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Program Committee

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Mayur Desai, Texas Southern University, TX

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S. Srinivasan, Texas Southern University, TX (Conference Chair)

Kun Wang, Texas Southern University, TX

Preface

The 23rd Annual Southwestern Business Administration Teaching Conference was held at the Jesse H. Jones School of Business at Texas Southern University in Houston, Texas. We had a full day of presentations on October 29, 2015 and half-a-day of presentations on October 30, 2015. There were a total of 40 presentations at the conference. A booklet consisting of the Conference Abstracts was distributed to all attendees. It is also available through this web site. All presentations were accepted after a review by two academics. All presenters were given the opportunity to submit an extended version of their paper. The submissions included in this Conference Proceedings reflect the final versions of these documents after the reviewers' comments were incorporated.

Houston, TX
December 10, 2015

S. Srinivasan, Ph.D.
Conference Chair and Associate Dean

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A PRACTICAL COACHING MODEL FOR CRITICAL THINKING SKILL AND LEADERSHIP DEVELOPMENT (C/CTSLED)

Gwendolyn Catchings
Jackson State University
Jackson, MS
gcatchme@aol.com

ABSTRACT

Critical thinking skills are a core competency needed by today's leaders. However, a deficiency in critical thinking skills in the workplace has been well documented, and research has shown dire consequences for the individual and the organization. This paper espouses a practical coaching model for improving critical thinking skills and facilitating leadership development. Using a solution-focused approach with the six critical thinking skills as identified by the APA Delphi Research Report, its iterative nature fosters the formation of "habits of mind". Using coaching (questioning) techniques on the first four skills, qualitative (interview) data was gathered from new entrants into the workforce. Improvements in their critical thinking skills were measured using quantitative data (pre, mid and post) gathered from the California Critical Thinking Skills Test. Results showed improvements in critical thinking skills for almost all participants (future leaders). These findings support the value and use of coaching and critical thinking skill development in management/leadership development programs, or any program focused on personal and/or professional development. Future research warrants the use of an extended coaching schedule (for individual and group participation) and the inclusion of the last two skills. In addition, the use of a larger research sample and follow-up testing/evaluation for a year to validate the formation of "habits of mind" is needed.

KEYWORDS: critical thinking, coaching, leadership development, solution-focused coaching, coaching psychology, habits of mind, California Critical Thinking Skills Test

1. INTRODUCTION

Critical thinking consists of a set of skills and competencies, and encompasses an individual's "ability to make decisions by analyzing issues and evaluating options, recognizing the existence of assumptions and the need to make inferences" (Walker & Diaz, 2003, p. 64). A report by The Conference Board (2006) highlights the value of critical thinking skills for new entrants to the workforce. However, research confirms the existence of a critical thinking deficiency. The problem has been studied extensively and not only does it exist, but students' critical thinking skills in higher education have shown minimum improvement over the years (Tsui, 2008; Flores, Matkin, Burbach, Quinn & Harding, 2012). Flores, et al. (2012) highlight the fact that this deficiency carries over into the workplace, a position that is supported by an earlier report by the Robert Wood Johnson Foundation (2006), which showed the value of critical thinking to workforce efficiency.

A skill deficiency has had and will continue to have dire consequences for the workforce. More importantly, a lack of critical thinking skills translates into an inability to lead (and become future leaders) (Flores, et al., 2012). The problem has already manifested itself in the workplace because most leaders lack strong critical thinking skills (Rooke & Torbert, 2005). Examples of this as identified in the California Critical Thinking Skills Test (CCTST) User Manual (Insight Assessment, 2015) are seen in "dangerous and costly errors, repeated mistakes, bad decisions, failed systems, inaction when action is needed, the giving of bad advice, inaccurate assumptions, and the lack of anticipated action" (p. 9). In essence, if future leaders lack these skills, they will be less effective and their mistakes could have severe consequences for the future of the organization (Carroll & Mui, 2008; Spreier, Fontaine & Malloy, 2006). On the other hand, not only does excellent leadership move the firm forward, it enables the organization to make meaningful contributions to the global economy (Flores, et al., 2012). Thus, the research question presented here is "Can coaching improve critical thinking skills (and facilitate leadership development)?"

2. LITERATURE REVIEW

2.1 Leadership Development

Leadership is an elusive concept that has different meaning in different environments. However, most organizations describe it as a set of skills and competencies needed in a given situation or level in the organization to ensure individual and organizational success. Mumford, Campion, and Morgeson (2007) divided leadership skills into four categories: cognitive, interpersonal, business and strategic, with cognitive as the most important. Cognitive skills are mental skills (reasoning, perception, and intuition) used to acquire new knowledge and new ways of solving problems. They serve the vital function of processing thought, and deficiencies in this area create challenges in an individual's ability to effectively lead (Flores, et al., 2012). Thus, the goal of "leadership development" is to instill in current and future leaders the skills and competencies needed to be successful, and of upmost importance are critical thinking skills.

2.2 Critical Thinking (CT) Perspectives

Early research by Dewey (1933) highlighted the importance of having a critical thinking mindset ("habits of mind") for solving personal and professional problems. Since then, varying views have been espoused in describing critical thinking.

Weinstein (1995) adds that critical thinking fosters a higher level of reasoning and comprehension. In addition, the critical thinking challenges presuppositions and enlarges the range of possible solutions to problems. Thus, critical thinking and creativity (in finding alternatives) are complementary concepts.

More recently, Ticușan and Elena (2015) define critical thinking as “a way of approaching and solving problems based on convincing, logical and rational arguments, which involve verifying, evaluating and choosing the right response for a given task and reasoned rejection of the other alternative solutions” (p. 309). Critical thinking is also an active, coordinated, complex process involving thought processes. Fundamental is the interaction of positive and negative information to determine its truth value, and the further processing of this information to generate new ideas. Jiang and Yang (2015) conclude that “employees with strong critical thinking ability can identify problems from complicated situations, gather relevant information, and create alternative solutions” (p. 1228). In addition, they are better equipped to deal with large amounts of information which leads them to more and better ideas drawn from varying viewpoints.

Although there are varying perspectives on critical thinking, there are key aspects that can provide a functional view. Flores and Matkin (2012) propose that the key elements are “skills, rationality, openness to alternative viewpoints, suspension of prior constructions, introspective reflection, and non-egocentric processing (p. 5), with reflection being critical to the process (Grossman, 2009; Lizzio & Wilson, 2007). Thus, critical thinking involves using prior beliefs to process new information (Papastephanou & Angeli, 2007; West, Toplak & Stanovich, 2008), while thinking logically, even when logic and our beliefs differ (West, et al., 2008). Another commonality is “an ability to use reason to move beyond the acquisition of facts to uncover deep meaning” (Weissberg, 2013, p. 318).

1.3 Consensus Definition of Critical Thinking

In 1987 the American Psychological Association [APA] sought to formulate a consensus definition by commissioning what turned into a two-year research project spearheaded by Peter Facione. Using a Delphi approach with an international panel of forty-six men and women experts from various disciplines from the United States and Canada, the world famous study is now called the APA Delphi Research Report (The American Philosophical Association, 1990). The resulting report not only defined critical thinking, it identified and described its core critical thinking skills and subskills. The document is still being used today to aid in the understanding of critical thinking theory. In addition, the Report's recommendations have been invaluable for critical thinking instruction and assessment.

The definition of critical thinking according to the APA Delphi Research Report (The American Philosophical Association, 1990) offered a definition of critical thinking as the “... purposeful, self-regulatory judgment which results in interpretation, analysis, evaluation, and inference, as well as explanation of the evidential, conceptual, methodological, criteriological, or contextual considerations upon which that judgment is based” (p. 27). According to Section 8 of the California Critical Thinking Skills Test [CCTST] User Manual, the six core critical thinking skills are:

1. Interpretation: To comprehend and express the meaning or significance of a wide variety of experiences, situations, data, events, judgments, conventions, beliefs, rules, procedures or criteria.

2. Analysis: To identify the intended and actual inferential relationships among statements, questions, concepts, descriptions or other forms of representation intended to express beliefs, judgments, experiences, reasons, information, or opinions.
3. Evaluation: To assess the credibility of statements or other representations which are accounts or descriptions of a person's perception, experience, situation, judgment, belief, or opinion; and to assess the logical strength of the actual or intended inferential relationships among statements, descriptions, questions or other forms of representation.
4. Inference: To identify and secure elements needed to draw reasonable conclusions; to form conjectures and hypotheses; to consider relevant information and to educe the consequences flowing from data, statements, principles, evidence, judgments, beliefs, opinions, concepts, descriptions, questions, or other forms of representation.
5. Explanation: To state the results of one's reasoning; to justify that reasoning in terms of the evidential, conceptual, methodological, criteriological and contextual considerations upon which one's results were based; and to present one's reasoning in the form of cogent arguments.
6. Self-regulation: Self-consciously to monitor one's cognitive activities, the elements used in those activities, and the results educed, particularly by applying skills in analysis and evaluation to one's own inferential judgments with a view toward questioning, confirming, validating, or correcting either one's reasoning or one's results (p. 73).

2.4 Coaching Defined

Coaching developed from a multitude of disciplines, including philosophy, sociology, anthropology, sports, communication science and even natural sciences (Brock, 2008). It has been described as a professional collaborative relationship between a coach and coachee (O'Broin & Palmer, 2009). However, its true value is a positive intervention whereby the coach facilitates an experiential learning process (Biswas-Diener, 2009) for performance improvement in both the personal and professional lives of individuals (Davison & Gasiorowski, 2006) to help develop their attitudes and skills (Whitworth, Kimsey-House, & Sandahl, 1998). Grant (2003) provides a more general definition of coaching as a "result-oriented, systematic process in which the coach facilitates the enhancement of life experience and goal-attainment in the personal and/or professional life of normal, non-clinical clients" (p. 254). In essence, it helps people find "real-life solutions to real-life problems" (Grant, 2013, p. 36). When conducted by a professional, coaching has been shown to be an effective intervention for employee performance improvement and to have a positive effect on psychological variables, i.e., self-regulation, self-insight and solution-focused thinking (Theeboom, Beersma & van Vienen, 2013) and thus it facilitates organizational effectiveness (Grant, 2003).

Empowering others by unlocking their potential is a key coaching activity with a key premise being that every individual has the potential for growth

(Biswas-Diener, 2009). Thus, the ultimate aim is to bring about deep-level changes and learning (de Haan, Culpin & Curd, 2011). Coaching is accomplished by asking powerful probing questions, while allowing the person to think and formulate an answer/response. If stuck, the coach can offer guidance but only by way of follow-up questions (scaffolding). The general consensus is that the more questions posed (and answered), the deeper the learning (Wiersema & Licklider, 2009). Another common aspect of coaching is the coach's ability to actively listen, use cognitive tools, and hold the individual accountable by assigning homework (Biswas-Diener, 2009).

As discussed by Wiersema and Licklider (2009), the focus is on metacognitive awareness of thinking, and it is this metacognition process of "thinking about one's own thinking" (p. 123) that causes learning to occur. Of paramount importance is a process of self-reflection (Wiersema & Licklider, 2009; Robinson & Gahagan, 2010; Flores, et al., 2012) where individuals broaden their perspective (making it different and better) by removing personal "biases, beliefs and assumptions" (Wiersema & Licklider, 2009, p. 119). Theeboom et al., (2013) take an even stronger position espousing that individuals must have opportunities for critical reflection and experimentation in order to insure that deeper learning takes place.

2.5 Coaching and Psychology

A trend in the coaching profession is the blending of coaching with psychology, i.e., cognitive, behavioral and solution-focused therapies (Biswas-Diener, 2009). Thus forms the field of coaching psychology with its focus on behavior, cognition, and emotion (Passmore, 2010). The basic premise is that all coaching requires the use of the brain and the goal is to get the brain to change the way it thinks (Grant, 2015). In essence, we "coach the brain" (Grant 2015, p. 24).

A solution-focused approach to coaching focuses on finding solutions (versus analyzing problems from the past) and is well-established in the field of psychology (Grant, 2015). It has been shown to bring about cognitive and behavioral changes, and aid in the achievement of goals (Grant, 2003; Mackie, 2014). The process relies on the individual's resilience, strengths and resources and uses them to identify ways to achieve goals and bring about positive change (Grant, 2011). Solution-focused principles as compiled by Grant (2013) include:

- A focus on solutions (formation of solutions versus the problem)
- An assumption that positive change will occur (an expectation that the client will engage in change-relative behavior)
- The use of a collaborative working alliance (coach and client are equals)
- Changing the viewing to change the doing (taking a different perspective)
- Being pragmatic and flexible (focus on what works) (p. 37).

There is empirical evidence to support the use of a solution-focused approach in various coaching areas, i.e., personal, organizational, executive and sports (Bell, Skinner & Fisher, 2009; Grant, 2003; Jackson & McKergow, 2002; Szabo & Meier, 2009). In actually, coaching employs both problem-focused and solution-focused approaches. However, research shows that although both bring about change, the latter is more effective (Grant, 2012). As in other approaches to coaching, effective questioning is critical to the process (McKergow & Korman, 2009) and raises awareness so that individuals can create their own actionable solutions (Grant, 2013).

3. THE COACHING MODEL

Coaching for Critical Thinking Skill and Leadership Development [C/CTSLED] is a skill-building model that utilizes a number of concepts (listening, silence, questioning, and scaffolding) and borrows from a myriad of theories (experiential learning, collaborative learning, transformation learning, self-discovery, adult learning, reflective judgment and learning, active learning, personal construct theory, reconstruction, reflective observation) all of which prove invaluable to its formation and operation.

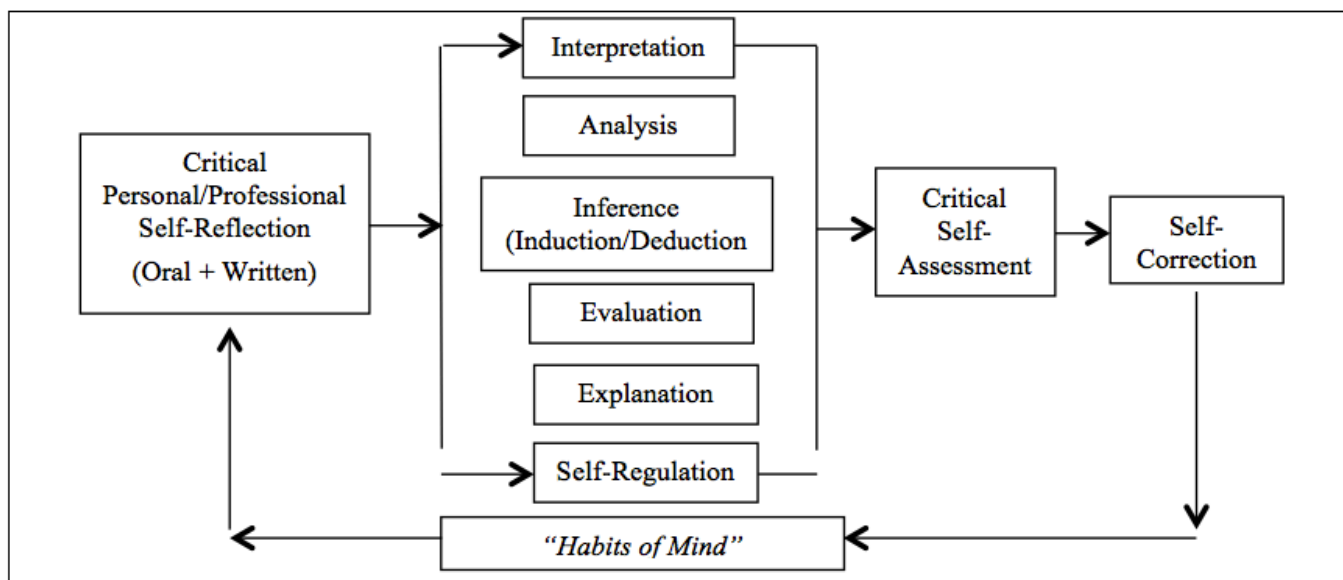


Figure 1. Coaching for Critical Thinking Skill and Leadership Development Model

Figure 1 shows the CCTS/LD Model which starts with oral and written critical self-reflection on each of the critical thinking skill area, followed by critical self-assessment and self-correction. It is a continuous process which should result in the formation of “habits of mind”. For a detailed explanation of each area:

- A. Critical Self-Reflection – deep thought on significant past personal and professional experiences; chronicled by journaling (written) and narration (using “talk aloud”/“think aloud” approach). A coach poses thought-provoking questions (and follow-up questions) while using listening and silence as tools for thinking and reflecting.

