costs of training. Small firm management may not be competent to evaluate training effectiveness (Patton, Hannon and Marlow, 2000). It has been assumed that most small firm management is unable to choose effective training for their organization because they lack the requisite experience and training themselves. Training can be effective only if the needs of the small business are met and the recipients of the training develop the ability to make the training increase performance.

The literature indicates academia is not completely meeting the needs of small and medium size businesses for both the owner and employees. The students at Sam Houston State University are typically employed by small and medium size businesses. Thus in the vein of the student as

customer and a small business employee, two classes of graduate students were requested to evaluate course weights with respect to grades and career needs.

METHODOLOGY AND RANKING OF EVALUATION

The graduate students in two Fall 2004 finance classes were requested to evaluate a theoretical course content and rank this content package according to grade composition and present and future employment enhancement. The course content included: Tests, homework, projects, research, class discussion, and group work. The two primary evaluation areas were course content for grades and course content for current and future employment. The results of the primary evaluation areas and additional student demographic information are shown below with student evaluation comments.

Table 1: Ranking Class Components for Course Grade

1	2	3	4	5	6
Projects	Research	Exams	Homework	Class Discussion	Group Work

Most students felt that semester projects were the most important component for determining course grade. One would expect this would translate into what would also be most important for current/future jobs. Group work was listed last and that is unsurprising. Most people greatly dislike working in groups because members of the group frequently shirk responsibilities, and the other group members do not feel empowered to influence the outcome.

Table 2: Ranking Class Components for Present Employment

1	2	3	4	5	6	7
Projects	Research & Presentations	Class Discussion	Written Research	Group Work	Exam	Homework
Ranking Class Components for Future Employment						
Projects	Research & Presentations	Class Discussion	Group Work	Written Research	Exam	Homework

* The number of students surveyed in Present Employment did not equal the number of students in Future Employment as some students are not currently working.

When reviewing these results, projects again were ranked as the most important course requirement. Research and presentations were ranked second for job enhancement. Written research ranked fourth which is at variance to what academia believes to be an essential employment criteria. Group work moved up in rank from the bottom perhaps because employees understand the

need for this activity in the real world. Interestingly, exams and homework dropped to last places, another variance to what academia believes is an important career criteria. This seems to indicate that hands-on, real world simulated course work (e.g., projects) was felt to be more important than short answer and MC/TF, maybe soon-forgotten, exams.

EVALUATION OF ANALYSIS

Several comments from students suggested that tests were used for evaluation rather than a learning tool. Other comments indicated that good memories or good luck could result in as good grade as understanding the material and that tests do not teach much. Exams were third in the course grade perhaps because students believe this is a course requirement in education and not necessarily a real job requirement.

The positive comments indicated that tests showed how well students understood the material and measured the impact of homework, text and lectures. Perhaps one of the most insightful comments was that this was the same format used for professional accreditation (e.g., CPA, Bar, etc.) so stay with this format in class.

There was an interesting differentiation between the two types of research. Written research was not considered as important as presentation research. However, research in general, and specifically projects, was considered positive. For basic research, students considered it positive to gather material and present an idea and believed that it increased knowledge in a specific area. From a practical viewpoint, one student indicated the ability to produce timely and accurate information was relevant to the decision making process. From a negative prospective, students felt that research for the sake of research was not acceptable.

Project work was overwhelmingly positive. Student comments included that it focuses intensity and attention to detail and a true test of learning. It also allowed the students' flexibility in learning as there was more than one way to complete the assignment. Projects demonstrate a level of knowledge by applying course material to a topic while expanding knowledge beyond the book. One student suggested there was no better way to grade students that are being educated for the real world. There were no significant negative comments about projects. This could lead to a conclusion that the students actually considered this the best method of teaching and reinforcing course material.

Overall, class discussion was considered favorable. It was considered a strong part of the work world and students needed to learn to express an opinion as many jobs required this trait. As related to the education process: participation was required to truly learn; engagement brings out different viewpoints; participation helps ensure class preparation; audible learners are assisted; and stimulating academically. The negative aspects expressed were it is subjective to grade and discussions tend to be boring, especially if certain factions control the floor or the discussion drifts off subject. The importance to the real world was borne out by the student comments; however, they

did not wish to have this course requirement given much, if any, weight. They may not perceive that academia will fairly grade this area.

This area was about equally positive as negative. From the positive aspect, students noted that group work was an integral part of the workplace so education should help develop this skill. Group work also helped promote different resolutions to a problem. The negative aspects suggested this was not a good gauge of what students were learning and may not accurately measure performance. The biggest negative was concerning the members who tended to be less participatory or as one student wrote dead beats get a free ride. Again, the students indicated the importance of this criteria for the real world career. The negative comments seemed to indicate that academia would be fair in the grading of this area.

Table 3: Surveyed Student Demographics

Currently Working	Not Working
24	8
Fulltime	PartTime
20	4
Desire to Be in Management	No Desire to Be in Management
30	2

Interestingly, one of the non-management responses came from a student that has owned a small business and currently works as an agent.

CONCLUSION

For the student to obtain the best results from the educational experience, the student, as a customer, should have input into the course weight composition. This merges with the student preparation concept of Emery and Tian (2001) for the real world through participatory management. It would seem that in this paper's student evaluation that, as most evaluators were working, they would have some clear recognition as to career education needs. As most universities treat students as customers in other ways, this student input premise would also seem the most appropriate for course evaluation. In either case, for students who are in the real world environment, student participation in course weights could provide more meaning to their academic experience. However, for students that have no real work experience, it may be more difficult for them to determine what course composition and weights are truly in their best interests as they have no basis for evaluation of real world practices and situations. Additionally, this approach may not be in the best interest of small business as expressed by Klingberg (2004). This also seems to indicate that having students

with no real world experience dictate course content and weights may not be the most prudent action for their future careers. However, in the marketing real world, the common mantra is that the customer is always right.

There still seems to be some disconnection between the academic student and the real world student as indicated in the Course Grade Ranking versus Ranking for Employment and it may seem odd that the degree and career rankings were not the same; one would expect they would be. Perhaps the test in school syndrome is driving the degree grade rankings even if the student does not feel it is as an important item for the career. Perhaps academia has not adequately conveyed the relationship between the course and the real world. On the other hand, perhaps academia has not effectively evaluated what small and medium size business employers are really requesting from their employees and, thus, has not restructured courses accordingly. The literature for small business and entrepreneurship training and education abundantly makes this point. The small sample of SHSU student evaluators, who were also employees in most cases, support the literature. As a final comment, the evaluating population was from only one regional university and two graduate classes, so the evaluation results cannot be assumed to apply to all graduate student populations.

FURTHER STUDY

The evaluation results have been incorporated into future graduate classes for further evaluation. The students in each class have been advised at the beginning of the semester that course weights were based on course evaluations of past students. At some future date, the students will be asked to reevaluate the course weights for course correction as required.

REFERENCES

Ahmadi, Mohammad & Helms, Marilyn (1997). Small Firms, Big Opportunities: The Potential of Careers for Business Graduates in SMEs, *Education + Training*.

Bailey, Jeff. *Can You Teach Someone How to Grow a Business?* Retrieved November 22, 2004 from http://www.collegejournal.com.

Beresford, Lynn (1997, August). Higher Learning: A Crash Course on Executive Education Programs, *Entrepreneur*.

Buss, Dale (2004, February). Beyond Basic Training, *Entrepreneur*.

Clark, Bryan W., Davis, Charles H. & Harnish, Verne C (1984, April). Do Courses in Entrepreneurship Aid in New Venture Creation, *Journal of Small Business Management*.

Dana, Leo Paul (1992, Nov/Dec). Entrepreneurial Education in Europe. *Journal of Education for Business*

De Kok, Jan (2002, March). The Impact of Firm-Provided Training on Production *International Small Business Journal.*

Dupray, Arnaud.(2001). The Signaling Power of Education by Size of Firm and the Long Term Effects on Workers' Careers, *International Journal of Manpower.*

Emery, Charles & Robert Tian (2001). Course Design: Should We Permit Student Participation?, *Academy of Educational Literature Journal*.

Finkle, Todd A. & David Deeds (2001). Trends in the market for entrepreneurship faculty, 1989-1998, *Journal of Business Venturing*.

Folguera, Conxita & Jordi Trullen (March 2000). Small Business Training and Competitiveness: Building Case Studies in Different European Cultural Contexts, *Human Resource Development International*.

Freeman, Sue (2000). Partnerships between small and medium enterprises and universities that add value, *Education + Training*.

Garavan, Thomas N. & Barra O'Cinneide (1994). Entrepreneurship Education and Training Programmes: A Review and Evaluation-Part 2, *Journal of European Industrial Training*.

Gibb, Allan (2002, September). In pursuit of a new 'enterprise' and 'entrepreneurship' paradigm for learning: creative destruction, new values, new ways of doing things an new combinations of knowledge, *International Journal of Management Reviews*.

Hendricks, Mark & Newton, David (2003, April). Can Entrepreneurship Be Taught? *Entrepreneur Magazine*.

Henry, Colette, Hill, Frances M. & Leitch, Claire M (2004, March). The Effectiveness of Training for New Business Creation, *International Small Business Journal.*

Kamvounais, Patty (1999). Students as Customers and Higher Education Industry: A Review of the Literature and the Legal Implications, *Academy of Educational Leadership Journal*.

Klingberg, Jeff (2004, July). Education is the Answer, *Control Engineering*.

Laukkanen, Mauri (2000). Exploring Alternative Approaches in High-level Entrepreneurship Education: Creating Micro-mechanisms for Endogenous Regional Growth, *Entrepreneurship and Regional Development*.

Luchsinger, Louise & Vince Luchsinger (2001). New Trends In Educational Programs Oriented Toward Small Businesses, *Journal of Small Business Management.*

Matlay, Harry (2002). Training and HRD Strategies in Family and Non-family Owned Small Businesses: A Comparative Approach, *Education + Training*.

Meldrum, Mary & Pascale de Berranger (1999). Can Higher Education Match the Information Systems Needs of SMEs? *Journal of European Industrial Training.*

Mescon, Timothy S. (1987, January). The Entrepreneurial Institute: Education and Training for Minority Small Business Owners, *Journal of Small Business Management*.

Muske, Glenn & Nancy Stanforth (2000, December). The Educational Needs of Small Business Owners: A Look into the Future, *Journal of Extension*.

Patton, Dean, Paul Hannon & Sue Marlow (2000, December). The Relationship Between Training and Small Firm Performance; Research Frameworks and Lost Quests, *International Small Business Journal*.

Pearson, Michael A., Ryans, Cynthia C. & Ryans, John K. (1987, July). Educators' View on Small Business Training, *Journal of Small Business Management*.

David Penn, Ang'wa, William, Forster, R,, Hey don, G. & Susan Richardson (1998). Learning in Smaller Organizations, *The Learning Organization*.

Peterman, Nicole E. & Jessica Kennedy (2003, Winter). Enterprise Education: Influencing Students' Perceptions of Entrepreneurship, *Entrepreneurship Theory and Practice*.

Plaschka, Gerhard R. & Harold P. Welsch (1990, Spring). Emerging Structures in Entrepreneurship Education: Circular Designs and Strategies, *Entrepreneurship Theory and Practice*.

Sargeant, Adrian (1996). Training for Growth: How Can Education Providers Assist in the Development of Small Businesses? *Industrial and Commercial Training*.

Sexton, Donald L.& Nancy B. Bowman (1984, April). Entrepreneurship Education: Suggestions for Increasing Effectivenessm, *Journal of Small Business Management*.

Snipes, Robin, Sharon Oswald & Sandra Hortman (1997). Causes and Consequences of Student Satisfaction in Higher Education, *Academy of Educational Literature Journal*.

Zeithaml, Carl P. & George H. Rice, Jr. (1987, January) Entrepreneurship/Small Business Education in American Universities, *Journal of Small Business Management*.

TODAY'S COACHES PREPARE TOMORROW'S MENTORS: SUSTAINING RESULTS OF PROFESSIONAL DEVELOPMENT

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ABSTRACT

School districts use a variety of professional development initiatives, many of them successfully. Unfortunately, teachers often return to their previous ways of teaching soon after the initiatives are over. Consequently, sustaining or growing the results of these initiatives is challenging. This case study examines one Mid-western metropolitan school district's professional development coaching initiative through the eyes of four coaches who described their roles as coaches, the perceived success of the initiative, and their perceptions of what was needed to sustain that success after returning to their classrooms. Data were gathered via survey, documents provided by the district administration, and individual interviews with the coaches. Results indicated that coaches felt there was a need for continued support from various networked resources following the initiative in order to sustain or grow the results.

INTRODUCTION

It is generally agreed that professional development is necessary in today's educational system where fast-paced changes present challenges to teachers who are responsible for maintaining high levels of student achievement. However, it is not agreed on what method is most effective for achieving this goal (Guskey, 1995; Lee, 2001; National Commission on Teaching and America's Future, 2003; Renyi, 1996). Various types of training programs and professional development approaches have been tried and tested throughout the years, many of them with great success. In 2000, The U.S. Department of Education published a report describing effective professional development approaches that have been linked to outstanding student achievement. These approaches included, but were not limited to, group problem solving, advanced degree programs, teacher self-assessment, coaching, and mentoring.

Although there is little agreement on which method of professional development provides the best results, there is an emerging consensus about what qualities it takes to make it effective (Guskey, 1995; Lee, 2001; Little, 1994; U.S. Department of Education, 2000). For example, the National Commission on Teaching and America's Future (2003) stated: "A coordinated system of teacher recruitment, quality teacher preparation, clinical practice, induction, mentorship, and

continuing professional development, with accountability built in at each stage, is essential for ensuring high-quality teaching for all students" (p. 143). Other qualities include creating a learning community with supportive leadership, offering an optimal mix of methods based on the contexts and experiences of teachers, and having the capacity and flexibility to continue over extended periods of time.