- B. Critical Thinking Skills – in a group format, develop content knowledge on each of the six CT skills, sub-skills and examples using various instructional methods; followed by their application via assignments, guided instruction and practice.
- C. Critical Self-Assessment – deep, honest self-evaluation of our experiences (including thought process, biases, beliefs, assumptions, attitudes and perspectives) and our subsequent actions and behaviors.
- D. Self-Correction – Applying results of Self-Assessment to reconstruct/reinvent ourselves and our thinking; revision of persona theories and paradigm shifts; regulate future thoughts, actions and behaviors.
- E. Habits of Mind – continuously repeating the process via self-coaching (questioning ourselves) relative to new and old experiences; using systematic inquiry that results in intentional, habitual, deep and logical thinking; a subconscious mind.

4. RESEARCH METHODOLOGY

This research project took place during the Fall 2014 semester and included both qualitative (coaching) and quantitative (testing) data. It covered a ten (10) week period (with a maximum six weeks of coaching). The CCTST was administered at the start of the process (Pre-test) to provide a baseline measurement for each participant. The next four weeks consisted of one-on-one/in-person solution-focused coaching sessions (one skill per week) that lasted from 30-60 minutes. In the 6th week the test was administered again (Mid-test) and results compared with the baseline. All participants were given the option to continue receiving two additional weeks of coaching (covering the same four skills but with more depth) and/or continue reviewing the skills on their own. In week nine, the test was administered for a third time (Post-test), and in week ten participants were debriefed and given their results. For comparison purposes, the higher of the Mid-test and Post-test scores were used to indicate improvement.

Table 1. Research Schedule

Week 1	Weeks 2 - 5	Week 6	Weeks 7 - 8	Week 9	Week 10
Pre-test	Coaching	Mid-test	Additional Coaching/ Skill Review	Post-test	Debrief

Table 1 shows the research schedule which covering a ten-week period. It includes testing, coaching and study of each critical thinking skill.

4.1 Participant Selection

Once the Institutional Review Board application and online version of the assessment were approved, volunteers were solicited from students in the Jackson State University College of Business (and the author's Strategic Management class). No incentives were given for their participation. From the students who volunteered, twelve seniors (six males and six females) were chosen due to their

perceived “coachability”, personality traits and motivation, for improving their critical thinking and leadership skills. (Giacobbi, 2000). They were all in the early stages of their careers (working either full or part-time). The group was narrowed down based on having scored at least a 13 ‘Overall’ score on the CCTST Pre-test. Therefore, the final research group consisted of nine individuals (coachees) (three females and six males), ranging in age from 21 - 29.

4.2 Qualitative Research

After the Pre-test, students received a handout explaining each of the six core critical thinking skills and subskills. The handout can be found in Section 8 of the CCTST User Manual by Insight Assessment. However, the actual six core skills and their descriptions were taken from the APA Delphi Research Report (The American Philosophical Association, 1990). This research project focused on the first four skill areas (Interpretation, Analysis, Evaluation and Inference), with Inductive and Deductive Reasoning incorporated into Inference. In addition, the latter two skills (Explanation and Self-Regulation) were infused within the first four (i.e., each week participants were required to explain and self-regulate their actions).

Table 2. Coaching Assignments

Weeks	Core Skill	Assignments
2	Interpretation: Situation	1. Describe in detail a very important situation that you experience. 2. How did you interpret it? 3. How did you handle it?
3	Analysis: Problem	1. Describe in detail a very important problem that you faced. 2. Analyze the problem step-by-step. 3. How did you solve the problem?
4	Evaluation: Argument	1. Describe in detail (both sides) a serious argument that you had. 2. What were your reasons for being for and against each position? 3. How did the argument end?
5	Inference: Conclusion	1. Explain a conclusion you drew from a previous (or new) assignment. 2. What was your thought process, assumptions, options? 3. What were the facts to support your conclusion? What are the chances that you are right? Wrong?
	Skills 1 - 4	4. Apply questions. 5. What did you learn?

Table 2 identifies the coachees' assignments for weeks 2-5 and covers each of the first four skill areas.

Coachees were asked to study each of the critical thinking skill areas and complete an assignment prior to each coaching session. In developing the assignments, each skill was converted into an easily recognizable “experience” to reflect on, such as a “Situation”, “Problem”, “Argument”, and “Conclusion”. Each weekly assignment called for critical self-reflection (revisiting the past), journaling (written documentation) and narration (talking) about real-life experiences. Although the past (which was often problematic) served as a foundation for the coaching process, the goal was to find more rational and logical solutions that

could be applied to future “experiences”. In adhering to a standardized open-ended interview format, coachees answered five core questions (developed by the coach) and a set of reflective questions (taken from the “Question Asking Skills: A Leadership Training Tool” as found in the CCTST User Manual). Questions #1, #2, and #3 were specific to the particular skill, whereas questions #4 and #5 were general in nature and applicable to all skills. The former allowed them to revisit a previous significant life “experience”. The latter allowed for reflection on what they did versus what they probably should have done and/or will do in the future. This information served as the basis for their one-on-one coaching sessions. During the sessions, notes were taken for further analysis.

To get coachees talking, a “think aloud” interviewing technique (as described by Facione & Facione, 2007) was used. It mandates that the coach be nonjudgmental throughout the process and limits the amount of prompting. Discussions were not limited to the assignments, however. Asking follow-up questions (scaffolding) allowed for a deeper exploration of the various topics that were uncovered. At the end of the process, honest self-assessment allowed for better thinking and decision making around future life experiences.

Table 3. Critical Thinking Skill Questions

Critical Thinking Skills	Examples of Reflective Questions
Interpretation	What exactly is happening? What is the best way to characterize/categorize/classify this?
Analysis	Why do you think that? What are the arguments pro and con?
Evaluation	How strong are those arguments? Do we have all our facts right?
Inference	Given what we know so far, what can we rule out? What are some alternatives we haven't yet explored?

Adapted with permission from © 2014 User Manual for the CCTST, published by Insight Assessment.

As identified in Table 3, reflective questions were provided on each of the four critical thinking skill areas.

4.3 Quantitative Research

The CCTST is an internationally recognized critical thinking skill assessment of an individual's reflective thinking. The generic form of the test was chosen as the measurement tool for this research and use approval was granted by Insight Assessment via a one-year license. This version measured Analysis, Inference, Evaluation, Induction and Deduction. Content, construct and criterion validity have been confirmed using standard psychometric item analysis methods and item-specific protocol analyses. In addition, test retest reliability has been established. A Scale score was provided for each skill area per coachee, in addition to their Overall score (34-point) and a Percentile ranking (based on results for similar test-takers). The strength of the Overall score is further grouped as: (1) Superior: 24 or

higher; (2) Strong: 19 – 23; (3) Moderate: 13 – 18; (4) Weak: 8 – 12; and (5) Not Manifested: 0 – 7. For purposes of this research, the Overall and Percentile rankings were used.

5. RESULTS

Given the research in support of questioning techniques like coaching as a developmental tool, it was anticipated that critical thinking skills would improve. However, the magnitude of the improvements given the short timeframe was unexpected. In response to the research question, the results confirm that coaching can be used to improve critical thinking skills (and thus for leadership development).

5.1 Qualitative Research Findings

Coaching sessions focused on each of the core critical thinking skills (Interpretation/situation, Analysis/problem, Evaluation/argument, Inference/conclusion). Each coachee gave varying amounts of time and energy to the process. In addition, each came from a different place; yet their outcomes were similar (i.e., a paradigm shift). The following is a synopsis of each coachee (based on notes taken during the sessions).

Table 4. Synopsis of Coaching Sessions

Case #1	A 21 year old male business administration major with a 3.87 overall GPA. With limited writing but a lot of reflection, he was able to thoroughly explain the "experience" and articulate logical answers to questions. He demonstrated a very clear and analytical thought process with each of the assignments and recognized the importance of research prior to a response. Thus, his analyses, evaluations, interpretations, and inferences were all grounded in facts. In applying the questions, prior responses to the "experiences" were proven to be best. In the end, the process confirmed the quality of his skills.
Case #2	A 29 year old female accounting major with a 3.98 overall GPA. She came to each session well prepared, but with strong positions. Each assignment involved extensive reflection and writing, and her "experiences" dealt with significant family and coworker issues. However, she always took the position that they were wrong and she was right. In our discussions, emotions were high. The idea that her prior responses were flawed was difficult for her to accept. In some cases, she even refused to engage in the discussion and/or answer the follow-up questions. In the end, she recognized the flaws in her thinking, and even made an effort to revisit and correct some of her past responses.
Case #3	A 21 year old female finance major with a 3.4 overall GPA. She came to each session with extensive reflection and writing. However, as a strong willed individual she was convinced that her positions and logic were correct. Her "experiences" involved significant health, family and friend issues. However, in her responses to those "experiences", she was right and they were wrong, even her parents. Our discussions were robust, but in her effort to improve she did not allow her emotions to interfere with the progress that she hoped to achieve. She willingly revisited the "experiences" from a different perspective. In the end, she re-established relationships with family and friends, and offered apologies.

Case #4	<i>A 22 year old male accounting major with a 3.6 overall GPA. He is a laid back and private individual who was confident that he had a superior thought process. As a result, he did not devote a lot of time to the assignments (reflection or writing), and the "experiences" that he shared were minor and lacked depth. With much effort, he finally recognized the flaws. His reflections and writing remained weak, but he put extra effort into studying the various skill areas and the studying paid off. In the end, he became more thoughtful, and took on a different perspective.</i>
Case #5	<i>A 22 year old male business administration major with a 3.0 overall GPA. He was laid back, quiet, and lacked confidence. He completed assignments with limited reflection and writing, and his "experiences" were insignificant (but had value). After a few weeks, he realized the flaws in his thinking. More importantly, he saw that his poor decisions were costing him time, money and energy. He chose to continue with two additional weeks of coaching and study. As a result, his skills and confidence improved, and he started applying his learning to other areas for the benefit of others.</i>
Case #6	<i>A 21 year old male accounting major with a 3.5 overall GPA. Surrounded by professionals, he understood the value of good decision making. Thus, he devoted time to each assignment (writing and reflection), and was eager to engage in each discussion. His "experiences" were insignificant (but had value). With work, he recognized the flaws in his thinking, and became more determined than ever to improve. He chose to continue the coaching and study. In the end, his critical thinking skills and decision making had greatly improved, and he was extremely appreciative for the learning opportunity.</i>
Case #7	<i>A 24 year old male finance major with a 2.1 overall GPA. Smart but with a low GPA, he came to the process understanding that he needed something 'extra' to improve his chances of getting a good job. He completed the assignments with good reflection and writing. Although his "experiences" were insignificant, they still allowed for an examination of this thought process. It took a while but he was eventually able to identify the flaws on his own. He chose to continue coaching and study. In the end, his skills had improved and he continued to assess his everyday "experiences" but in a different way.</i>
Case #8	<i>A 24 year old male accounting major with a 2.5 overall GPA. A quiet individual who was eager to participate in the process for its potential value in his current job. Time did not allow for extensive reflection and writing but he came with good "experiences" that allowed for learning. Through our discussions, he immediately recognized the flaws in his thinking and immediately applied what he learned to his job. Even though the scores did not reflect it, his confidence, new perspective and recognition by his boss (promotion and raise) was a testimony to the improvements that he had made.</i>
Case #9	<i>A 28 year old female business administration major with 3.1 overall GPA. A quiet, private and mature individual, she came to the process with strong convictions that had developed over many years. Time did not allow for much reflection or writing, and her "experiences" were weak. With much effort and to her surprise, discussions identified flaws in her decision making process. The more we talked, the more she realized that much of her thinking was illogical and lacked a factual basis. In the end, she was started applying these new skills to her relationship with her family and coworkers.</i>

Table 4 gives demographics for each coachee and provides an overview of their coaching experience.

.5.2 Quantitative Research Findings

The following are the scores (Overall and Percentile) for each of the nine coachees at the Pre, Mid and Post point. As a summary, in comparison to their Pre-test (baseline), Overall and Percentile scores, seven of the nine coachees showed an increase in their critical thinking skills. More specifically,

- Five of the nine showed an increase by week 6 (Mid).
- The remaining two showed an increase by week 9 (Post).
- One who showed an increase by week 6 (Mid) showed an additional increase by week 9 (Post).

As to the strength of the Overall scores, the findings were also significant. Of those showing improvement (comparing the baseline to the highest point), five (#2, #4, #5, #6, #7) went from Moderate to Strong.

Table 5. Results from CCTST

Participant	Pre-Test		Mid-Test		Post-Test	
	Overall	Percentile	Overall	Percentile	Overall	Percentile
1	26	94	27 (+1)	95 (+1)	NA	NA
2	16	47	20 (+4)	72 (+25)	NA	NA
3	15	39	18 (+3)	60 (+21)	NA	NA
4	17	53	19 (+2)	66 (+13)	NA	NA
5	13	26	16 (+3)	47 (+21)	19 (+3)	66 (+19)
6	18	60	18 (n/c)	60 (n/c)	20 (+2)	72 (+12)
7	18	60	18 (n/c)	60 (n/c)	19 (+1)	66 (+6)
8	13	26	11 (-2)	14 (-12)	11 (-2)	14 (-12)
9	14	33	12 (-2)	19 (-14)	11 (-3)	14 (-19)

Using the CCTST, Table 5 provides the overall scores (and changes) and percentile ranking for each participant at the pre, mid, and post period.

6. DISCUSSION

Results show that coaching can improve critical thinking skills, thus facilitating the development of future leaders. In observation of the qualitative and quantitative data:

1. Participant #1 is a rare individual scoring in the 94th Percentile on the Pre-test (yet moving to the 95th Percentile by the Mid-point). This ranking was validated during the sessions by the logic, thoroughness, and analytical thinking involved in the responses.

2. Participants #2 and #3 showed a sincere determination to improve their skills by sharing highly personal and significant life “experiences” (like major issues involving family and friends), engaging in extensive journaling and deep reflection, and spending time studying each skill area. During the self-assessment phase, they recognized flaws in their thought process and took steps to improve (self-correction), resulting in an increase in their Percentile scores from 47 to 72 (#2) and 39 to 60 (#3) by the Mid-point.
3. Participants #4, #5, #6, and #7 viewed the process with interest but less excitement, using more general “experiences” and minimal journaling. Additional time was dedicated to studying the skill areas, and during the self-assessment phase, flaws were recognized and corrections made, resulting in a movement of the Percentile scores from the Pre-test to the Mid-point or Post-point from 53 to 66 (#4), 26 to 66 (#5), 60 to 72 (#6) and 60 to 66 (#7).

Interestingly, although tests results did not show an increase for all participants, self-assessments, supported by their testimonials, indicated that the process was beneficial and they saw improvements in their critical thinking skills.

4. *“Coaching was truly invaluable and will help me handle situations for the rest of my life. I was challenged in my thought and pushed to be a better thinker.” #1*
5. *“With coaching I have a new outlook on life. Not only am I a better critical thinker, I make more positive decisions, which not only helps me but others as well.” #2*
6. *“Completing the critical thinking coaching sessions has helped me make better decisions. I am now able to properly think about all options, facts, and sides of an argument.” #3*
7. *“With this process, I felt challenged to improve. I truly saw positive changes in my mindset and the learning will be beneficial to me as I continue to improve my thinking.” #6*
8. *“I credit this training for getting a promotion to shift lead! My boss said over the last couple of weeks I have improved on thinking things through.” #8*

Given their Percentile results, a developmental plan for this group would include:

- Participant #1 (95) should be encouraged to continue using their critical thinking skills, given challenging assignments, and immediately targeted for a leadership position.
- Participants #2 (72) and #6 (72) should be encouraged to continue using their critical thinking skills and given challenging assignments in preparation for future leadership opportunities.