Two approaches to professional development that seem to embody these qualities are coaching and mentoring. Coaching and mentoring are terms that often are used interchangeably; however, there are differences between the two. One difference is that, in practice, coaching, although it can last for extended periods, is temporary and often an inherent part of the role and responsibilities of a mentor whose job is long-term (Jones, 2001; Williams, 2001). A subtle yet important difference between coaching and mentoring, described by MacLennan (1995), is that mentoring is a relationship with someone to learn from, whereas coaching is a relationship with someone to learn with. MacLennan also pointed out that someone can unknowingly be a mentor but no one can unknowingly be a coach.

Joyce and Showers (1980) defined professional development coaching as "Hands-on, in-classroom assistance with the transfer of skills and strategies to the classroom" (p. 380). Different types of coaching include peer coaching, cognitive coaching, executive coaching, and team coaching. In this study, cognitive coaching was adopted as the preferred approach to professional development. Garmston (1992) defined cognitive coaching as "a commitment to the development of the mind of the teacher as a central focus of a school's staff development program, and the promotion of a new school culture in which collegiality, risk taking, honest communication, and experimentation are continuing expressions of school renewal" (p.175). Cognitive coaching follows a non-judgmental process that is based on a pre-conference (plan), observation (practice), post-conference (reflect) format. After gaining the trust of the teacher being coached, the coach works in the capacity of a critical friend in helping the teacher to analyze his/her own teaching practice (McLymont & Costa, 1998).

Regardless of the type of coaching used, one recurring concern relates to the ability to achieve long-term effectiveness. According to many educators (Cochran & DeChesere, 1995; Swafford, 1998; Veenman & Dennessen, 2001), coaching needs follow-up support or some other form of professional development to sustain initial results. Carter (2001) noted that coaching is a temporary approach to professional development and is not intended to be a lifelong commitment.

PROJECT BACKGROUND

In 2002, with the assistance of a funding grant from an outside agency, Midwest Metro (a pseudonym) began a 3-year professional development initiative, designed to bring digital age literacies (e.g., basic, technological, visual, and informational; see Table 1 for specific definitions) into the classroom environment, with a specific focus on the development of student self-direction

and higher-order thinking (North Central Regional Education Laboratory, 2001). In order to meet this challenge the district hired and trained 34 digital age literacy leaders and coaches to assist teachers in the understanding and classroom application of digital age literacy strategies. By helping all teachers embed digital age literacies and higher-order thinking strategies within their classroom practices, the administration expected this initiative to yield higher student achievement.

Table 1: 21st Century Skills: Digital Age Literacy

Term	Definition
Basic Literacy	Language proficiency (reading, writing, listening, speaking) using conventional or technology-based media
Technological Literacy	Competence in the use of computers, networks, applications, and other technological devices
Visual Literacy	The ability to decipher, interpret & express ideas using images, icons, charts, graphs, and video
Informational Literacy	The competence to find, evaluate, and make use of information appropriately
Self-Direction	The ability to set goals, plan for achievement, independently manage time and effort, and independently assess the quality of one's learning and any products that result
Higher-order Thinking	Processes of analysis, comparison, inference/interpretation, synthesis and evaluation

Professional coaching is not entirely new to this school district. Technology coaches had been working with teachers in all Midwest Metro schools since 2001 to assist with technology integration efforts. In addition, an IREAD grant had previously sponsored two reading coaches for two of the district's elementary schools. The goal of the newest initiative was to place peer coaches in the schools to work with teachers on the development and use of digital age teaching strategies. The ultimate goal of the initiative was to prepare students to thrive in a knowledge-based, digital world.

With the coaching initiative underway for almost a year, and the coaches having completed one full semester in their new positions, it was time to gauge how the initiative was developing. This would inform administrators about potential changes needed in the implementation and help them prepare to meet sustainability needs following the initiative.

PURPOSE OF THE STUDY

With the definition of coaching still evolving, we began the evaluation of Midwest Metro's coaching initiative with how the coaches defined coaching and what they thought it took to be successful. The overarching question for this study was: "What does it take to be a successful professional development coach?" Under this question, the study explored two particular areas. The first area related to the skills, qualifications, and characteristics that coaches saw as critical to their perceived levels of coaching success. The second area was the coaches' perceptions of what future preparations might be needed to support faculty after the coaches returned to their classrooms. Specific questions that guided data collection and analysis were:

How do coaches define coaching?
What skills, qualifications and characteristics do coaches believe are necessary for success?
What factors do the coaches perceive as being critical for success?
What do the coaches believe will be necessary to sustain or grow the success of the coaching initiative?

By identifying the skills, qualifications, and characteristics coaches perceived as necessary for success, the district might, then, hire teachers with these critical characteristics and utilize them in future professional development initiatives. Also, because of the connection between coaching and mentoring, faculty who have these skills, qualifications, and characteristics should be better prepared to work with new faculty as well as current colleagues, and flexibly adapt to changing educational requirements.

METHODOLOGY

This study used a qualitative case study design to examine the perceptions of four coaches about their school district's latest professional development program. Specifically, survey and interview data were collected to determine participants' perceptions of how successful the initiative had been to that point in time and what participants believed was needed in order to continue and maintain that success. The purpose of this study, as described above, was to examine, in depth, four coaches' definitions of coaching, their perceptions of their success as coaches, and their ideas about what would be needed to sustain the outcomes of the initiative.

ROLE OF RESEARCHERS

Utilizing their partnership with a large Mid-western university, the administrators at Midwest Metro and two university faculty agreed to use the digital age literacy initiative as the research context for a graduate course on issues and methods in educational research. The role of the graduate student researchers was to obtain demographic and relevant background information from the

participants, interview a subset of participating coaches within the school district, analyze data obtained for individual portions of the research, and report their respective findings. The first author of this study was a doctoral student at the time with previous experiences in both corporate training and K-12 curriculum planning. For this study, she specifically focused on the coaches' perceptions of what was needed to sustain the success of the coaching initiative after the coaches returned to their classrooms.

DESCRIPTION AND SELECTION OF SITE AND PARTICIPANTS

Midwest Metro is a large metropolitan school district with18 schools: two kindergartens (considered one school), ten elementary schools (grades 1-5), three middle schools (grades 6-8), an alternative school (grades 6-12), two high schools (grades 9-12), and a career center. There are approximately 1,000 teachers serving a K-12 student population of almost 16,000.

In preparation for the coaching initiative, the administrators, faculty, staff, parents, and students of Midwest Metro, along with community leaders, spent several months planning a framework for the initiative, and discussing staffing requirements and milestones for implementation. The call went out within Midwest Metro for interested teacher applicants to fill 31 positions of digital literacy coach and 3 positions of lead coach, one each for elementary, middle, and high school levels.

Coaches/coach leaders were hired prior to the end of the 2002 academic school year. They began their training during the final few weeks of that semester. Training continued for a period of four weeks during the summer months and the coaches were prepared to start working with teachers when school resumed in the fall. Between April and October 2002, all coaches had received over 190 hours of training in addition to on-going training sessions that continued every Friday throughout the school year.

Participants for this study included four digital age literacy coaches. Three of the four coaches were female. The average age of these coaches was 38; years of teaching experience averaged 11.5. Three of the four coaches had provided or been responsible for leading previous professional development efforts and disseminating information to other teachers. In addition, all of the coaches had either received specialized training related to their content areas, methods, or instructional strategies, or they had received certifications from various training programs. Two of the coaches had received intensive training at a Teacher Leadership Academy over a 2-year period, and one coach had returned to school to earn a licensure endorsement in gifted and talented education. Two coaches had a Masters degree. Three of the four coaches in this study worked in a high school setting. The other coach worked at an elementary school (grades K-5).

DATA COLLECTION

Demographic and baseline information about facilitating change were gathered via an online survey. The survey, which had been adapted from the Change Facilitator's Stages of Concern Questionnaire (Hall, Newlove, George, Rutherford & Hord, 1991), asked coaches to rate their agreement with 35 statements, using an 8-point scale ranging from "irrelevant of me" (1) to "very true of me now" (8). The results indicated specific concerns each coach had regarding the coaching initiative and estimated their levels/types of concerns related to the change process, based on seven stages of change: awareness, informational, personal, management, consequence, collaboration and refocusing. In addition, the survey gathered demographic information.

Coaches' perceptions of the key issues of this study were gathered through individual interviews. All coaches were interviewed in the schools where they worked. Each interview was audio taped and later transcribed. In addition to online surveys and interviews, observations were conducted by the second author of this study during some of the regular Friday training sessions. The second author also attended occasional planning meetings with Midwest Metro administrators. Other sources of data included materials provided to the research group by the Midwest Metro administrators, including training materials and project status reports to the funding agency.

DATA ANALYSIS

After transcribing audio tapes, inductive data analysis began using methods described by McMillan and Schumacher (2001). In looking for patterns presented in the data, coding of the interview transcripts began with a search for recurring words, phrases, ideas and themes that captured the coaches' ideas about the progress of the coaching initiative and their perceptions of what it takes to be a professional development coach. Additional coding was done in response to questions about sustaining the success of the coaching program. Observation notes and open-ended survey responses were coded and analyzed in the same manner. Likert scale questions from the survey were analyzed by calculating the means related to each subscale.

ISSUES OF VALIDITY AND RELIABILITY

The authors of the Change Facilitator's Stages of Concern Questionnaire (Hall, et al., 1991) provide coefficients of internal reliability for each stage of concern measured by the survey. Based on 750 participants, they reported the following alpha-coefficients for stages 0 - 6: .63, .86, .65, .73, .74, .79, and .81, denoting moderate subscale reliability.

In an effort to enhance validity, participant verbatim language was used, based on direct transcriptions from the audio taped recordings of the interviews. Member checking via email correspondence was used to clarify any possible misinterpretations of participants' statements, and

multiple researchers agreed on the interpretation of descriptive data. Additionally, this research incorporated a triangulation of data through interviews, observations, and surveys.

RESULTS AND DISCUSSION

The focus of this report is on what coaches perceive as necessary in order to prepare for the role they will take after the coaching program is over and what will be necessary in order to sustain the success of the coaching program after they return to their classrooms. The findings in this case are based on the coaches' (n = 4) interview responses, survey data, and input from observations.

WHAT DOES IT MEAN TO BE A COACH?

In general, the coaches defined coaching as a two-way relationship with the ultimate goal of improving student achievement. One coach said, "It's not a program that's the latest new thing. This is just good sound practices in the classroom." Another coach indicated that coaching is not something that is implemented overnight. It takes time to cultivate credibility in the position and build trust in a relationship before coaching can be effective. One coach stated that the teachers who participated in professional development did so because they knew what it was all about and they wanted to be there, whereas others, if not most, teachers perceived coaching as just another professional development process to be endured, and so they stayed away if at all possible.

Coaches used the terms guiding, consulting, and supporting to describe the coaching process. Other terms are included in Table 2. Although two coaches indicated that coaching was "reacting," all four coaches agreed that coaching was in a continuous state of flux. They called it "dynamic" and explained that a coach needed to be "willing to change on a dime" and use a "system of real-time prioritization" as they faced an "unpredictable stream of events."

Table 2: Terms Used in Coaches' Definition of Coaching

Term	(*n*)	Term	(*n*)	Term	(*n*)
Communicate	4	Study groups	4	Reacting	2
Dynamic	4	Appointments	3	Supporting teachers	2
Growing	4	Flexible	3	Collaborating	1
Reading	4	Modeling	3	Consulting	1
Researching	4	Guiding	2	Relationships	1

Note. n = Number of coaches, out of 4, using the term.

All four coaches indicated that they were growing through professional reading, researching, study groups, or correspondence with teachers and other coaches. They were not only working on their own growth plans but growth plans for teachers they were coaching. Often the coaches worked one-on-one with teachers as they cultivated relationships, collaborated on lessons, or worked on other problem-solving tasks. As one coach stated, "Anyone we work with will tell you the value in our being here, the quality of experience that they've had with us, and the desire to reuse us whenever possible."

Three coaches mentioned that they spent time modeling lessons or providing demonstrations to the teachers they coached. Three of them also said that appointments or meetings were a big part of their day. Two coaches mentioned spending time planning workshops or assisting with planning other types of professional development opportunities for teachers.

SKILLS AND CHARACTERISTICS NEEDED TO BE SUCCESSFUL

Through their responses to various interview questions, the coaches identified skills and characteristics they felt were essential to performing as coaches. Collectively, these skills and characteristics represented the need to have an open mind to an evolving understanding of how to "do" professional development. Two coaches focused on how much of their practice was based on reading and researching and how their reading now covered a wider spectrum of content and was more "zoned into what other teachers need." One of these coaches commented, "My knowledge base has grown exponentially, which has made me better."

Although all coaches mentioned the need for coaching relationships to be built on trust (i.e., "it's a deeply trusting relationship you have"), three of the coaches discussed the importance of working in small groups or one-on-one with teachers and how the relationships were more collaborative. "They discuss. They talk. They reflect. They review. They share. They talk more." An understanding of group dynamics, interpersonal communication skills, and leadership skills were perceived as being keys to success.

"One of my greatest strengths is my ability to put others at ease," remarked one coach. Another commented, "I'm trained to bring that negative spiral, where they just want to complain, back into a positive, forward-moving discussion." Two coaches specifically noted that their experiences in working with small groups or one-on-one with teachers helped them feel more comfortable when talking to administrators or speaking in front of their peers. They felt these experiences gave them practice in writing "a very clear and concise e-mail," and improved their overall communication skills.

One coach mentioned the increase in "my own self reflection ... maybe I'm not better at it; I just spend more time at it." This coach felt that self reflection was a necessary coaching skill. In addition, it was mentioned that coaches need "a little bit of humility, a sense of humor … those two

things are imperative," and that each coach should have a willingness to start a conversation and realize that at any given time he/she might be wrong.