- Participants #3 (60), #4 (66), #5 (66), and #7 (66) should be encouraged to continue using their critical thinking skills and given challenging assignments, with continuous assistance from a coach prior to leadership consideration.

7. RECOMMENDATIONS FOR USING MODEL

7.1 Fundamentals

For success in using the C/CTSLD model for critical thinking skill and leadership development,

- Individual coaching sessions (minimum 1 hour for at least four weeks) with extensive talking, journaling, critical self-reflection and self-correction focused on significant personal and professional life "experiences".
- To reinforce gains, there should be continuous coaching, opportunities for applying the skills (deliberate practice) and iterations of the model for the formation of Dewey's "habits of mind".
- To assess improvements, follow-up evaluation/testing on the critical thinking skills.

Embedded within the process is the expertise of the coach and the coachee's personal commitment to improving their critical thinking and leadership development skills.

7.2 Expansion of the Coaching Schedule

Based on observation and evaluation, it is also recommended that the schedule be modified to allow more coaching time for individuals and groups, and take into consideration the last two core critical thinking skills. The extended C/CTSLD schedule covers a four (4) month period with three (3) months devoted to critical thinking skills (group and individual activities). Two weeks are allocated for each of the six skills and each session last at least 1 hour. During designated weeks, the definition and examples of the skills and subskills are discussed in a group format; while one-on-one individual coaching on relevant assignments takes place on alternate weeks.

Table 6. Expanded C/CTSLD Schedule

	Weeks 1, 3, 5, 7	Week 9	Weeks 10, 12	Week 14	Week 15	Week 16
Pre-Test Handout	Group Discussion Skills 1 - 4	Mid-Test	Group Discussion Skills 5 - 6	Wrap-up	Post-Test	Debrief
	Weeks 2, 4, 6, 8		Weeks 11, 13			
	Individual Coaching Skills 1 - 4		Individual Coaching Skills 5 - 6			

Table 6 provides a revised coaching schedule, which includes all 6 skill areas, and covers a sixteen week period, with both individual and group coaching sessions.

Table 7. Additional Assignments

Weeks	Core Skill	Assignments
10-11	Explanation: Justification	1. Describe in detail a very important action or behavior. 2. What were your considerations and arguments? 3. How did you justify your decision?
12-13	Self-Regulation: Correction	1. Describe in detail an experience where you modified your action or behavior. 2. What was your thought process or reasoning? 3. What changes did you make or should you have made as a result thereof?

Table 7 adds assignments for the two additional skill areas, and covers weeks 10-13.

Table 8. Additional Critical Thinking Skill Questions

Critical Thinking Skills	Examples of Reflective Questions
Explanation	1. Can you tell us how you conducted that analysis? 2. Why do you think that (was the right answer/was the solution)?
Self-Regulation	1. How good is your evidence? 2. How good was your methodology, and how well did you follow it?

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Table 8 adds the corresponding reflective questions for the two addition skill areas (covering weeks 10-13).

7. CONCLUSIONS, LIMITATIONS AND FUTURE RESEARCH

Critical thinking has been documented as a core leadership development competency. However, employees come to the workplace lacking critical thinking skills. The long-term effect of this deficiency to the employee can be measured both by a lack of promotional opportunities and future salary increases. More importantly, the effect on the U.S. workplace has been and will continue to be problematic. Therefore, employers must implement programs that will help

employees overcome this deficiency. In essence, implementing the C/CTSLD Model can have positive outcomes for the employee, the employer and the U.S. workplace as a whole, and thus is worth considering.

The C/CTSLD Model would be ideal for incorporation into a company's management development program. Another application could be for leadership development programs like those sponsored by the U.S. Chamber of Commerce, The Conference Board, Center for Creative Leadership and the National Urban Fellows. Taking a larger societal view, the model could be adapted for use with at-risk youths and first-time offenders to improve their thinking and decision making processes. Of note, it is highly recommended that an assessment tool be used to measure improvements and confirm the need for additional support.

Critical thinking skills are vital for the success of every employee, however, using the C/CTSLD Model in large organizations may be cost prohibited. Although it requires employee and employer time, online technology (Skype for individual sessions, WebEx and GoToMeeting for group sessions) can be used to reduce the costs. In addition, it requires the use of a professional coach and/or a manager with expertise in critical thinking content knowledge and solution-focused coaching techniques. However, with training and commitment, managers can learn and successfully apply both. In addition, a workbook has been developed for use by a coach (or trained manager), and the possibility exists for developing a web-based version. For leadership development, the model could be applied 'as is' once a Pre-test is administered and a minimum score is established (to select high potential individuals, i.e., future leaders).

Typically small sample sizes are suitable for qualitative research but the strength of this model would be further validated using a larger sample. In addition, "habits of mind" could not be established due to the short evaluation period. Ideally, a longitudinal study is needed that will allow for periodic testing/evaluation for skill improvement for at least a year. The initial coaching schedule focused on the first four skills. The inclusion of the last two skills may have resulted in even greater improvements. Therefore, future research warrants the use of an expanded coaching schedule (for individual and group participation) and the inclusion of the last two skills. In addition, the use of a larger research sample and follow-up testing/evaluation for a year to validate the formation of "habits of mind" is needed.

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THE PRICE IS RIGHT: A SOCIONOMIC INQUIRY INTO TRADITIONAL VALUATION MODELS

Dennis Elam*

delam@tamusa.tamus.edu

Richard Green

Texas A & M University

San Antonio, TX

rgreen@tamusa.tamus.edu

*Corresponding Author

ABSTRACT

This paper addresses the apparent failure gap between traditional stock or equity valuation models and the resulting prices attributed to stocks with little to no earnings. Such models have included discounted cash flow, residual income, price earnings models, and net present value techniques. The failure of such modeling to explain high valuations suggests a completely different dynamic is involved. The paper will examine the predictive social science in the developing field of socionomics. The paper examines the price performance of Amazon since its IPO. The dichotomy between the lack of cash flow and earnings versus the continued price advance of the stock is better explained by the socionomic model. In that regard, this paper builds on the financial/economic dichotomy explained by Prechter and Parker in 2007.

KEYWORDS: Valuation model, Socioeconomic, pricing, cash flow, Amazon

DIFFICULTY OF TRADITIONAL PRICING METHODS

Traditional pricing methods have used various methods including discounting of expected cash flows, economic value added, the production of income above a required rate of return, a ratio of the stock price to the earnings of the firm, or horizontal analysis with similar firms in the same industry.

Hamadi and Hamadeh frame the problem precisely noting 'recently determining firms' value has become more problematic (Hamadi, 2012). The two researchers further note that ratios such as price earnings, return on Equity (ROE) or Return on Assets (ROA) mix operating performance with financial structure, making peer group analysis or trend analysis less focused (Hamadi, 2012). The authors further note that a paper by Keen points out that earnings per share (EPS) tells nothing about the cost of generating those profits (Keen, 1999).

No remark about valuation better illustrates the purpose of this paper than a comment from the well-regarded New York University Stern School of Business. In their own words:

There are those disingenuous enough to argue that value is in the eye of the beholder, and that any price can be justified if there are other investors willing to pay that price. That is patently absurd. We buy financial assets for the cash flows we expect to receive from them. Perceptions of value have to be backed up by reality. Valuation models attempt to relate value to the level of, uncertainty about and expected growth in these cash flows (Stern, n.d.).

It is precisely that conventional wisdom this paper intends to challenge. The entire dot.com mania was in contravention of assumed cash flows. The paper later examines the disconnect between such conventional modeling which warned again and again of over valuation regarding Amazon (AMZN). Yet AMZN is one of the best performing stocks since its IPO in 1997 returning some 45x of the original investment while violating near every rule of the Stern School of analysis.

Cican (2013) echoes these problems noting discounted cash flow models, which, moreover, are very complicated and take into account a lot of indicators. Cican (2013) continues noting that "since the 1990s, the traditional return measures are considered to be insufficient to express the economic reality. "

Entwistle (2015) notes that in its most basic form the P/E ratio is constructed as a stock price divided by earnings per shares. In practice however there are a number of different price and earnings variables that are used when constructing the P/E ratios. That analysis allows for nine variables each for both in stock price and earnings. Six variations of price-earnings ratio combinations are presented. In summary. The construction of P/E ratios in practice demonstrate that companies do

not have a single standard P/E value (Entwistle, 2015).

Net Income Available to Common Shareholders

Figure 1

Year	2010	2011	2012	2013	2014
Net Inc	1.15 B	631 M	- 39 M	274 M	-241 M
EPS Basic	2.58	1.39	- .09	.60	-.52

Source: Entwistle 2015

Figure 1 illustrates the difficulty of using AMZN's EPS in a discounted earnings or cash model. There is not a consistent trend.

This paper builds on the observations by Prechter and Parker that the data suggest "the stock market is blissfully unaware of the dividend discount model, earnings discount model, corporate liquidation value, and the Fed's relative-yield pricing model" (Prechter, 2007).

The better explanation for a linkage between the non-trending income in Figure 1 versus a continued increase in AMZN share valuation is again provided by Prechter. "Because the majority rules herds, financial market trends appear to be based on little more than investors' mood. Social mood, the postulate, is the net mood of the populace, shared through the herding impulses" (Prechter, 2007).

The paper will refer multiple times to Figure 2. But clearly price rose faster and faster as more investors herded into the AMZN camp.

Figure 2



Source: Stockcharts.com

The price range for AMZN from 2001-2002 was between \$6 and \$24. That is an un-weighted average price of \$15. The last two months of 2015 AMZN traded around \$675. Therefore an investor who bought at \$15 would have recorded a return of $675/15 = 45x$. This far exceeds the return on the Dow Industrials which averaged around 9,000 in 2001-2002. That return would be a mere double as $18,000/9,000 = 2$.

ANALYST DISBELIEF FROM THEN TO NOW

Back in 1998 when AMZN had just gone public, Scism and Sandler quoted Merrill Lynch Internet analyst Jonathan as follows. "AMZN is not a technology company, it is not a software company, and should not enjoy a valuation remotely that is even remotely related" (Scism, 1998). The authors further note that AMZN's then \$4.64 billion market value was equal to the combined value then of Barnes and Noble and Borders Group. That value was "completely disconnected from AMZN's operating prospects" (Scism, 1998). Ironically, Borders foretold the future ceasing business altogether in 2011 (Shanburn, 2011).

By 2012, the stock had climbed to \$150 but the disbelief continued. A writer noted AMZN sported a 76 times price earnings ratio. At the time Wal-Mart traded for 11, Apple at 11.4 and Netflix at 38 times projected 2013 earnings (Jakab, 2012).

Disbelief marked another new high in November, 2012. A *Seeking Alpha* article notes that the company reported a September quarter loss of $-\$.23$ cents per share versus an expect loss of only $-\$.07$ (Dierking, 2012). The writer indignantly noted that "the fact the stock traded significantly higher following a revenue miss like this is almost unexplainable...you can justify higher ratios if the company is experiencing explosive growth but for a company the size of AMZN" (Dierking, 2012). Rather it is just that sort of reaction that this paper seeks to explain in a later section.

Dierking's table is presented as Figure 3 below and clearly AMZN is out of the normal ratio-ballpark so to speak. Revenue is 12.4% of Wal-Mart but market capitalization is 41% of Wal-Mart. The Price Earnings to Growth (PEG) ratio is not a misprint. At 158 it is 46 times that of EBay. Operating and Profit margins are miniscule compared to the other firms.

November 2012 Valuation Comparison (Millions)

Figure 3

Firm	AMZN	WMT	Target	Costco	Ebay
Revenue	57,260	\$460,710	71,340	99,140	13,460
Mkt Cap	105,490	252,180	41,750	42,560	62,450
P/E	130.84	13.89	12.96	19.61	17.68
PEG	158.	3.6	2.62	3.44	3.14
Opt Mgn	.93%	5.94%	7.43%	2.78%	20.65%
Pft Mgn	.07%	3.53%	4.12%	1.72%	28.52%
Price/Bk	13.97	3.6	2.62	3.44	3.14

Source: Seeking Alpha, November 1, 2012

Disbelief continued into 2013 with Forbes noting “AMZN is a competitive, low margin business that cannot justify the profit growth implied in its valuations... the question today is about future margins and whether they will ever be high enough to justify the current stock price” (Trainer,2013). The author complained that until AMZN has exclusive access to content for which people are willing to pay a premium, the strategy will never yield as high margins as the company must achieve to satisfy investors. (Trainer, 2013)

That was in May, 2013. By December, 2013 another writer complained of the “nosebleed 145 P/E ratio, an expectation that even Jeff Bezos and Co. will have a tough time living up to. He concluded noting AMZN did not post a penny of profit in fiscal 2012” (Reeves, 2013).

This section of the paper ends with another look at Spencer Jakab's take on the firm. Then analysts were expecting a third quarter loss of 75 cents. Ahead of the Tape sternly warned “investors should avoid a fourth consecutive tumble following the earnings report” (Jakab, 2014). The article noted that “Wal-Mart, Barnes and Noble, Apple, Costco, and Rackspace sported trailing multiples of debt adjusted market value to earnings before interest, taxes, depreciation, and amortization of between seven and 13.5 times that measure, AMZN is 220% more expensive than the group even though its revenue is 28% cheaper” (Jakab, 2014).

At the time of that article, AMZN had dropped from \$400 to \$300. But in 2015, it would attain parabolic status racing to \$700 proving previous negative pundits cited here as wrong on the public valuation of AMZN.

January 2015 Valuation Table

Figure 4

Firm	AMZN	WMT	TGT	Costco	E Bay
Revenue	100.59 B	484.03 B	73.91 B	116.55 B	17.7 B
Mkt Cap	284.56 B	203.45	43.97	66.89	30.92
P/E	108.4	15.2	13.81	24.45	13.07
PEG	5.35	11.61	1.45	3.38	1.83
Opt Mgn	1.7%	5.25%	7.06%	3.11%	19.21%
Prof Mgn	.33%	3.12%	-.95%	2.03%	12.83%
Price/Bk	22.94	2.62	3.45	6.28	4.76

Source: Finance.yahoo.com, n.d.

Some of the market expectations for AMZN are coming true but on several measures there is still a distinct disconnect. Revenue is 21% of WMT but market capitalization is \$80 billion greater. The PEG ratio seems more in line with the industry but is still higher than all but WMT. The profit margin is barely positive. Rounding it out, investors are willing to pay \$22.94 for one dollar of AMZN earnings ten times what the market pays for Wal-Mart or more than triple Costco.

In retrospect, it is clear that analysts erred in thinking AMZN was at first just a book-seller, or later, just another online retailer. Indeed AMZN has been re-defining the shopping experience in the same way that Sears did by creating catalog shopping in the 1890s. Indeed, is there really much difference in the two, though separated by a century of time? From this standpoint, AMZN has been more than a company but an engine of change.

The next section of the paper presents a coherent explanation for such valuations, which have clearly not been provided by traditional analytic models.

FINANCIAL VERSUS ECONOMIC VALUATION

The ratios presented in Figures 3 and 4 are evidence of just that, demonstrating that the market has a far different idea of AMZN than its competitors. Prechter (2007) makes the distinction that “an economic market is one for utilitarian goods and services while financial markets are those for investments and speculations. In the economic market place, supply and demand govern price”. The demand for products like laptop- computers has seen prices fall from \$2,000 to \$200 in the last fifteen years. Supply responds to demand. But in the market of financial valuation, there is no such balance (Prechter, 2007).

This is why investors could and did put a 130 P/E on AMZN in 2012. Figure 2 shows that in 2015 AMZN finally assumed a parabolic rise, the sort of move only generated by a geometric rather than arithmetic dynamic. This is the result of

herding in the markets. As Prechter put it, "the general investing population commits more money to the market as it rises and less as it falls, a behavior opposite from that which would generate profits" (Prechter, 2001).

"Humans apply reason in contexts of certainty and pre-rational herding impulse in contexts of uncertainty. When uncertainty about others' valuation applies, people herd and markets are dynamic" (Prechter, 2007).

A SOCIONOMIC EXPLANATION OF FINANCIAL MARKET PRICING

Casti (2010) notes that John Maynard Keynes spoke of "animal spirits that impel people to act outside the scope of deductive, rational thought-action by feeling and belief, not by calculation".

This leads to the socionomic view of causality. This view is opposite the conventional wisdom that humans are influenced by outside events. Rather, social mood motivates social action, not the other way around (Prechter, 2009). The evidence of this is in the long term pricing of AMZN by the market, regardless of the persistent belief of analysts cited earlier in this paper. Moreover, social mood is endogenously regulated, not prompted by outside forces (Socionomics, n.d.). The point here is that no matter how often analysts warned of AMZN over valuation, investors ignored the advice and bought AMZN shares at ever higher prices.

Changes in valuation over time are not linear. Figure 2 displays a suggested five Elliott waves that AMZN has experienced since going public. Social Mood is patterned according to this robust fractal called the Elliott Wave Model (Prechter, 2009).

Figure 5 demonstrates several of the socionomic principles. It appears Wave 4 ended in January 2015. Since then the greatest move in the stock price has occurred, the \$400 rise from \$300 to \$700 (\$ 696.44 actually). This demonstrates another dynamic of socionomics in application. Extreme expressions of social mood tend to occur near the end of a trend (Prechter, 2009). Investors took 18 years (1997-2015) to raise the stock price \$300. That shows mood was internally or endogenously generated in spite of numerous warnings to the contrary. Then in the last year, investors more than doubled the price in final rush to buy when the stock was priced higher than ever. That is the true herding instinct.

The blue arrow in Figure 5 highlights the first week of trading in 2016. This further illustrates the dictum that mood is indeed endogenously generated. After driving the price 2.33x higher in one year, the mood immediately reversed. Price dropped from \$699 to 607.05 (13.2%) in seven days of trading. Have the fortunes of AMZN changed so quickly? Perhaps not but the social mood regarding AMZN certainly has. If mood did not change independent of events, markets would continue unabated in one direction or the other with no interruptions. But markets

do turn on the proverbial dime as Figure 5 illustrates.

AMZN Stock Price 2014-2015 Weekly

Figure 5



CONCLUSION AND NEED FOR FURTHER RESEARCH

Existing financial models are inadequate to explain super valuations such as existed for years for companies like AMZN. Yet as with Adam Smith's Magical Hand, the market sees success and trend change well before the financial ratios give any indication. More research needs to be done to indicate identifiers of changes in mood for a better predictive model. Socionomics does however provide an answer to Stern's suggestions that buying in the absence of expected cash flow is nonsense. In fact investors do act in that manner and in the case of AMZN were well rewarded.

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LEADERSHIP: USING CASE STUDIES TO INCREASE LEARNING AND INTEREST

Jeff Dyson

jeff.dyson@lamar.edu

Lamar University
Beaumont, TX 77710, USA

Alicen Flosi*

alicen.flosi@lamar.edu

Lamar University
Beaumont, TX 77710, USA

Sharmin Jahan

sharmin.jahan02@gmail.com

Lamar University
Beaumont, TX 77710, USA

*Corresponding author

ABSTRACT

Case studies offer thought-provoking ways to present students with decision-making practice and real-world situations. This project utilizes a series of retail business cases that focus on leadership and entrepreneurial behavior in response to challenge and adversity. Each case examines a family's path to business success despite overwhelming personal and professional odds. Secondary issues include strategies and tactics that were employed to sustain the business in response to severely declining market conditions and changes in the competitive landscape.

The case studies are based on a Southeast Texas business located in the communities Lamar University serves. Lamar is fortunate to have one of the former owners of the business as a current faculty member. He is able to present the cases to the students and follow-up discussion with additional real-world stories.

Students are provided a series of dilemmas requiring them to develop, analyze, and prioritize the business owner's alternatives. The cases require students to consider numerous personal, professional, and family business dynamics that come into play and to recommend courses of action.

KEYWORDS: Leadership, Case studies, Learning, entrepreneurial, strategies

ORIGINATION

Many senior faculty are retiring or will soon retire and there are currently not enough business PhDs to fill the positions available. Also, there is a significant increase in the number of students seeking degrees in business. (AACSB International, 2011) As a result, business schools are employing an increasing number of professionally qualified faculty, otherwise known as Instructional Practitioners. Instructional Practitioners face a number of challenges as they move from the corporate office to the classroom to effectively teach the next generation of business leaders. One of these challenges is creating a structured learning environment that is engaging and motivating. People with professional experience often shy away from teaching theory from academic textbooks. Instructional Practitioners need tools to allow them to teach from the perspective of practical experience. Rather than tell unstructured war stories, the use of cases provide a framework for student preparation, class discussion, and assessment.

The MBA program at Lamar University offers courses in leadership and organizational development. The College of Business partnered with Franklin Covey, one of the leading executive training companies in the world, to deliver world-class corporate training content to Lamar's MBA students for graduate academic credit. Franklin Covey certified Lamar professors to teach its content. The faculty developed the structure for the content to be delivered for academic credit. MGMT 5312 is a course in the MBA curriculum titled "Personal Leadership". The course is based the best-selling management book *7 Habits of Highly Effective People* by Stephen R. Covey. The book presents a principle-centered approach to management.

MGMT 5312 classroom sessions are workshop-based. The content by nature generates a great deal of discussion. A traditional academic text is not available. The instructor found that the workshop had limitations. Discussions did not provide enough rigor to challenge the students to think about how the content is applied. The case study approach challenges learners to actively construct understanding that makes sense to them, as opposed to the traditional passive learning. Lectures aren't truly meaningful until the learner can apply the content to issues." (Ellett, 2007). Another challenge was assessment. The material was not created for a class granting academic credit. The instructor needed to develop components for assessing content mastery.

Using true stories from his family business, the instructor developed case studies that aligned with the course material. Case study research, according to Soy (1997) "excels at bringing us to an understanding of a complex issue or object and can extend experience or add strength to what is already known through previous research." Sociologists have long used this approach under the heading "qualitative research" (Feagin et al., 1991) "Like many qualitative methods, a case tells a story that in turn can be used in the classroom as a basis for learning (Broder et al, 2003) By this we mean that the student is expected to learn what has

happened historically (Swanson and Morrison, 2009) Because a case tells a story it can be used to teach a historical narrative. An application of cases described in Patten and Swanson (2003) is to enable students to acquire a specific skill. "The ability to think clearly and communicate convincingly has always been an important skill for managers and leaders. It is now arguably more important." (Ellett, 2007). Another instructional application focuses on the art of decision making. How does one identify problems, what needs to be solved? How does one formulate possible courses of action? What criteria can be used in evaluating solutions or courses of action? (Swanson and Morrison 2009). There is, in addition, an important benefit that appears to accrue from using the case study method terms of "Deep Structure Learning" (Patten and Swanson 2003, McKibben and Swanson and 1997), which is aimed at the development of critical thinking skills.

The cases for MGMT 5312 were designed for students to read and reflect on how the case protagonist's challenges relate to the course material. The instructor developed an assessment rubric and the students were required to complete reflective writing assignments. The case studies were a success and received a number of positive comments from students.

STORIES

The following case, M&D Supply Case A "Stuff Happens", is the first in the series of three cases. Following the case are the discussion questions used to test student's decision-making and leadership skills. The rubric used to evaluate the responses is included in Appendix A.

M&D SUPPLY CASE A "STUFF HAPPENS"

CASE DESCRIPTION

A devastating fire and terminal cancer! Sometimes key decisions are brought on by stochastic circumstances. In 2010, M&D Supply is one of the premier hardware and industrial supply stores in Southeast Texas with four outlets. During its forty-three years, the company has succeeded against heavy odds. These include changes in the market, recessionary trends, competition from national chains and personal tragedies.

A series of case studies will highlight the entrepreneurial spirit and business acumen that has enabled M&D Supply to overcome its challenges. M&D Supply case "A" focuses on entrepreneurial behavior in response to challenge and adversity. It examines a family's path to business success despite overwhelming personal and professional odds.

CASE SYNOPSIS

Jack Dyson moved to Southeast Texas in 1955 to partner with venture

capitalists G.F. Mitchell and E. W. McCown. Mitchell and McCown owned numerous businesses related to the Southeast Texas agricultural industry, including farm production, aerial seeding, and fertilizer production and distribution. The two desired to own a farm machinery company and were seeking a partner who could operate the business. They partnered with Jack and opened Farm Machinery Company. The business operated successfully and was sold soon after G.F. Mitchell died. Building on their 10 year partnership, Jack Dyson, Mary Mitchell (G.F.'s widow) and E. W. McCown decided to incorporate M&D Supply.

M&D Supply's business-to-business concept targeted farmers and ranchers. Secondary markets included consumers with large properties and institutions whose responsibilities included maintaining large tracts of land. The store's product mix included maintenance, repair and operations supplies necessary to sustain agricultural, beef, and other farm production activities.

The Farm supply business in Southeast Texas was segmented. National chains like Sears Roebuck, White's, and Western Auto and independent operations such as True Value Hardware offered a limited number of agricultural products and a low level of service. Dyson and his partners were confident their product mix, experienced staff, and familiarity with customers offered a value proposition that yielded sustainable competitive advantage.

The store turned a profit during the first two years. However, by 1969, a decline in the region's agricultural sector began a sustained trend of diminishing business conditions that put farmers and ranchers out of business. M&D Supply's financial performance reflected shrinking numbers in its target customer sector, necessitating that Dyson consider change.

Assignment Questions:

Put yourself in Jack's place and consider habits 1, 2 and 3 related to private victory.

1. Your body has cancer, but what do you have? Consider the four human endowments. Limit your response to one page.
2. How can you use the first three habits to elevate your thinking?
3. What is in your circle of influence? Circle of concern? How can you enlarge one and shrink the other? Limit your response to two pages.

IMPLEMENTATION

Cases can have a number of applications. Patten and Swanson (2003) identify three distinct applications: (1) as an historical narrative (2) as a focal point for acquiring specific skills, or (3) to build decision making skills.

Ronald (2005) found that teams of students who have been exposed to real-world experiences learn more quickly and are able to produce deliverables in less time than is normally the case with a typical curriculum.

SUCCESS OF THE PROJECT

Students view case-based courses that incorporate deep structure learning more positively than courses not designed using this approach. Part of this reason may be that the deep structure learning approach naturally accommodates other features associated with the case studies method – the development of critical thinking skills, the use of real world problems, the emphasis of concepts over mechanics, witting and presentation skills, active cooperative learning and the “worthwhileness” of a course (Patten and Swanson 2003; McKibben and Swanson 1999)

Positive comments in the course evaluations for MGMT 5312 support the research:

- He was funny and he has great stories!
- He has opened his life up so we can analyze and learn from it.
- Real world examples of M&D challenges and how the material we learned about applies to that situation.
- He shares his own personal failures so we can learn from them.
- Professor Dyson has an extensive amount of business experience and knowledge that was used to help articulate the 7 habits in an effective way.
- The class involved very personal case studies that were very informative.
- Very structured and motivating.
- Passionate about the material, makes the course material engaging and relates personally to it.
- He brings real business and life decisions into the college of business.
- In my opinion, books are great but once you bring in real world experiences you enhance the learning experience greatly.
- Personal stories enhance the class.
- He is willing to share personal experiences and makes learning this material enjoyable.

- Real life examples drive the points home with subject matter.
- Subject matter expert blending the academic with business world.
- Mr. Dyson showed passion in his teachings, taught by his life examples which made it very interesting.
- Brings his real-life experiences offer a perspective of the material that is hard to teach in a classroom.
- Was able to relate practical examples to key points.
- He told us how the 7 Habits applies to his life and that made it easier to apply them to mine.
- I loved the case studies and real world examples.

AREAS FOR IMPROVEMENT

The cases could be modified into discussion cases for courses that require written papers or team projects. The courses could also include case studies of unsuccessful business models to allow for a comparison of methods.

APPLICATIONS AT OTHER UNIVERSITIES: FINDING STORIES

The Association to Advance Collegiate Schools of Business (AACSB) focuses on continuous quality improvement in management education through engagement, innovation and impact. AACSB business schools are in the process of defining them. The Lamar University College of Business views engagement as building partnerships among University students, faculty, staff, alumni, and the business, governmental, and civic communities to advance (1) teaching and learning (2) scholarly endeavors, and (3) service. The College views innovation in a broad context that includes new ideas, some radical, as well as incremental changes to existing programs and structures. Faculty and students are invited to take risks in adapting to new markets or utilizing new or different techniques and approaches. The Lamar University College of Business Community has a broad and diverse range of talents and contributions that makes it a vibrant school that has a significant impact on stakeholders that is greater than the sum of individual efforts. Being mission-driven is essential. In addition, impact is measured in alignment with the mission. The college seeks to make a difference in the intellectual capabilities and professional competencies developed in our students, with our contributions to scholarship and professional practice, and in the communities we serve. The AACSB mandate for continuous improvement makes case studies a wise choice

for business faculty.

Interested faculty should start by working with a Small Business Development Center or Chamber of Commerce. Many AACSB accredited business schools have close ties to Small Business Development Centers and Chambers of Commerce. Both have members or business clients whose stories can make rich case studies. A case study engagement provides an opportunity for the business school to work in partnership with a company for the benefit of both and the region they serve. Working in partnership with business can help the college align with the AACSB standard for impact. In addition, the proximity of the business to the university allows the faculty member an opportunity to bring the protagonists to class and present the case live. Teaching live cases can help the college align with the AACSB standard for innovation.

CONCLUDING REMARKS

As can be seen from the perspective of the instructor and the students, there are particular features of the case study method that are appealing. A major feature is that the case studies support using “a real-world” scenario. Swanson and Morrison (2009) concluded that: “Besides acquiring skills, the fact that cases can be used to illustrate and understand decision making, means that case studies can be used to promote Deep structure Learning, a learning outcome we have advocated elsewhere. “

APPENDIX A

Rubric: Case Discussion

CATEGORY	Exemplary	Acceptable	Unacceptable	Points
Identification of Topic	Information about topic is complete, focused, specific (not too broad or rambling) and well stated	Some information is provided and well stated	Limited information is provided	
	18-20 points	14-17 points	0-1 points	
Identification of Related Principles and / or Habit(s)	Clear and detailed identification of Principles / Habit(s)	Some identification Principles / Habit(s)	No or incomplete identification of relevant factors	
	9-10 points	8-9 points	0-7 points	
Analysis of Related Principles and / or Habits	Clear, specific, accurate and detailed analysis of impact of related factors	Some analysis of impact of related factors. May have some inaccuracies in analysis	No or erroneous analysis of impact of related issues	
	9-10 points	8-9 points	0-7 points	
Application of Analysis of Related Principles and / or Habits	Paper demonstrates serious reflection and spirited opinions. Arguments are supported by course content.	Paper lacks serious reflection or spirited opinion	Paper does not demonstrate a serious attempt to do the assignment	
	36-40 points	28-35 points	0-24 points	

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SECURITY IN MOBILE ENVIRONMENTS (A TEACHING MODULE)

Lila Ghemri*

Texas Southern University

Houston, TX 77004

Ghemri_lx@tsu.edu

Shengli Yuan

University of Houston-Downtown

Houston, TX 77002

YuanS@uhd.edu

*Corresponding author

ABSTRACT

The number and usage of mobile devices have grown exponentially these last few years, so much so that there are bound to become the dominant platform to access the internet, social and entertainment media. This is particularly true for young people who use their mobile devices from working on their homework, to accessing their financial data or their social network of friends and acquaintances. This surge in mobile devices and mobile software use has also attracted the interest of hackers who have turned their attention to designing or reformatted malware and spyware specifically to infect mobile environments. Google Android is the most common and widely used mobile platform with 87% share of the global smartphone market. Sadly it also holds the top position in terms of malware designed to attack the Android platform with 97%. In this paper, we will talk about the way security principles and guidelines have evolved with mobile environments and the vulnerabilities and challenges mobile devices and mobile applications present. We will also discuss the most common security threats and exploits in these environments and their targets. Finally we will present a set of guidelines that both administrators and users of mobile devices and mobile applications should adopt to preserve the security and integrity of their systems.