Among other skills and characteristics needed to be successful, coaches identified flexibility, leadership skills, and the ability to "recognize the small successes when they happen" as essential (see Table 3). They also suggested that a coach needs the ability to debrief, to reflect, and to process aloud with somebody else acting as a sounding board.

Table 3: Skills and Characteristics Needed to be a Successful Coach

Skill or Characteristic	(n)	Skill or Characteristic	(n)	Skill or Characteristic	(n)
Interpersonal skills	4	Reading	2	Humility	1
Communication skills	4	Realistic expectations	2	Leadership skills	1
Flexibility	4	Researching skills	2	Networking skills	1
Collaboration	3	Time management skills	2	Open minded	1
Recognize small successes	3	Understand group dynamics	2	Patience	1
Trusting relationships	3	Consistency	1	Presentation skills	1
Organization skills	2	Creativity	1	Professionalism	1
Humor	2	Honesty	1	Self-reflection	1

Note. *n* = Number of coaches, out of 4, using the term.

PERCEPTIONS OF CONFIDENCE IN THE COACHING ROLE

Having identified essential skills and characteristics, two coaches said that they felt pretty confident in their roles so far. Another coach felt "today: thirty percent" and explained that confidence in the role of coach varied from day to day. The fourth coach felt very confident. However, the coach who felt very confident added, "What I'm not confident about, however, is how much opportunity I'm going to have in those situations […] I can help someone help themselves when they're willing. And so what I'm working on right now is – how to increase the willingness; how to help this culture shift to one that values [teachers'] own learning above all other things."

FACTORS IMPACTING SUCCESS

All four coaches felt they had been successful so far in the program. They based this judgment on written or verbal feedback from teachers. One coach also mentioned that there had been some work done on vocabulary acquisition strategies and that the student data that were collected initially showed growth. The coach considered this growth another sign of success.

The coaches identified the factors necessary for success. These included having a manageable workload with realistic expectations, supportive leadership at the school and district levels, and a broad and growing "knowledge base with the skill set for finding appropriate vehicles for bringing the knowledge across." In addition, all coaches agreed on the need for an external support system of meeting with other people either through their regular weekly meetings or through "a triad of people... meet with two other coaches every other week… one person is strong in one area and another person is strong in another area… people to bounce ideas off of...or get suggestions from."

Three coaches mentioned needing to allot their time differently. One coach specified needing to spend more time with teachers instead of spending it in weekly training sessions. Another of these three coaches discussed the need to focus more time working with the administrative personnel in support of the initiative. These comments are reflective of the results obtained on the survey subscale of collaboration which had the highest mean subscale score (M = 6.15/8.00) for the four coaches interviewed.

Even though all coaches considered themselves and the coaching program a success so far, three of them also mentioned some challenges. One coach noted:

> There have been coaching situations where I've been working with somebody on an idea or a project where it just fell apart… came unraveled for things that are out of my control. And no amount of follow up probably would have fixed it. I don't look at those as failures because in a large part, what that person experienced was thinking through something with another person so they felt that power of collaboration – even though it didn't work. So that's why I'm not saying it's one hundred percent successful.

Another coach specifically said that it could not be called a failure, but that there was a need to move more into other content areas: "I've got a whole lot to offer Math and Science and Social Studies. […] That's where I would like to see us be more effective." When speaking about the difficulties a coach faces in establishing relationships with content area teachers, particularly at the high school level, one coach expressed the following.

> We [teachers] do all of our thinking, all of our acting, all of our decision-making behind closed doors, by ourselves. There's not time, nor is there a cultural norm to come out of our rooms and ever talk about anything that we'll do with anyone else with the rare exception of our buddies. You might have a couple of buddies that you gain trust with that you'll talk to about things, but to make that a part of

> the routine of teaching – we've got a ways to go at that. And so gaining trust as a coach, when you're thrown into that type of culture, where people aren't used to talking to one another – the people aren't used to even honestly evaluating their own performance – that's just not a part of how we do things. …and so when you're told as a staff member, "Okay now you have these coaches that will help you reflect about your normal teaching practices," that doesn't compute. That makes no sense to you. And it's also mighty threatening too.

SUSTAINING SUCCESS

After considering their own work, their perceived levels of success for both their roles as coaches and the coaching initiative, and what they felt were essential skills, qualifications, or characteristics for achieving success as a coach, the coaches were asked what they felt was needed in order to sustain the success of the program. One of the coaches prefaced the response to this question by saying, "When we get back in the classroom, hopefully we will have started something that sustains itself. …Things that we will have started include an ever so slight shift in the culture towards collaboration and towards self directed professional development."

In planning for the future, the coaches listed personal plans that included staying on top of research, continuing to participate in learning communities, and pursuing certification as a mentor. Three of the coaches mentioned the planned availability of a supportive website for teachers within the school system. All of them had images of continuing to work as a coach, consultant, resource, trainer, collaboration coordinator, or teacher leader of some sort. One of the coaches envisioned "working more… a lot more… with new teachers rather than staying in my classroom." Another coach imagined doing more for internal professional development efforts.

When asked, specifically, what they thought would be needed to sustain or grow the results of the coaching program, the responses focused on two issues. The first issue was the use of a professional development website that was being developed as a performance support tool. The second, and perhaps most important, was the utilization and networking of teachers. Comments from the coaches included: "Help the teachers become those staff development people so that it's not just me - that they are able to carry on when I'm gone," and "Look to people that can be just as good as leaders as myself but haven't been given the opportunity."

Coaches were also asked what they thought the administration could do in order to sustain the success of the initiative. Coaches responded that the administration should figure out how to use the coaches after the initiative so that the work done and progress made "doesn't just disintegrate with us as we go back into the classroom." Coaches unanimously agreed that part of the planning needed to include collaborative efforts, which is again reflective of the survey results. In particular, this was reflected in the collaboration subscale item, "Working with administrators and other change facilitators in facilitating use of this initiative is important to me" (M = 6.67/8.00).In addition, the coaches agreed that administrators should continue working on the development of a learning

community, establishment of a network of human resources within the school, and allowing time for key resource personnel to meet on a regular basis.

SUMMARY

Even though the coaches' definitions of coaching are still evolving and somewhat different from each other, they perceived that they have most of the necessary skills, are confident in their roles as coaches, and feel mostly successful in the performance of their jobs as digital age literacy coaches. However, as Phillips (1998) described, the most difficult part of coaching is trying to teach or coach someone who does not want to be coached. The Midwest Metro coaches in this study agreed, but also had concerns about collaboration efforts and how to sustain their success after returning to their classrooms.

Coaches indicated that the keys to success included having an understanding of group dynamics, strong interpersonal communication skills, and effective leadership skills. However, they also indicated that they are lacking the tools they need to achieve overall success. Supportive leadership from administrators and a network of support materials and methods are the things that they need to achieve their goal.

IMPLICATIONS

Data from coaches verify that coaches used a combination of methods and practices in order for their coaching to be successful. Literature has shown a need for combining various methods of professional development (Guskey, 1995). Coaches from Midwest Metro specifically mentioned the use of action research and the beginning development of a learning community. They also used workshops, modeling, and small group problem-solving in their coaching practices.