KEYWORDS: Modular Teaching, Mobile environments, Privacy, Security.

INTRODUCTION

Mobile devices have seen a surge in both interest and availability in the last few years. Indeed the number of mobile users has increased by 41% from 2010 to 2015 and amount to 5.2 billion people that is about 73% of the world population and for the first time, design and use of mobile media has surpassed design of desktop applications with almost 300 million apps downloaded in 2015 alone. In the mobile environment, Google Android and Apple iOS have the lion share of the market with a little more than 94% of mobile phones running one of these mobile OS (Gigagom, 2015).

Additionally mobile apps usage increased by 76% in 2014 and recent reports have shown that people are increasingly using apps for financial transactions either shopping, checking their bank or credit cards accounts or making financial decisions using their mobile devices; the numbers show that iOS, sessions related to shopping apps increased by 174% in 2014, while on Android, the same sessions were up by 220% (Flurry 2014).

MOTIVATION

While the use of mobile devices is spiraling up, this situation has also drawn the attention of hackers and mal intentioned programmers who are now devoting their efforts to designing malware for mobile environments. There was a notable 136% growth in adware to 410,000 apps between 2013 and 2014. But the cyber attacks are also becoming more sophisticated and dangerous, giving attackers access to personal information such as contacts, or financial information which can be used to launch phishing attacks. (Meeker, 2015). Investment in technology to prevent security risks has not been accompanied with a similar growth in skilled labor within the field, so much so that 30% of organizations complain of lack of experts in the topics of security analytics and mobile security.

The purpose of this paper is to present three teaching modules that aim at alleviating this issue by presenting material related to mobile environments security. The material is organized into independent modules that can be used by an instructor to introduce the topic to his/her students. The modules have been designed so that they can be used off-the-shelf, without requiring much customization on the part of the instructor. We believe that the modular approach will encourage an easy adoption by instructors. The next section will discuss the characteristics of modular teaching and how suited it is to our work. The following sections will introduce in details each of the module in terms of coverage and topics. We will then conclude.

MODULAR TEACHING

In computing related curricula, such as MIS, CS and SE, there is an increasing competition over topics to be included in a curriculum. Indeed, with the advent of

the Internet and its attending subjects such as Web programming, Networking, Mobile app programming, etc..., there is a need to offer students courses on these topics so as to prepare them for a competitive job market and afford them better opportunities once they graduate. On the other hand, many IT related programs aim at reducing the number of credit hours so as to attract a maximum number of students into their program and lure them with fewer credit hours to graduation. Consequently, it is becoming apparent that students will have very limited exposure, both in time and depth, to a number of subjects. This is not necessarily detrimental to the student if one subscribes to the idea that some exposure is better than none, and moreover this could help students acquire a life long, independent learning mindset if they are to be successful in an IT career in which practitioners have to re-invent themselves every few years to keep up with the advances in the field. In our approach, we believe that Modular teaching can present a viable solution to this situation.

Modular teaching provides a framework in which new skills can be introduced with little time commitment on the part of the student and the instructor alike. Modular teaching allows teachers whose expertise is in a topic and wish to experience teaching in a different but related area in a short term rather than for a whole semester. The approach is also ideal for introducing subjects that are important to know but do not require a whole quarter or semester, or a piece of knowledge that could fit into many subjects.

They provide flexibility in planning teaching teams, teachers can elect to pick one or more modules depending on their need and time availability.

(Reference) stipulates that to be successful, a module has to have the following features:

- Clearly stated objectives.
- Well defined scope
- Self-contained and complete
- Contains instructional material related to the objectives
- Includes learning activities ranging from easy short answers questions to open ended more challenging questions.
- Fields test content to evaluate content
- Periodic assessment based on evaluation from students and instructors.



Figure 1: Module Components

The Enriching Security Curricula and Enhancing Awareness of Security in Computer Science and Beyond:

This project is a collaboration of three Houston based universities: Texas Southern University (TSU), the University of Houston-Central(UH) and the University of Houston-Downtown (UHD). The project consists of several topics, which have been designed as a set with relevant teaching material, application and open ended exercises. Each module can be offered and presented to the learner as a sequence of learning tasks or offered individually. The project includes more than 8 general topics covering a wide array of security and privacy related topics and ranging in difficulty from topics offered to non-CS students to some more adjusted to graduate CS students. In this paper, we will focus on the Privacy and Security in Mobile Environments.

Privacy and Security in Mobile Environments:

The mobile environment landscape includes three main areas that we chose to focus on and for which modules were designed: a) Mobile Infrastructure Security, b) Mobile Devices Security Mobile and c) Mobile Applications Privacy and Security.

These 3 areas provide a comprehensive coverage of the mobile environment and afford the student a suitable working knowledge of the topic.

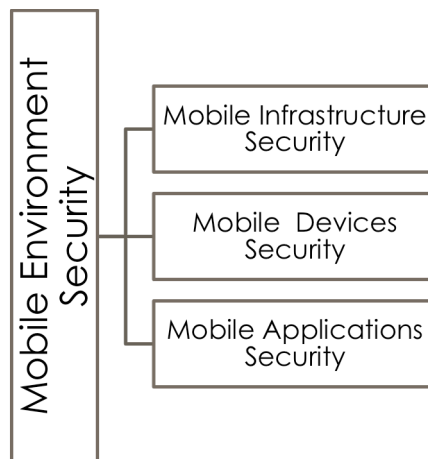


Figure 2: Mobile Environment Security Module Organization

Mobile Infrastructure Security:

In the Mobile Network Infrastructure, we cover the security issues in two of the most widely deployed network infrastructures, i.e., the Cellular Networks and the Enterprise WiFi Networks. These two types of networks support the majority of the wireless network traffic and have very significant impacts on business, economy and social lives.

The objectives of the modules include:

- Understand the security and privacy threats to the mobile infrastructure
- Understand the basic strategies and approaches to enhance mobile infrastructure security and privacy.

The module requires 4 hours of lecture and 2 hours of hand-on lab. The lectures focus on the following topics:

- Carrier networks: Cellular networks
- Enterprise networks: Wi-Fi networks
- Threats: Eavesdropping, interceptions, tracking, unauthorized access, malware.
- Mitigations: Encryptions, VPN, carrier SLA, authentication, malware scan

Following are detailed descriptions of each of the topics.

- On Carrier networks: This section introduces a brief history of carrier networks and presents the various types of cellular networks, starting with 1G network, followed by 2G, 3G and 4G cellular networks. For each generation of cellular networks, its main features and architectures are discussed. The security vulnerabilities are explored, together with explanations of possible attacks. Greater emphasis is put on the security architectures of 3G and 4G cellular networks, and the encryption algorithms.
- On Enterprise Wi-Fi networks: This section first introduces the two modes of operations, i.e., the infrastructure mode and the ad-hoc mode. Wi-Fi networks' vulnerabilities are discussed, together with possible threats and attacks. Next various Wi-Fi security protocols are studied, including WEP, WPA (WPA1 and WPA2), and WPS. Security vulnerabilities of WEP are discussed in details, followed by study of WPA and WPS.

This instructional material is complemented by hands-on lab exercises. By performing these exercises, students will understand the risks of Wireless communications, as well as the security and vulnerability of WEP and WPA by conducting a simple eavesdropping attack on a 802.11 Wi-Fi wireless network. Lab equipment includes 2 PCs with wireless NICs, one wireless router/access point and one laptop with wireless NIC running Aircrack-ng. Possible steps are:

1. Install and configure a 802.11 network on the 2 PCs and the Wi-Fi router/access point;
2. Set the security mode on the PCs and the router/access point to WEP;
3. Initiate and maintain constant traffic between the 2 PCs via the wireless router/access point;
4. Start Aircrack-ng on the laptop; Eavesdrop and try to break the traffic;
5. Set the security mode on the PCs and the router/access point to WPA;
6. Start Aircrack-ng on the laptop; Eavesdrop and try to break the traffic;

Mobile Devices Security:

Mobile devices usage has grown exponentially since the advent of mobile phones in the nineties of last century. In 2015, the number of mobile devices has surpassed the number of people inhabiting the planet earth, with an average of 2 devices per human being. Furthermore, a recent Pew report, about smart phones usage, showed that smartphones and other mobile devices are being used for much more

than calling, texting or basic internet browsing, indeed 57% of people interviewed have used their mobile device for online banking, 62% used them to look up a health condition and 19% have limited means to access the Internet besides their smart mobile device. The report also showed that 15% of Americans between the ages of 18-29 heavily depend on a smartphone for their online access. And these numbers are posed to increase. It is then timely that CS students acquire notions on how to securitize mobile devices.

The objectives of this module are for students to:

- Understand the security and privacy threats to mobile devices.
- Understand the basic strategies and approaches to enhance mobile device security and privacy device configuration, user authentication, data encryption, etc.
- Understand detection of security threats and mitigation approaches,

Topics covered by the module are:

1. Introduction to Mobile Devices: Mobile devices are small handheld devices, typically having a display screen, a miniature keyboard or an on-screen keyboard and have an operating system that can run various types of application software, known as apps. Most smart mobile devices are also equipped with Wi-Fi, Bluetooth and Global Positioning Systems (GPS) that allow connections to the Internet and other Bluetooth capable devices. A camera or a media player can also be typically found on these devices along with a stable battery power source. Due to the fact that mobile devices move with their owners, access to a device no longer requires breaking into a secure facility. Additionally, mobile devices get lost, stolen or are borrowed, which means that they typically have no security. The mitigation approach is to assume that physical access will be granted to untrusted parties.
2. Secure Local Data Storage: Information in many mobile devices is stored locally, including passwords files and authentication tokens. Strong authentication that is passwords that contain a combination of letters, one of which should be uppercase, numbers and special characters is now the industry standard. The issue with adapting a strong authentication policy is that it is almost impossible to uphold this standard using mobile devices keyboards which are small and difficult to use, especially in non-smart mobile phones.
3. Safe Browsing Environments: The lack of display space on mobile devices can cause some security issues when browsing the web. Indeed it is difficult to see the entire URL, since most links also show the underlined display text. This can make the user vulnerable to phishing attacks. Links are followed more frequently

on mobile devices than other computing platforms, making scamming easier. Mobile devices heavy reliance on URL links makes it difficult to distinguish safe links from compromised ones.

4. **Spyware, Malware and Phishing:** The mobile computing environment with its limited display space requires the presence of links when accessing the Internet. The lack of space on a mobile device screen makes it impossible to see the full URL of the source web page and the user cannot ascertain the validity of a link before clicking on it. This situation brings about the threat of mobile viruses, worms, Trojans, and phishing attacks. Cross-site Request Forgery(CSRF) is an attack that affects web applications
5. **Security Risks of Mobile devices to "traditional" IT systems and Mobile Device Managed Environments:** Corporations and organizations are faced with two choices when trying to integrate mobile devices into their IT infrastructure. They can either provide employees with an approved company device that they manage. The second option is a BYOD (bring your own device) policy that the IT personal registers and may require to install some safety apps before allowing access to the corporate network.

Suggested hands-on exercises:

These exercises require students to use a smart phone and perform some research to address the open ended questions:

Activity 1: Establishing a PIN for a device SIM Card

Activity 2: Backing up data on a mobile device.

Activity 3: Privacy and security of Geolocation: Study the pros and cons of saving the user location data in a database versus the device.

Activity 4: Define device rooting is and study the pros and cons of jailbreaking a device.

Security of Mobile Applications:

The number of mobile applications has reached the millions with Google Play, for the Android platform holding more than one million and a half apps, closely followed by Apple Store, for the iOS platform. The chart below shows the distribution of app availability by platform. This increase in the number of mobile apps, has also be accompanied with increase in interest for mobile app programming, so much so that a majority of computer science programs have included such courses in their curriculum. The module of security of mobile application aims at providing students, with background in programming mobile applications, with necessary

knowledge to become aware of the security risks that applications may present, and some design principles that app programmers can apply to design more secure applications.

Figure 3: Distribution of mobile applications by platform

Topic Covered in this module are:

1. **Vulnerabilities:** This part introduces the student to security jargon and what terms such as a vulnerability, an exploit, zero-day attacks, etc. It also introduces the types of malware and how each type operates.
2. **Coding Vulnerabilities:** This part introduces the array of security issues that could inadvertently be introduced through bad programming techniques, such as the unnecessary use of global variables, register variables, non-initialized variables and so on. SQL injections are also discussed and how they become operational. The student is then introduced to methods to mitigate these security issues.
3. **JAVA Mobile Apps Security:** This topic discusses the mobile JAVA used by Google Android platform. It discusses the security approaches that are used, such as, sandboxing the app, controlling access and permissions to resources, limiting communication between apps, and signing an app to verify integrity and provenance.
4. **iOS Security:** This section introduces the Apple security framework, also called *chain of trust*. Unlike the Google Android platform, Apple requires that each piece of code has to be Apple signed before it gets installed on a device. iOS also establishes secure enclaves, each with its own encryption key to secure memory areas in which data for accessing the device, such as fingerprint data or passcodes are stored. Encryption methods in iOS are also introduced as well as the types of protections that an app might have. iOS requires that all executable code be signed using an Apple-issued certificate. Third-party apps must also be validated and signed using an Apple-issued certificate. Mandatory code signing extends the concept of chain of trust from the OS to apps, and prevents third-party apps from loading unsigned code resources or using self-modifying code.
5. **Mobile HTML Security:** Mobile websites are slimmed down versions of regular websites for mobile use. Mobile HTML sites are growing in popularity as more devices can access them. Security challenges are introduced, such as cross-site scripting (XSS), HTTP redirect and phishing
6. **Mobile Geolocation:** This part of the module introduces the methods used for geolocation and the accuracy and precision of each. It also discusses the ways in which the three major mobile environments

(Android, iOS and Microsoft Mobile) implement it. Security and privacy threats are also discussed and what best practices are to be put in place to mitigate these risks.

Suggested hands-on activities:

In order to enable students to recognize the security risks related to mobile applications as well as how to mitigate them, we suggest to use off the shelf, public domain labs that have already been designed and tested. One such repositories is the Android Security Lab were developed by Li Yang at the UTC Information Security (InfoSec) Center and others (Yang, 2014) and PLab: Information Assurance and Security Education on Portable Labs (PLab, 2015)

CONCLUSION

Mobile networks, devices and applications present a new computing paradigm in which various security challenges need to be addressed. Three modules were presented that can help instructors in the task of informing their students about these topics. A set of activities were presented that relate to each of these topics. These modules are being presented and tested for adoption and improvement in three institutions: Texas Southern University, University of Houston Central, and the University of Houston Downtown. The material is freely available, with more security related modules, at capex.cs.uh.edu

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WHY ALIGN?
HOW FAR OFF ARE WE IN MARKETING EDUCATION:
AN EXAMPLE?

Chu V. Nguyen

University of Houston-Downtown

Houston, TX

nguyenchu@uhd.edu

As Bob Dylan wrote in the 60s: Times they are a-changin'. Since the begin of the 21st century, changes in the US are evidenced by internationalization of the economy leading to labor market globalization and exponential growth of trade flow, fast catching up by developing and emerging economies. The perception that US workers lack skills becomes prevalent and many companies could not find the right staff even during periods of high unemployment rates.

In response to the above phenomena, President Obama, state lawmakers, and national higher education associations are calling upon educational institutions to not only fill the current gap but to reach aggressive goals set for educational attainment in the U.S. by 2020 (Barnett, 2011; National Skills Coalition, 2011). As articulated by Foskett (2005), educational institutions are particularly affected by these changing times and may have to modify how they operate as a result of intrinsic responses to a perceived need or extrinsic responses through stakeholder collaboration.

Additionally, in the face of the 2013 AACSB's standards for accreditation quality, many colleges have tried to revise their curricula to align the graduates' skill set with industry needs. This framework also helps these institutions to tell their stories to satisfy the guiding principles of the 2013 AACSB's standards which are summarized in three words: Innovation, Engagement, and Impact of their programs.

The alignment of curricula by business education programs is also a proactive measure to protect their enrollments in the face of the new threats from Community Colleges. Community Colleges in some states are permitted to offer bachelor degrees. The logical choices for their program portfolios are in business disciplines. Cost wise, community colleges have a competitive advantage over four-year institutions - lower overall cost of tuition.

As mentioned, the objective of realigning learning outcomes with industry needs by higher education institutions is multi-fold, and encompasses multiple fronts of their operations. While some of the results of the aforementioned endeavors may take years to reveal their effectiveness or lack thereof, some challenges such as logistics of the process, and indications of relevancy of the curriculum can be assessed fairly quickly.

To this end, the remainder of this paper summarizes the process of a particular institution's effort to align its marketing program's learning outcomes with industry needs. This discusses the challenges of the process and differences between the existing and the revised curricula of a college of business at a four-year urban university, located in the fourth largest city in the US.

In the process of revamping its marketing degree to meet the needs of future graduates and their employers, the college invited a select group of industry professionals in the city to form a working group. The industry professionals helped to directly shape the new curriculum to better meet the needs of the businesses. During these meetings, group members brainstormed--with the assistance of a

designated group facilitator from industry--the competencies, skills and abilities they wanted to find in their ideal candidates hired from the college's marketing program. These competencies were recorded and then sorted into groups that became outlines for a new curriculum. Before adjourning, working group members drafted learning objectives ("The student will be able to...") which guided faculty as the courses and program were developed.

Faculty built courses around these outlines to meet both identified industry needs and rigorous academic standards. Before these rebuilt courses went through the university approval process, a second meeting was called with industry members. In this meeting, a progress report was provided to ensure that the courses were developed in line with the expectations initially laid out by the working group. The proof of ability to meet industry's needs will be the students. So, in the years to come, the discipline will assess students against the competencies that the industry professionals helped identify, and report those results back to the industry to bolster the placement of its graduates.

Table 1 summarizes the new required courses, other new courses, retained old courses and deleted courses as the result of the alignment of the learning outcomes of the marketing program with industry needs. As suggested by the new required courses of the program and newly developed courses, the industry needs seem to gravitate toward buyer behavior, marketing analytics, and application of technology to the marketing discipline. Difficulty in reconciling the industry suggestions and the academic learning outcomes, selecting the right industry professionals to form the working group, and soliciting faculty buy-in were the three major challenges encountered in the process. Finally, as compared to the current industry needs, the old marketing program of this college was pretty far off.

Table 1

<i>Required Courses</i>	<i>Courses in the Marketing Curriculum</i>		<i>Deleted Courses</i>
<i>5 Courses-15 hours</i>	<i>9 New Courses</i>	<i>10 Retained old Courses</i>	<i>4 Courses- 12 hours</i>
3305: Integrated Marketing.	3305: Integrated Marketing.	MKT 3302: Personal Selling.	MKT 3303: Business Marketing.
MKT 3308: Digital Marketing.	MKT 3308: Digital Marketing.	MKT 3304: International Marketing.	MKT 4302: e-Marketing.
MKT 4305: Buyer Behavior.	MKT 3350: Web, email, and Mobile Marketing.	MKT 3310: Marketing Channels.	MKT 4304: Supply Chain Logistics Management.
MKT 4306: Marketing Research.	MKT 3360: Product Innovation Management	MKT 3320: Social Media Marketing.	MKT 4308: Exporting & Importing.
MKT 4309: Marketing Strategy.	MKT 4305: Buyer Behavior.	MKT 3330: Retail Management.	
	MKT 4309: Marketing Strategy.	MKT 3399: Directed Study in Marketing.	
	MKT 4320: International Business Development.	MKT 3340: Customer Relationship Management	
	MKT 4330: Understanding the Digital Consumer.	MKT 4306: Marketing Research.	
	MKT 4340: Marketing Analytics.	MKT 4380: Field Experience.	
		MKT 4390: Special Topics in Marketing	

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PREDICTORS OF ACADEMIC PERFORMANCE IN INTERMEDIATE ACCOUNTING COURSES AND BEYOND AMONG STUDENTS AT AN URBAN FOUR-YEAR UNIVERSITY

Chu V. Nguyen

*College of Business, University of Houston-Downtown
Houston, Texas*

Diana Pence

*College of Business, University of Houston-Downtown
Houston, Texas*

Douglas teDuits*

*College of Business, University of Houston-Downtown
Houston, Texas*

teDuitsDo@uhd.edu

*Corresponding author

ABSTRACT

This study utilized the Ordered Logit model to examine personal and contextual factors that may contribute to academic success in Intermediate Accounting among students attending a large urban minority-serving institution. To this end, the empirical results of this investigation indicate that the following factors influence student performance in Intermediate Accounting I: gender, ethnicity, current GPA, household income level, number of courses enrolled during the current semester, how long ago Managerial Accounting was taken, grade received in Managerial Accounting, number of out of class hours spent on Intermediate Accounting I, use of accounting tutoring lab, and academic status of instructors.

KEYWORDS: Predictors of performance, Intermediate accounting, urban university, Logit model, academic success

INTRODUCTION

Tinto (2012) reports that people who go to college and complete a bachelor's degree can earn over one million dollars more, on average, during their life time than do those who do not go to college. The author stressed that what matters is completing a degree, especially a four-year degree. In the age of globalization where the labor market has been internationalized, perhaps the most important indicator of success and future earnings potential in a competitive job market is not only the completion of a four-year degree but also earning a high grade point average (GPA) upon graduation.

While the research literature concerning college student retention has led to the design and implementation of interventions that improve the performance, retention and graduation of students, these positive effects are not uniform across colleges and majors at a given university. In particular, the accounting discipline poses additional challenges for faculty and administrators because of the following characteristics: (i) the rigor of the subject matter, and (ii) the strict sequencing of the courses in the program. In addition, the rigor of the accounting curriculum must strictly be adhered to given that accounting programs are evaluated by the CPA passing rates of its graduates. Specifically, students' CPA passing rate is public record and it is used as one important quantitative measure to evaluate the accounting programs of the colleges of business by their stakeholders. Additionally, CPA exams have recently become more difficult, which may be precipitated by the wave of corporate failures in the early 2000s; examples of which include WorldCom, Enron, and Arthur Anderson.

Statistically, the measures of student performance, such as their grades as well as intervention activities, are truncated both from below and from above, i.e., the grades are A, B, C, D, F, or W; while interventions are in the forms of whether students participate and how often they participate in the intervention activities. The numerical values of these measures are usually discrete and truncated. To apply any regression model on a dependent variable with multiple truncated value and discrete in nature, the probability density of the dependent variable must be relocated from plus and minus infinity to the range between its upper and the lower limit values.

The motivation for this investigation is that if social demographic factors, contextual factors, and academic status of faculty teaching accounting courses are identified to have significant effects on students' performance, these variables could serve as an invaluable basis for formulating policy to address these pressing issues. In light of the aforementioned, this study utilized the Ordered Logit model, which can handle the qualitative responses to identify factors contributing to students' performance.

Therefore, this paper will first briefly review the literature related to college

student success, and then describe the methodology used in the current investigation. Second, data analysis and empirical results will be reported. The final section will offer concluding remarks.

REVIEW OF LITERATURE

There is extensive research on student academic success and persistence, especially among freshmen (Tinto, 1975, 1993; Pike & Saupe, 2002; McLaughlin, 2006; Tracey & Sedlacek, 1989). Tinto (1993) conceptually argued that academic performance and persistence are impacted by student characteristics that are measured by levels of academic preparation in high school and college admission test scores. This underlying assumption may explain why the College Admission Index is based, for the most part, on cognitive measures. McLaughlin (2006) White and Sedlacek (1986), Tracey and Sedlacek (1989), Boyer and Sedlacek (1988) have confirmed that cognitive variables, such as high school GPA, high school percentile rank, and college admission test scores, predict the academic success of college students.

The search for factors associated with university students' academic success by Trockel et al. (2000) stimulated keen interest and spawned a large number of empirical studies in recent decades. Cumulative grade point average is frequently used as a measure of academic success. George et al. (2008) argued that the purpose of education also extends to personal and professional achievement. Therefore, researchers conducting studies of this nature have included, in addition to GPA, subjective measures of personal success. Consequently, George et al. (2008) duplicated certain aspects of research by Trockel et al. (2000) who used GPA as their standard of success and a variety of physical and mental health criteria as predictors. Also, these authors pointed out that Trockel et al. (2000) used a mail-in survey that included self-reports of exercise, eating patterns, sleep habits, mood states, perceived stress, time-management skills, social support, and others. These researchers also asked participants to maintain a time diary of daily activities and answer a questionnaire with additional exploratory variables. Furthermore, George et al. (2008) used an expanded measure of success that includes both objective (GPA) and subjective (personal success) measures. To minimize social desirability biases and increase objectivity, they also analyzed assessments of certain questionnaire items by a friend of each participant.

Empirically, George et al. (2008) found the following seven significant predictors of GPA: (i) time-management skills; (ii) intelligence; (iii) time spent studying; (iv) waking up earlier, (v) owning a computer; (vi) less time spent in passive leisure; and (vii) healthy diet. In another study investigating predictors of academic success, Adebayo (2008) empirically found one cognitive variable—high school GPA, and two non-cognitive measures—realistic self-appraisal and understanding and coping with racism; to be the best predictors of academic success of conditionally admitted underprepared students during their first semester. Adebayo (2008) further

reported that high school GPA, which accounted for 14 percent of the variance in the first semester GPA of the cohort, was a stronger predictor of first semester GPA of conditionally admitted students. Another variable is Realistic Self-Appraisal which is defined as students can reflect from a realist self-appraisal system to modify their behavior. Also, Understanding and Coping with Racism is defined as students understand their positions in the multicultural society and are capable of coping with racism.

METHODOLOGY

Among the members of the class of the logistic regression models, the Ordered Logit model is more appropriate for handling the aforementioned truncation and non-normal distribution. The general objective of the analysis is to construct a probability model that links the changes in a set or a $1 \times n$ vector of independent variables or covariates to the probability of an outcome. Following Greene (2012), this study specifies equation (1) as the basis condition to construct the Ordered Logit model, where y^* is an unobservable dependent variable relating to the vector of covariates x 's as follows:

$$y^* = x' \beta + \varepsilon \quad (1)$$

What we do observe is

$$\begin{aligned} y_i = 0 & \text{ if } y_i^* \leq 0 \\ y_i = 1 & \text{ if } 0 < y_i^* \leq \mu_1 \\ y_i = 1 & \text{ if } \mu_1 < y_i^* \leq \mu_2 \\ & \dots\dots\dots \\ y_i = J & \text{ if } \mu_{J-1} \leq y^* \end{aligned}$$

which is a form of censoring. The μ 's are the J-1 unknown parameters to be estimated with β .

$$\begin{aligned} \Pr(y_i = 0 | x, \beta, \mu) &= \varphi(-x' \beta) \\ \Pr(y_i = 1 | x, \beta, \mu) &= \varphi(\mu_1 - x' \beta) - \varphi(-x' \beta) \\ \Pr(y_i = 2 | x, \beta, \mu) &= \varphi(\mu_2 - x' \beta) - \varphi(\mu_1 - x' \beta) \\ & \dots\dots\dots \\ \Pr(y_i = J | x, \beta, \mu) &= 1 - \varphi(\mu_{J-1} - x' \beta) \end{aligned} \quad (2)$$

Finally, for all the probabilities to be positive, the μ 's must satisfy the following condition:

$$0 < \mu_1 < \mu_2 < \dots\dots\dots < \mu_{J-1}$$

1. Data

This study uses the data collected by a survey on students taking Intermediate Accounting I (ACC3300) during spring 2015 at a large urban university serving the minority and Hispanic student body. For the 150 responses received, only 45 of them are usable. The characteristics of interest or the variables from each human subject or student to be collected are: gender; ethnicity; age; employment status; number of hours worked per week; current GPA ; the recipient of Pell Grant; household income; number of courses enrolled this semester; highest grade received in College Algebra; number of times enrolled in College Algebra; institution where the students took Managerial Accounting; how long ago Managerial Accounting was taken; grade that student received in Managerial Accounting; how many hours the students spent studying ACC3300 per week outside of the classroom; whether the responders use the tutoring lab; and academic status of the instructor of ACC3300.

As to indexing the ordered qualitative covariates, students' grades in ACC3300, which are quantitatively indexed such as A, B, C and all other grades are 3, 2, 1 and 0, respectively. These quantitative values are used as the dependent variable of the Ordered Logit model. As to the covariates, the following variables assume numerical values provided by the responders: age, current GPA, number of semester credit hours earned, number of courses enrolled this semester, number of times enrolled in College Algebra, and the number of hours that responders spent on ACC3300 per week outside of class.

One of the questions that this study investigates is that whether where students take their Managerial Accounting makes any difference in their performances in ACC3300. Since students in the survey took Managerial Accounting from 6 different community colleges, other institutions and from this four-year university as well; the previous question really asks if these institutions provide the same level of quality in Managerial Accounting. The responses to the question where the students took their Financial Accounting and Managerial Accounting were indexed to numerical values from 1 to 7 and then these values were used to create variables for representing each institution where the students took their Managerial Accounting, with "this four-year university" acting as the reference institution. The time intervals between when students completed Managerial Accounting and when they enroll in ACC3300 are measured in number of semesters. The grades for Managerial Accounting assume the values of 4, 3, and 2; corresponding to the alphabetical grades of A, B, and C, since students must earn one of these grades to enroll in ACC3300.

The gender of the responders: male and female were indexed to 0 and 1, respectively. The students' ethnicities were indexed to numerical values from 1 to 8 and then these values were used to create variables for representing each ethnic group with "white non-Hispanic" acting as the reference group. Four instructors

taught these accounting courses over the sample period and their academic status ranged from full time lecturers to tenured associate professors. Each instructor in each category is randomly assigned a numerical value to the dummy variable according to the orders of their last names, starting with the lecturers, associate professor, and then tenured professors. Thus, the lecturer would be assigned the numerical value of 1; the next lecturer would be assigned the value of 2. Consequently, the dummy variable in this sample has the numerical values ranging from 1 to 4. The grades for College Algebra assume the values of 4, 3, 2, 1, and 0; corresponding to the alphabetical grades of A, B, C, D, and F.

As to the remaining covariates in the survey, the choices presented to responders on the inquiry if they are recipients of the Pell Grants: yes and no, were indexed to 1 and 0, respectively. Similarly, the choices provided to the question if students use the tutoring lab: yes and no, were respectively indexed to 1 and 0. The five categories provided to described the employment status of respondents are employed full-time in accounting field, employed full-time in non-accounting field, employed part-time in accounting field, employed part-time in non-accounting field, and not employed at all were indexed to 4, 3, 2, 1, and 0, respectively. The number of hours that the part-timers worked per week are stratified into the following 6 intervals: less than 10 hours, 10-15 hours, 16-20 hours, 21-25 hours, 26-30 hours, and more than 30 hours were respectively indexed to 1, 2, 3, 4, 5, and 6. Finally, family income was stratified into five different levels: less than \$15,000.00, 15,000.00 to 25,000.00, more than 25,000.00 to 35,000.00, more than 35,000.00 to 50,000.00, and more than \$ 50,000.00, which were indexed to 1, 2, 3, 4, and 5.

2. Estimation Results

The estimation results of the Ordered Logit model using the aforementioned data set are summarized in Table 1. Overall, the empirical results reveal the goodness of fit as evidenced by the log likelihood ratio statistic, Akaike information criterion and Schwarz information criterion.