Results also expand on findings from Edwards and Green (1999) that hint at a transition from coaching to mentoring. In Edwards and Green's work this transition was demonstrated through the change in character of the coaches over an extended period of time. However, in the Midwest Metro study, the connection between coaching and mentoring was not only expressed through the coaches' perceptions of what would be needed in order to sustain or grow the results of the program, but also in some of the changes they had experienced in their skills and qualifications as a result of the initiative.

Coaches in this study clearly indicated a need for support from school administration. This parallels the work of Garmston (1992) who suggested that coaching alone was not enough to bring about a lasting or revolutionary change and that it was the responsibility of the school to develop an environment or culture that supported the initiative.

Relating this back to the literature, effective coaching is limited if done in isolation or with little follow-up or support to sustain the results (Lee, 2001; Swafford, 1998; Veenman & Denessen, 2001). Since coaching is an inherent part of what a mentor does (Jones, 2001; Williams, 2001) and,

as indicated by the coaches in this study , coaching requires some of the skills found in mentoring, this implies that the combined use of coaching and mentoring may be the solution to sustaining or growing the results of the coaching initiative.

In comparing what the literature says about mentoring with data obtained from the Midwest Metro coaches, we see in Table 4 that there is overlap between the key factors of coaching and mentoring. The only factor that has no commonalities between mentoring and coaching is the timeline factor. In the case of the Midwest Metro coaches, the coaching initiative was scheduled to continue for only a few years. After that time, the coaches would return to their classrooms.

Table 4: Comparison between Coaching and Mentoring

Factor	Coaching (a)	Mentoring (b)
Focus	Focus on "how" Build performance Quickly grasp knowledge, skills, and behaviors	Focus on "how" and "why" Building a career Development of the individual Enhancing networking
Timeline	Temporary (a month to a few years)	Long term (a career or a lifetime)
Relationship	Advisor Sounding board Trusted guide	Advisor, teacher, trainer, Coach Sounding board Trusted guide, friend, partner, role model, Supporter
Skills	Interpersonal skills Communication skills Leadership skills Organization skills Researching skills Self-reflection	Interpersonal skills Communication skills Coaching skills Organizational skills Multi dimensional skills (spiritual, intellectual, emotional)
Characteristics	Collaborative Patient, flexible, consistent Professional Open minded, realistic expectations	Collegial Patient, supportive, tolerant Practical experience Reliable

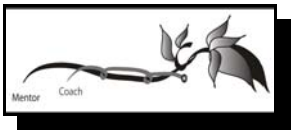
Note. (a) Midwest Metro coaches. (b) Blank & Sindelar, 1992; Clark, 1995; Ganser, 1999; Jones, 2001; Megginson, 1988.

Following Megginson's (1988) suggestion that coaching and mentoring should be used along a timeline of performance improvement, Figure 1 suggests the relationship between coaching and mentoring as they progress along that continuum.

In Figure 1, professional development begins on the left with either mentoring or coaching. As we move from left to right, the two approaches merge because coaching skills and characteristics intertwine with those of mentoring, and mentoring includes having the skills it takes to be a coach.

Because coaching is temporary and mentoring is long-term, the coach's role comes to an end. However the supporting role of a coach is carried throughout the remainder of the continuum as part of the job of a mentor, and coaching can be repeated as necessary.

Figure 1. The coaching/mentoring relationship: How coaching is sustained through mentoring.



If professional development through mentoring or coaching is addressed in stages, then this suggests that the strongest professional development would take place during the coaching stage. The mentoring stage can overlap with the coaching stage, and the mentor and coach roles can be filled by one person. The coaching is complete when the person being coached either exhibits targeted skills and behaviors or demonstrates understanding of new knowledge (Carter, 2001; Veenman & Denessen, 2001). One can assume that the success of coaching efforts can be sustained through continued mentoring relationships. In effect, this suggests that today's coaches are preparing tomorrow's mentors.

LIMITATIONS OF THE STUDY AND SUGGESTIONS FOR FUTURE RESEARCH

This study of four coaches at Midwest Metro has several limitations, the foremost of which was the small number of participants. In addition, we did not examine administrators', teachers', or students' perspectives about the coaching initiative. With the ultimate goal of professional development being an increase in student achievement, it will be important to continue this study and to examine the differences in student learning outcomes as a result of the initiative.

Future research should compare the outcomes of this limited case study to the rest of the coaches in the Midwest Metro school district. Future studies might look at the differences in contexts (multiple coaches per school versus single coaches in a school), or differences between types of coaches (elementary versus high school). To answer the question about what it takes to be a successful professional development coach or what is needed to sustain the results of the initiative, a longitudinal study might present information about how coaching changes over time and what types of support are needed to sustain the results. It might also show that improved levels of student achievement taper off, level off, or decline at some point following the return of the coaches to their classrooms. This might then address the question of whether results of a successful professional development initiative are sustained or grown after an extended period of time following the initiative.

REFERENCES

Blank, M.A. & Sindelar, N. (1992). Mentoring as professional development: From theory to practice. *Clearing House*, 66(1), 22-26.

Carter, A. (2001). *Executive coaching: Inspiring performance at work*. Institute for Employment Studies, Brighton, England: Sussex University.

Clark, E. (1995). Mentoring: A case example and guidelines for its effective use. *Youth Studies, 14*(2) 37-43.

Cochran, B. & DeChesere, J. (Feb/Mar, 1995). Teacher empowerment through cognitive coaching. *Thrust for Educational Leadership, 24*(5), 24-27.

Edwards, J. L., & Green, K. E. (April, 1999). *Growth in coaching skills over a three-year period: Progress toward mastery.* Paper presented at the Annual Meeting of the American Educational Research Association, Montreal, Quebec, Canada.

Ganser, T. (1999). Coach, safety net, compass, sculptor: How mentors describe mentoring. *Contemporary Education, 70*(2), 42-44.

Garmston, R. J. (1992). Cognitive coaching: A significant catalyst. In A. Costa, J. Bellance, & R. Fogarty (Eds.) *If minds matter: A foreword to the future, Volume I: Rationale for change.* Palatine, IL: Skylight Professional Development. Retrieved September 5, 2003 from http://www.newhorizons.org/strategies/cognitive_coaching/front_cognitive.htm

Guskey, T. R. (1995). *Results-oriented professional development: In search of an optimal mix of effective practices.* North Central Regional Educational Laboratory (NCREL), Naperville, IL. Retrieved February 24, 2003, from: http://www.ncrel.org/sdrs/areas/rpl_esys/pdlitrev.htm

Hall, G. E., Newlove, B. W., George, A. A., Rutherford, W. L., & Hord, S. M. (1991). *Measuring change facilitator stages of concern: A manual for the use of the CFSoSCQ Questionnaire.* Greeley, CO: Center for Research on Teaching and Learning, University of Northern Colorado.

Jones, M. (2001). Mentors' perceptions of their roles in school-based teacher training in England and Germany. *Journal of Education for Teaching: International Research and Pedagogy, 27*(1), 75-94.