A closer examination of the empirical results reveals that, based on the z-statistics and their p-values, the estimated coefficients of the following covariates are statistically significant at conventional levels: gender, ethnicity, current GPA, household income level, number of courses enrolled during the current semester, how long ago Managerial Accounting was taken, grade receiving in managerial accounting, number of out of class hours spent on ACC3300, use of accounting tutoring lab, and academic status of instructors.

Table 1

Covariate	Estimated Coefficient	Standard Error	z-statistic	Pr. > z
Gender	-1.781108	1.069732	-1.665004	0.0959
Ethnicity	-1.101035	0.384626	-2.862609	0.0042
Age	-0.116819	0.079328	-1.472610	0.1409
Employment status	0.662553	0.602772	1.099178	0.2717
Number of hours worked per week	-0.606587	0.451582	-1.343248	0.1792
Current GPA	8.848476	2.305165	3.838544	0.0001
Recipient of a Pell Grant	-2.071357	1.463437	-1.415406	0.1569
Household income level	0.898914	0.429883	2.091065	0.0365
Semester credit hours earned	-0.009473	0.012242	-0.773854	0.4390
Number of courses enrolled this semester	2.514136	0.987956	2.544785	0.0109
Highest Grade received in College Algebra	0.828775	0.717405	1.155240	0.2480
Institution where Managerial Accounting was taken	-0.371394	0.385336	-0.963820	0.3351
How long ago Managerial Accounting was taken	0.624044	0.216674	2.880105	0.0040
Grade received in Managerial Accounting	-2.513690	1.154049	-2.178147	0.0294
Number of times enrolled in College Algebra	0.150371	0.099477	1.511607	0.1306
Number of out of class hours spent on ACC3300 per week	-2.376228	1.373981	-1.729447	0.0837
Use of accounting tutoring lab	-1.781108	1.069732	-1.665004	0.0959
Academic status of instructor	-0.083431	0.044568	-1.871995	0.0612

Statistics	Akaike information criterion	1.986253
	Schwarz information criterion	2.789214
	Log likelihood	-24.690690
	Log likelihood ratio statistic	72.466950
	Prob. (Log likelihood ratio statistic)	0.000000

Note: z-statistic tests for the significance of the corresponding est. coefficient.
Pr.> |z| is the p-value.

Interestingly, some of the estimation results seem to be counter intuitive which could be logically substantiated. The negative estimated coefficient of the Pell Grant can be attributable to the fact that Pell Grant is in fact an indication of poverty. Secondly, the negative correlation between grades students receive from Managerial Accounting and ACC3300 may be explained by the fact that Managerial Accounting is a general accounting course required for all business students, taken by many non-accounting majors; thus, those who got good grades may be the victim of their own complacencies. ACC3300 is the first rigorous accounting course required of all accounting majors. Some accounting academics consider ACC3300 to be the “make-or-break course” that separates students who truly want to be accountants and are willing to do the things necessary to successfully complete an accounting degree from others. Finally, few students used the tutoring lab. They may be the procrastinators; therefore, using the lab may be an indicator of lack of studying.

CONCLUDING REMARKS

There is no question that higher education pays off. The underlying assumption of this articulation is that one must successfully complete a degree. Tinto (2012) articulated that on average people who go to college and complete a bachelor's degree can earn over one million dollars more during their lifetime than do those who do not go to college. Clearly, to succeed academically, students must pass every course they attempt. To this end, the empirical results of this investigation gender, ethnicity, current GPA, household income level, number of courses enrolled during the current semester, how long ago Managerial Accounting was taken, grade receiving in Managerial Accounting, number of out of class hours spent on ACC3300, use of accounting tutoring lab, and academic status of instructors.

These empirical findings are very important for the implementation of corrective interventions and course deliveries as well as student advising.

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CREATING A MEMORABLE LECTURE

Arash Shahi

University of Toronto.

arash.shahi@utoronto.ca.

Mahdi Safa*

Lamar University

msafa@lamar.edu

Brenda McCabe

University of Toronto

mcabeb@civ.utoronto.ca

Majeed Safa

Lincoln University

Majeed.Safa@lincoln.ac.nz

Seokyon Hwang

Lamar University

seokyon.hwang@lamar.edu

Steven W. McCrary

Lamar University

steven.mccrary@lamar.edu

*Corresponding author

ABSTRACT

All instructors hope that students will learn and remember what they teach in the classroom years after the lectures are over, an optimism challenged by staggering statistics showing that students only retain 10-20% of their lecture material even three weeks after the lectures. Despite many discouraging and demotivating statistics with respect to lecture material retention rates by students, we all have experienced at least one instructor whose inspiring lectures have had a long lasting and transformative effect on us. In this paper, the authors aim to inspire recognition in our role, as educators, to design effective lectures which promote optimal memory recall and learning. A number of specific strategies to promote long-term retention of knowledge are presented, including rehearsal and graphic representation of material, including the graphic syllabus.

KEYWORDS: Memorable, teaching, classroom, retention rates, effective lectures

INTRODUCTION

There is a great deal of research on memory and cognition and as educators it seems appropriate to be aware of what assists individuals with memory and recall. This also includes higher levels of conceptual understanding because fundamental knowledge needs to be accessible in order to use the information for levels such as analysis and synthesis.

One way to categorize memory is short-term versus long-term memory. Essentially you can think of your short term memory as a “supped-up” white board in your mind. We all know what a white board is, but imagine a “supped-up” windshield wiper attachment on the bottom of the white board. All incoming information is put on your short-term memory white board (so to speak), however, this information is not creating neural mechanisms in your brain for later recall. Just imagine that every 2-30 seconds (depending on the situation, while the average is 18 seconds), the wiper will clear the information in your short-term memory!

The only way in which you'll have this information for later recall is if this information is “filed” in your long term memory. So picture yourself with a clipboard, actively selecting what information is important and/or meaningful for you to write down and file into the filing cabinet. There are many available tools for moving the content from the whiteboard to the filing cabinets, including the use of mnemonic, novelties, chunking, rehearsal, elaboration, and graphic representation. In this paper we'll present the latter three techniques as examples on how to make your lectures more memorable. The reason that we have focused on these techniques, is that as described later in this paper, they are also very effective learning strategies that could be integrated into the classroom.

REHEARSAL VS. ELABORATION TECHNIQUES

Imagine that your spouse phones and asks if you can pick up 5 things from the grocery store on the way home. When you get off the phone, you simply review the list the way in which it was said to you over the phone “milk, carrots, bread, oranges, eggs”. This is called rehearsal or simply maintenance. Elaborative processing or elaborative rehearsal takes the form of attention to meaning. This attention to meaning is called deep processing. Many studies have shown that deep processing leads to good memory performance later on even without the intention of memorizing the target material. The intention to learn had no direct effect on performance; what matters instead is how someone engages or thinks about the material to be remembered.

So returning to the grocery list, some people may prefer to categorize the food in terms of meals. For example they may view milk, bread, eggs and oranges as breakfast food, some people may think more in colors with 3 white foods (milk, bread, eggs) 2 orange foods (carrots and oranges), or others may think of what those foods are used at what meals (think of breakfast tomorrow and packing lunch

for your son tomorrow). In any case, changing the grocery list to have meaning is called elaborative rehearsal and allows for deep processing and long-term memory recall. This is only one of the techniques that has been identified for transferring information to the long-term memory., (Readers are highly encouraged to investigate the other identified methods in order to deliver a more memorable lecture, including using the graphic representations as explained in the rest of this paper.)

GRAPHIC REPRESENTATION

Over the last decade, there has been a clear trend towards conveying information in graphical forms and decreasing communication in text, mainly due to the emergence of the younger generations being raised on video games, movies, and television (Fischman 2001; Vekiri 2002).

One of the important strategies in lecture design that utilizes the science of memory is "Picture Superiority Effect", which indicates that concepts expressed in pictures will generally be remembered much better than concepts expressed with words (Plotnick 2001; Fenker et al. 2008); Stenberg 2006). The reason behind this is based in evolutionary biology. Homo sapiens (or modern humans) have existed for approximately 200,000 years, while there is fossil evidence of Homo sapiens dating back to 2 million years ago. As language was developed, communication was achieved orally and through drawings or pictograms. On the other hand, while there are a variety of estimates out there, the written word has existed for less than 10,000 years, and perhaps only as little as 6,000 years. This means that through most of the hundreds of thousands of years of human evolution, and more specifically human brain evolution, we were hardwired to assimilate visual information from pictures, much more readily than from written language.

Most instructors have been taking advantage of the use of graphics in their teaching, most likely without understanding the evolutionary reasons behind its success. In this paper, however, a specific use of graphic representation, the graphic syllabus, is investigated with the objective to complement the traditional use of course syllabi.

Growing Challenges of Text-based Syllabi

Over the last decade, the course syllabus has grown from a compact one or two pager of schedule of course topics and course objectives, to a five to ten page laundry list of information (Nilson 2007). While some instructors and institutions feel the need for providing a large amount of rather repetitive and text-heavy information on the syllabus, the main purpose of the syllabus has always been to provide organization and schedule of topics for the course and a list of learning objectives.

A previous poll by one of the authors at University of Waterloo was

conducted on approximately 550 undergraduate engineering students and showed that only 16% of students read the course syllabus, while 40% 'briefly review it', and the rest only refer to it for deadlines throughout the course.

Something that most instructors may not realize is that even if students were to read their syllabus, they would not be able to make much sense out of it. Even though the topics are clearly and logically ordered in the instructor's mind, since students have no prior knowledge of the topics and their interdependencies, they may comprehend the syllabus similar to what is presented in Table 1. Of course, there is some exaggeration in play in this figure, but it attempts to show the great miscommunication that could take place through a text-based syllabus.

Table 1: A course syllabus from students' perspective (Nilson 2007)

Course Syllabus for Course BLAH 101: "Something I Gotta Take"
Week 1: Overview of Something I Gotta Take
Week 2: The Composition of Apple Peel
Week 3: Introduction to Giraffe Consciousness
Week 4: Cooking with Sugar and Eggs
Week 5: Sugar and Eggs Continued: Challenges and Solutions
Week 6: Advanced Giraffe Consciousness and Introduction to Pineapples

There may be more than one solution to solve this miscommunication between the instructors and students, but surveys of undergraduate students show that using more text is certainly not one of those solutions. In the next section, the authors describe the Graphic Syllabus, which could be used to significantly improve the impact of the traditional syllabi.

Graphic Syllabus

Nilson (2007) defines a graphic syllabus as "a flowchart or diagram that displays the sequencing and organization of major course topics through the semester. It uses spatial arrangement, connecting lines, arrows, and sometime numbers to show the logical, temporal progression of the course through topics within the subject matter. In addition, it may, but need not, use icons, pictures,

and visual metaphors to convey the meaning of words, concepts, and relationships.” Others have defined a graphic syllabus simply as a graphic representation of the course syllabus or that of the course content. While Nilson's definition is certainly a more comprehensive definition, what everyone agrees on is that the graphic syllabus intends to replace words with figures and diagrams and therefore provide an understandable structure for the course content, acknowledging students' lack of a-priori information on the course.

A sequence or chronology is one of the simplest forms of designing a graphic syllabus. Chronology can be defined as a succession of events based on logic or time. Courses that are best suited to this type of graphic syllabus are history courses or training courses. In a Culinary techniques course, Dr. Aubrey Coffee organizes her course as a logical sequence of topics and skills that student have to master, as shown in Figure 1.

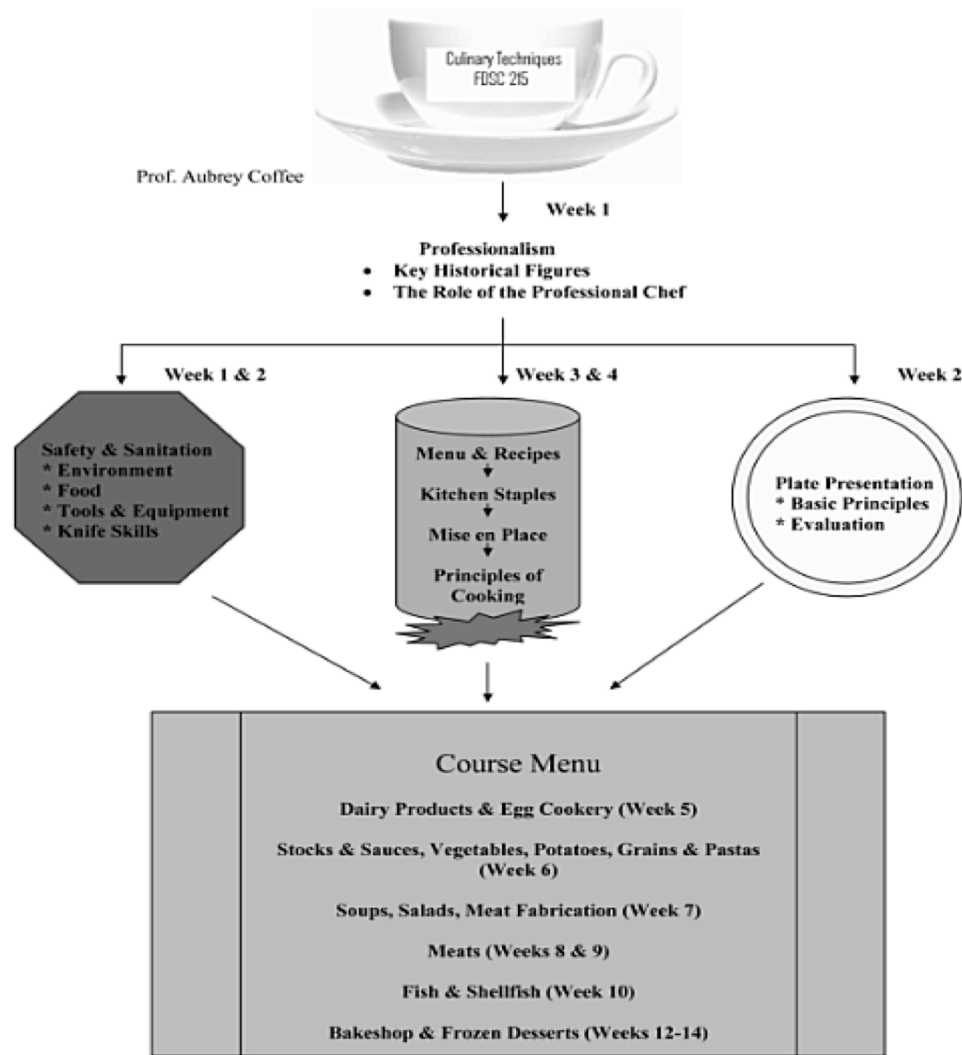


Figure 4: Culinary Techniques Course (Nilson 2007)

As described in Figure 1, after teaching some history and introduction to the role of the professional chef, the instructor spends weeks 1 to 4 on topics that may seem unrelated to a student who doesn't have this graphic syllabus. However, as shown in this figure, these are all related topics and are pre-requisites for learning the "course menu" lessons.

A graphic metaphor is another type of graphic syllabus that has an overall design or layout based on an object or set of objects. The object need not be related to the subject matter of the course, but the metaphor is particularly memorable when it is (Brinkmann 2003). A metaphor adds value by providing a single symbol of the course structure that facilitates and strengthens students' retention of the course material. The graphic metaphors are not a new concept, but using them as the graphic syllabus of the course has shown to receive very positive feedback from the students (Biktimirov and Nilson, 2003). Figure 2, shows Heynood (1986)'s model for an approach for technology education in Ireland. Each of the topics on the legs could represent one module within the course. In these metaphors, the contents of those three legs are based on a set of values and support the society as a whole. Other metaphors that could be used as a course syllabus include a factory, a tree, a building, etc.