Joyce, B., & Showers, B. (1980). Improving inservice training: The messages of research. *Educational Leadership, 37*, 379-385.

Lee, H. (2001). *Enriching the professional development of mathematics teachers.* ERIC Digest. ERIC Clearinghouse for Science Mathematics and Environmental Education: Columbus, OH (ERIC Reproduction Services No. ED 465495).

Little, J. W. (1994). Teachers' professional development in a climate of educational reform. *Educational Evaluation and Policy Analysis*, *15*(2), 129-151. Reprinted in R. J. Anson (Ed.) (1994). *Systemic reform: perspectives on*

personalizing education. Washington, DC: U.S. Government Printing Office. Retrieved March 16, 2003, from http://www.ed.gov/pubs/EdReformStudies/SysReforms/

MacLennan, N. (1995). *Coaching and mentoring.* Brookfield, VT: Gower.

McLymont, E. F., & Da Costa, J. L. (April, 1998). Cognitive coaching: The vehicle for professional development and teacher collaboration. Paper presented at the Annual Meeting of the American Educational Research Association, San Diego, CA. (ERIC Document Reproduction Service No. ED 420637).

McMillan, J. H. & Schumacher, S. (2001). *Research in education: A conceptual introduction.* (5th ed.). New York: Addison Wesley Longman.

Megginson, D. (1988). Instructor, coach, mentor: Three ways of helping for managers. *Management Education and Development, 19*(1), 33-46.

National Commission on Teaching and America's Future (2003). *No dream denied, A pledge to America's children*. Washington, D.C.: National Commission on Teaching and America's Future.

North Central Regional Educational Laboratory (2001). *The enGauge 21st-century skills.* Retrieved March 29, 2003, from http://engauge.ncrel.org

Phillips, K. R. (1998). The Achilles' heel of coaching. *Training & Development, 52*(3), 41-45.

Renyi, J (1996). *Teachers take charge of their learning: Transforming professional development for student success.* NEA Foundation for the Improvement of Education. A report to the National Education Association, Washington, D.C.

Showers, B., & Joyce, B. (1996). The evolution of peer coaching. *Educational Leadership, 53*(6), 12-16.

Swafford, J. (1998). Teachers supporting teachers through peer coaching. *Support for Learning, 13*(2), 54-58. British Journal of Learning Support: National Association for Special Educational Needs.

U.S. Department of Education (2000). *Schools and school districts recognized for outstanding professional development.* U.S. Department of Education press release. Retrieved February 21, 2003, from http://www.ed.gov/PressReleases/09-2000/0918.html

Veenman, S. & Denessen, E. (2001). The coaching of teachers: Results of five training studies. *Educational Research and Evaluation, 7*(4) 385-417.

Williams, B. (2001). *Adult learning theory: The mentoring connection.* ERIC Clearinghouse for Teacher Education (SP039775). (ERIC Document Reproduction Services No. ED450101).

EMPOWERING STUDENTS WITH DISABILITIES THROUGH MUSIC INTEGRATION IN THE CLASSROOM: MUSIC THERAPY ON STUDENT

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ABSTRACT

The purpose of this study is to suggest ways in which teachers can employ music therapy to encourage the cognitive, learning, perceptual, motor, social and emotional development of disabled children. The paper is organized into the following sections: (1) Background of music and children with disabilities; (2) The aims of music therapy; (3) Main contributions to cognitive, biopsychosocial development of children with disabilities, (4) Implications for learning, and (5) Implications for using music to accommodate children with disabilities in an inclusive classroom.

BACKGROUND

Music therapy is considered a related service modality in special education (IDEA, 1997). Music therapy can play an important role in special education because many students with disabilities need special instructional treatment. Music is an ancient method for healing. It neutralizes negative feelings, increases stress tolerance level and harmonizes inner peace. The use of music therapy can help people who are crippled by differing cognitive and biopsychosocial problems. It can also help to improve the quality of life for people with disabilities of various kinds. The IDEA (Individual with Disabilities Act) requires schools to provide related services and equipment for a student with a disability to ensure a "free and appropriate" public education. The reauthorization of IDEA (1997) mandates related services to be included into the Individual Education Program (IEP). In 2001, with passage of the No Child Left Behind Act (NCLB), the U.S. Department of Education is embracing evidence based research in order to improve the effectiveness of educational intervention and in turn, academic achievement. Regular education and special education teachers are given increased responsibilities for students with disabilities in their classrooms. Recent research indicates that music therapy has a positive impact on students' cognitive development.

AIMS

During the past decade, there has been a steady growth in the research base on the impact of music to children with disabilities. A vast majority of the research has mainly focused on music and medicine (Pratt, 1991; Chaquico, 1995; & Weinberger, 2000), music therapy (Pelliten, 2000), music as the basis for learning (Collett, 1992), usefulness of expressive arts (Dixon & Chalmers, 1990), usefulness of music to treat students with emotional and behavioral disorders (Houchens, 1983; Shennum, 1987; Gfeller, 1989, & King, 1994). While numerous studies address the more different forms of disability, such as learning disabilities, very few studies provided a comprehensive view of disability categories such as autism (Staum, n.d.; & Stambough, 1996), mental retardation (MR) or cognitive delays, attention deficit disorders (ADHD), learning disabilities (LD) and physical and other health impairments (POHI). The current review builds on previous efforts to examine research on the effects of music therapy to children with disabilities.

MAIN CONTRIBUTION

Students with disabilities arrive daily in music classes from kindergarten through high school. Effective integration of music in the content areas creates a learning environment that makes all children want to learn. Collett (1992) reported a successful music integrated curriculum which works well with bilingual and special education students. Music integration provides children with concrete, hands-on experiences that are essential to developing each child's ability to reason, think, solve problems, analyze, evaluate, and enhance creativity (Houchens, 1983). Several studies have investigated the effects of music therapy on children with cognitive disabilities. Straum (n.d.), for example, suggested the use of music to assist students with autism disorder in the areas of social and language development. Autistic children have eliminated their monotonic speech by singing songs composed to match the rhythm, stress, flow and inflection of the sentence followed by a gradual fading of the musical cues.

The author also argues that music can be used as a tool to encourage human development in cognitive, learning, perceptual, motor, social and emotional development. In a related study, Stambough (1996) conducted an action research at a music camp to 37 campers ages from 9-45, each suffering various degrees of a genetic condition called Williams Syndrome, which leads to cognitive impairment. She found that employing several strategies and techniques such as listening, singing, clapping, tapping, composing, playing an instrument, combined with a great deal of patience, helped to accommodate the special needs of the students. Other researchers suggested steps for facilitating the integration of students with emotional or behavioral disorders into the regular music classroom. Results gathered from King & Schwabenlender (1994), for example, reported numerous supportive strategies for promoting emotional well-being in children from a diverse background, including (list the strategies). In all cases studied, the underlying message is

the same: allowing children to be expressive provides them with a sense of empowerment (Dixon & Chalmers, 1990).

IMPLICATIONS

Special education teachers have used music to alter mood and assess emotional problems. Music allows the individual to invent emotions. Music is viewed as an integral part of all children's lives. Children enjoy listening to music, singing, and humming. Music may effectively enhance the ability to cope with stress. One author suggests that music should be in both music classes and regular education classrooms. She found that integrating literature with musical content helped to bring books alive and that musical classrooms encouraged children to relate and participate in the activities (Giles, Cogan, & Cox, 1991). Unfortunately, very few studies offer a comprehensive view of some disability categories such as autism (Staum, n.d.; & Stambough, 1996), mental retardation (MR) or cognitive delays, attention deficit disorders (ADHD), learning disabilities (LD) and physical and other health impairments (POHI). Due to this lack of research, little is known about effective treatment for these disabilities. Below is a list of practical, relevant, and evidence-based strategies teachers can use to help students with various disabilities through music.

SPEECH AND LANGUAGE IMPAIRMENTS

Music is more than a leisure activity. It is more than verbal counseling. It is a sophisticated cognitive, linguistic, social and psychological vitamin pill. Music provides a form of compensation for those with language impairments as well as a means of facilitating language development. To get the maximum benefit from music, first, find a piece of music enjoyable to the student. Second, encourage students to participate in the musical activities. Third, have students verbally identify an instrument by name before he or she can play it. Fourth, learn words and articulate particular phonemes through singing songs. Fifth, create non-judgmental and nonverbal activities to help make students feel comfortable. Sixth, create activities where any vocal sound is accepted as a creative part of the improvised music. Last, incorporate vocal sounds that are spontaneously emitted and that are elicited from the music making.

ORTHOPEDICS AND HEALTH IMPAIRMENTS

Music affects heart beat, pulse rate, and skin responses (Hodges, 1980). Place an instrument at a strategically placed distance to increase hand or arm movement. Swing a mallet to strike a drum to help increase the range of motion. Telling a student to hold a musical instrument may help the development of fine motor coordination. Vary the intensity of clapping, jumping, stamping, pounding, swinging, and snapping, etc. according to the severity of the disability. Use slow and gentle music to increase flexibility and to decrease hyper tense muscular contractions.

COGNITIVE DISABILITIES

Research in neurological functioning supports the association between music and cognitive development. Music organizes sounds and silences in a flow of time. It creates expectations which are then satisfied. It raises a question and solves it. Use mnemonic devices for remembering sequences (the alphabet song). Use categorical structures to differentiate (animal farm, color, etc.). Connect sound with a concept (a cow makes a "moo" sound").

ATTENTION DEFICIT /HYPERACTIVE DISORDERS AND LEARNING DISABILITIES

Music focuses on accuracy and attention. Learning how to play an instrument can improve attention, concentration, impulse control, social functioning, self-esteem, self-expression, motivation and memory. Connect a particular vocal sound with a particular body movement. Provide more than one neural pathway by using multi-sensory channels. Use visual, auditory and kinesthetic (striking a drum, clapping hands). Use the inherent structure in songs to reinforce a sense of internal order. Use rhythm, steady pulse, and basic beat of music as a model to help student to experience order, sequence, and a sense of consistency.

GIFTED AND TALENTED

Music focuses on deeper psychological process and allows creative expression. Challenge gifted students to adapt their existing abilities in ways that enable them to produce music.

EMOTIONAL AND BEHAVIORAL DISORDERS

Music creates physiological responses, which are associated with emotional reactions. Music explains the tension release sequence associated with emotional arousal (Abeles, 1980). The speed and intensity of the musical beat creates the different feelings in each type of song. The opportunity to play an instrument can be used as a reinforcer for on task behavior. Use small group music therapy to facilitate socialization and interpersonal interactions. Encourage student to play different instruments in the songs. Allow students to express individually while participating as a group. Use the common musical beat to unite group cohesion and concrete group dynamic. Use music activities that require a member to imitate the body movement or rhythmic pattern of another member. Teach students to take turns when there is only one instrument available to share within a group. Use a sharing space while playing musical instruments to control impulse.

The effects of music therapy on children with disabilities are numerous. This paper introduced the background of music and children with disabilities, and the rationale behind music integration in an inclusive classroom. Music therapy has been proven to contribute to cognitive,

psychosocial and academic development. By following these practical guidelines, children with special emotional, physical and psychological needs can be better accommodated.

REFERENCES

Abeles, H. (1980). Responses to Music. In D. A. Hodges (ed.). *Handbook for Music Psychology* (pp. 105-140). Dubque, IA: National Association for Music Therapy.

Chaquico, C. (1995). Music can aid the healing process. *Billboard, 107* (14), 6

Dixon, G. T., & Chalmers, F. G. (1990). The expressive arts in education. *Childhood Education, 67*, 12-17.

Gfeller, K. (1989). Behavior disorders: Strategies for the music teacher. *Music Educators Journal, 75*(8), 27-30.

Giles, M. M., Cogan, D., & Cox, C. (1991). A music and art program to promote emotional health in elementary school children. *Journal of Music Therapy, 28*, 135-148.

Hodges, D. (1980). Neurophysiology and musical behavior. In D.A. Hodges (Ed.), *Handbook of Music Psychology* (pp. 195-224). Dubuque, IA: National Association for Music Therapy.

Houchens, C. J. (1983). A personal adjustment curriculum for secondary behaviorally disordered students. Paper presented at the Minnesota Conference on Programming for the Development needs of Adolescents with Behavioral Disorders. Minneapolis, MN.

IDEA (1997). The Individuals with Disabilities Act Amendments of 1997. Retrieved March 9, 2004 from Web site: http://www.ideapractices.org.

King, R. P., & Schwabenlender, S. A. (1994). Supportive therapies for EBD and at-risk students: Rich, varied, and underused. *Preventing School Failure, 38*(2), 13-18.

Moyer, J. (1990). Whose creation is it, anyway? *Childhood Education, 66*, 130-131.

Pelliteri, J. (2000). The consultant's corner: Music therapy in the special education setting. *Journal of Educational & Psychological Consultation, 11* (3/4), 379-392.

Pratt, R. R. (1991). Music education and medicine. *Music Educators Journal, 77*(5), 31-37.

Rodocy, R., & Boyle, J. D. (1988). *Psychological foundations of musical behavior* (2nd Ed.). Springfield, IL: Charles Thomas.

Shennum, W. A. (1987). Expressive activity therapy in residential treatment: Effects on children's behavior in the treatment milieu. *Children & Youth Care Quarterly, 16*, 81-90.

Sidorenko, V. N. (2000). Clinical application of medical resonance therapy music in high-risk pregnancies. *Integrative Physiological & Behavioral science, 35*(3), 199-207

Stambough, L. (1996). Special learners with special abilities. *Music Educators Journal, 83*(3), 19-24.

Staum, M. J. (n.d.). Music therapy and language for the autistic child. Retrieved December 12, 2003, from Willamette University, Salem, Oregon Web site: http://www.autism.org/music.html

Weinberger, N. M. (2000). Music and the brain: A broad perspective. *Music Educators Journal, 87*(2), 8-9.