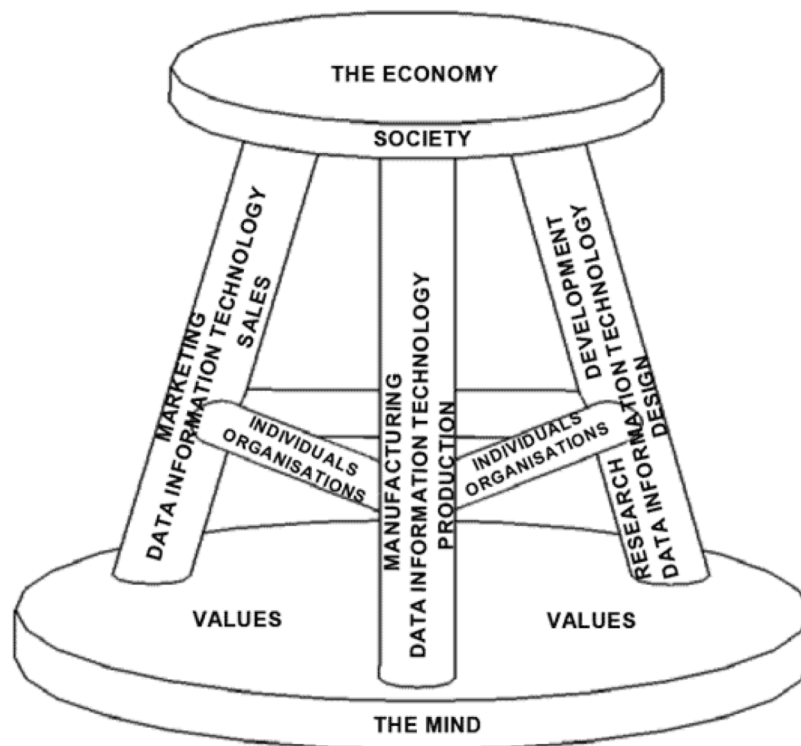


Figure 5: Graphic Metaphor as a Course Syllabus (Heynood 1986)

CONCLUSIONS

In this paper, the authors provide a number of techniques that could be used in the classroom in order to make a lecture and essentially a course more memorable for students. These methods are aimed at increasing the long-term recall of information by students and at increasing the comprehension of the course material, from a structural perspective. The more structure that is provided to the course content, the higher information retention rates that students tend to exhibit. This paper covers creative and simple tools, such as the elaboration technique which could be used to enhance students' information recall rates to a more comprehensive method of presenting the structure of a course in a graphic syllabus. While there are numerous other methods available to make a lecture and a course more memorable for students, this paper aims to show the potential that is available for instructors and motivate them to investigate this topic and choose what works best for their classroom.

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A REGRESSION ANALYSIS OF THE MOST INFLUENTIAL MANAGEMENT BOOKS OF THE 20TH CENTURY

Marianna Sviland*

Prairie View A&M University
Prairie View, TX
masviland@pvamu.edu

Reginald Bell

Prairie View A&M University
Prairie View, TX

Mohammed Hussein

Prairie View A&M University
Prairie View, TX

Mostafa Soliman

Prairie View A&M University
Prairie View, TX

*Corresponding author

ABSTRACT

The authors of this study found evidence that eight of “the most influential management books of the 20th century” (Bedeian & Wren, 2001) has intensified tremendously over the past 50-years, when examined 5-years at a time, for 10 periods, from 1963-1967 to 2008-2012. The investigation reveals interest in 25 books central to the origins of management as a field is increasing rapidly. Interest in March and Simon’s “Organizations,” Maslow’s “Personality and Motivation,” Taylor’s “Principles of scientific Management,” Weber’s “The Theory of Social and Economic Organization,” and Barnard’s “The Functions of the Executive,” has increased tremendously over the past 50 years. Data analysis shows differences on main effects and two-way interaction effects for each model with large effect sizes. Therefore, the data show that there is an increasing utility for the pioneering books contributing to principles of management. Furthermore, a reduced model shows that March’s and Simon’s, Taylor’s, Barnard’s, Weber’s and Maslow’s books have gained more traction over the most recent 25 years, but differ significantly from the other four books examined in this study concerning the increasing magnitudes of documents containing books’ titles. A stepwise multiple regression revealed the five most influential books among the 25 books in Bedeian and Wren’s list, and eight very popular 20th century books used as a comparison sample not on their list.

KEYWORDS: Utility, Influential books, management, theory

THE MOST INFLUENTIAL MANAGEMENT BOOKS OF THE 20TH CENTURY

Frederick W. Taylor, *The Principles of Scientific Management* (1911)

Frederick W. Taylor has been called the father of scientific management and his theories are often referred to as Taylorism. An engineer by trade, he pioneered the idea of maximizing productivity in workers, and therefore maximizing profits, by applying scientific principles to workers' tasks.

Even though his theory of management correlates strongly with the organizational needs at the time it was written, his work has been used as foundation for further development in global management thinking (Wren, 2011). His message of effective utilization of human and physical resources has transcended time and continues to influence managers today. As noted by Giannantonio & Hurley-Hanson, "what cannot be argued is that Taylor changed the way people worked in the 20th century." (p.7, 2011).

Henri Fayol, *General and Industrial Management* (1916)

Henri Fayol is largely considered the father of modern management. In this book he outlined the need for managers to have several separate skills in order to manage effectively. Fayol argued for the division of business practices into five distinct areas: technical, financial, security, accounting, and managerial. His focus was particularly on the latter. He claimed managers can learn several specific management principles that will make them more effective as leaders.

Fayol's contribution to modern management theories has been well-documented in current research and continue to influence today's managers. Researchers such as Fells (2000) argue that the basic principles of Fayol are still relevant today. Effective management is a skill that can be learned and should be taught. His principles of effective management, such as managerial duties of an organization and qualities of effective managers form the foundation of much modern management thinking and education.

Max Weber, *The Theory of Social and Economic Organization* (1922)

In his book, *The Theory of Social and Economic Organization*, Max Weber, a sociologist, explored the concept of power within organizational structures. He discussed the relationship between authority and power in an organization and the contributing impact on the greater society. His three bases for power, charismatic, traditional, and rational legal authority were central to his discussion of authority.

Recent management theories have embraced Weber's principles of authority as a foundation for power structures within organizations. Weber's rational-legal power base is largely seen as the source of modern bureaucracy, and now is considered a legitimate power structure in society (Houghton, 2010). Other aspects of Weber's power structures have also proven relevant in current management

thinking, especially in leadership theory and organizational behavior. His charismatic power base has provided guidance in modern leadership theories of transformational leadership, where charisma and vision help drive organizational change (Humphreys & Einstein, 2003).

Elton Mayo, The Human Problems of an Industrial Civilization (1933)

Elton Mayo is considered one of the fathers of the human relations movement in discovering what truly motivates workers. In this book, he focused on the problems of a modern, industrialized society with people increasingly isolated from each other and lacking meaningful relations. After the Hawthorne experiment, which is described here, Mayo concluded that meaningful interactions and a sense of belonging play important roles in worker motivation and job satisfaction.

Mayo's conclusions from the Hawthorne studies led to an increased focus on the human aspect of organizations. Current management thinking sees this informal, human-focused aspect of organizational management as additions, not replacements of the formal structures laid out by Max Weber. The realization that monetary benefits is not the only motivator for workers, and the notion that workers thrive in informal groups, became the foundation for the human resource trend for organizations (Winder, 2003).

Chester I. Barnard, The Functions of the Executive (1938)

Chester Barnard book emphasized a descriptive rather than prescriptive approach to management. Moving away from the more technical focus of earlier theorists, he presented a social and psychological focus on a system of leadership that included effective organizational communication and the importance of motivating workers.

Barnard's book has had a great influence on organizational management and theory. His focus on the whole organizational system provides a holistic approach to management that has influenced later management practices. It can be argued that organizations must pay attention to the needs of the workers in orders to become successful companies. This view of effective management as a balance of art and science resonates well with modern management thinking (Mahoney, 2002).

Fritz J. Roethlisberger and William J. Dickson (with the assistance of Harold A. Wright), Management and the Worker (1939)

In this book, Roethlisberger and Dickson (with the assistance of Wright) wrote an official account of the Hawthorne studies that were conducted over a total of nine years with workers at the Western Electric Company in Cicero, Illinois. Roethlisberger was Elton Mayo's protégé at the time of the studies. The studies initially set out to measure workers' productivity through various behavioral

experiments such as changing the light levels in assembly rooms and varying workers' rest times. A team of scientists observed and recorded the changes to worker efficiency. The findings suggested that personal attention and close interaction with supervisors and work teams had larger effect on productivity than any of the variables tested.

In spite of some criticism, such as claims of lacking proper methodology, The Hawthorne studies have provided much valuable insight to modern management thinkers. The importance of worker/supervisor interaction, for instance, has led to more research on the internal aspects of organizations. Additionally, the studies helped increase legitimacy to sociological and psychological research and social science as a valid field of study. This has led to a growing interest in studies of worker motivation in organizations (Muldoon, 2012).

Herbert A. Simon, *Administrative Behavior: A Study of Decision-Making Processes in Administrative Organizations* (1947)

Herbert Simon claimed in this book that the key to understanding organizations is to understand the way people make decisions. Decision-making in an organization is comprised of two separate sides. On the one hand is the ideal and rational side of decision-making, the way things should be. On the other hand you have the realistic side, or the way it tends to get done. He named these the *Economic Man* and the *Administrative Man*, respectively.

Herbert Simon's book has had great influence on modern management thinking and helped earn him a Nobel Prize in economics about 30 years after the book's first publication. The Nobel committee called it "epoch-making" in its approach to organizational systems (The Prize in Economics 1978 - Press Release). Management researchers have also noted the impact of this book on modern organizational management thinking. Some areas of influence include organizational learning and knowledge, the sociology of economic activity, transaction cost economics, and organizational co-ordination and decision making (Kerr, 2011).

George C. Homans, *The Human Group* (1950)

In *The Human Group*, Homans examined the social organization of small groups. After developing a framework for understanding how small groups function within external systems, and specifically how these reflect the larger society, he applied his theories to five separate groups that had been thoroughly studied by other researchers: two of the groups featured in the Hawthorne studies, an American street gang, a Polynesian family, and a small New England town.

The Human Group became a classic within the field of sociology and later gave rise to Homans' social exchange theory. It has been a model for development of other theories in sociology and can be considered a detailed manual of how to

apply theoretical concepts to observational studies (Treviño, 2009). Even though later works by Homans made a greater impact on the field of management, The Human Group has influenced studies of group dynamics in organizational development, human resource management, and team processes among others.

Peter F. Drucker, The Practice of Management (1954)

Abraham H. Maslow, Motivation and Personality (1954)

Chris Argyris, Personality and Organization: The Conflict between System and the Individual (1957)

James G. March and Herbert A. Simon (with the assistance of Harold Guetzkow), Organizations (1958)

Frederick Herzberg, Bernard Mausner, and Barbara B. Snyderman, The Motivation to Work (1959)

Douglas M. McGregor, The Human Side of Enterprise (1960)

David C. McClelland, The Achieving Society (1961)

Rensis Likert, New Patterns of Management (1961)

Tom Burns and George M. Stalker , The Management of Innovation (1961)

The books we have examined in this current study do in fact influence the modern management literature, despite the ages of these books. Many of the contributions of themes and concepts found on the pages of these most influential books of the 20th Century are proved by countless articles, books, and professional papers which continue to cite them decade after decade. One point in particular is from (Dankbar 2003) "The Management of Innovation" which has been cited for decades in the literature. In volume 7 of a "Series on Technology Management," the book Innovation Management in the Knowledge Economy a passage argues, "On the other hand, there is an equally important line of thinking in the literature on innovation management, which emphasizes the need for an environment in which organic structure prevail (Burns & Stalker 1961)." That early work cited nine references, and "The Management of Innovation" was second in the list. Moreover, in a more recent chapter from Ashworth's, Boyne's and Entwistle's (2010) edited a book. Burns and Stalker (1961) can be found in the reference. The point in all this is that fact that Burns and Stalker are continuing to influence the literature.

Alfred D. Chandler, Jr., Strategy and Structure: Chapters in the History of American Enterprise (1962)

Schulze and Gedajlove (2010, p191-204) went as far as to quote Chandler directly that:

...Chandler, in particular, viewed the development of the professional-managed corporation as a necessary adaptive response to the impact of technology and market growth on the modern corporation. His strategy and structure (Chandler 1962) documented how improvement in technology and transportation increased the efficient scale and scope of modern enterprise to the point where radical changes in strategy and structure made professional management critical.

The above passage is an indication that Chandler's influence on management thinking has contributed to the integration and adaptation of technology within modern corporations. Furthermore, Mangaliso and Lewis (2014) supported the same claim in their book as follows: "The evolution of Strategic Management can be traced to the great books of strategy based on the seminal works of Andrews(1971), Ansoff (1965), Chandler(1962), ..."

Richard M. Cyert and James G. March, A Behavioral Theory of the Firm (1963)

This book presented an innovative approach to closed-versus open-system. Due to its importance, many modern researchers use it as a reference for their papers. To illustrate, Thompson credited "A Behavioral Theory of the Firm" stating: "Meanwhile, a series and sustained elaboration of Barnard's work (Simon, 1957a; March and Simon, 1958; Cyert and March, 1963) has produced a newer tradition which evades the closed-versus open-system dilemma." He also argued that: "What emerges from the Simon-March-Cyert stream of study is the organization as a problem-facing and problem-solving phenomenon." Furthermore, Angier and March (2011) mentioned in the Preface of their book "The Roots, Rituals, Schools After the Second World War" that Richard M. Cyert was one of the most important role players in history.

Joan Woodward, Industrial Organization: Theory and Practice (1965)

"Industrial Organization: Theory and Practice" deals mainly with the methods of organization and organizational structure. It is still widely used to solidify research papers. For instance, Cudanov , Savoin, and Jasko (2012), published a paper that deals with the utilization of technology learning tools. In that paper, they hinted the vitality of Woodward's work by citing: "But the groundbreaking work was that of Joan Woodward [3], in which relations where established between the success of the organization and conforming of the organization structure..."

Daniel Katz and Robert L. Khan, The Social Psychology of Organizations (1966)

This book is common between the new and old age of researchers. It is still widely used to influence and guide researchers through their work. To illustrate, Amagoh (2008) cited in his publication "Perspectives on Organizational Change: Systems and Complexity Theories": "In their 1966 work, Katz and Khan identified the following nine characteristics of open system as applied organizations..." Furthermore, Ocheni, Atakpa and Nwankwo, (2012, p 119-130)published an

article in the European Journal of Business and Social Sciences ,citing the book in one of their references, Hence, exhibiting its vitality in the modern world.

Paul R. Lawrence and Jay W. Lorsch, Organization and Environment: Managing Differentiation and Integration (1967)

This book influenced many researchers, one of which was Jisun Yu. Yu (2008) published an article in the proceeding of the Annual Conference of the administrative Science of Canada in page 55 "Toward an Understanding of Managing Local Adaption of Practice 2" of "Managing Differentiation and Integration." Within that article, he hinted the importance of Lawrence's and Lorsch's work by citing: "Organized theorists argue that the goal of an organized adaptation is for an organization to achieve a goodness of fit with environmental challenges, and thus to improve its survival potential." (Lawrence & Lorsch 1967).

James D. Thompson, Organizations in Actions (1967)

The importance of this book was exhibited by Bess and Dee (2008), in their book, "Understanding College and University Organization." They stated: "Many positivist organizational theories were developed in the 1960s by researchers who found consistent connections between configurations of organizational structure and the external environment (Burns &Stalker, 1961; Lawerence & Lorsch, 1967; Thompson, 1967)."

Michael E. Porter, Competitive Strategy: Techniques for Analyzing Industries and Competitors (1980)

The importance of this book is mirrored by Raphael Amit and Paul Schoemaker (1993,p33-46) in their paper "Strategies and Organizational Rent" as follows: "The resource perspective complements the industry analysis Framework (Porter, 1980,...)" Moreover, Carlsson (1995) referred in the Introduction of his book "Technological Systems and Economic Performance: The Case of Factory Automation" its importance: "It takes as its starting point the model of competitive strategy suggested by Michael Porter (1980) with particular emphasis on the notion of strategies group...)."

W. Edwards Deming, Quality, Productivity and Competitive Position (1982)

Deming is considered one of the fathers of the Total Quality Management (TQM). He postulated the fourteen obligations of management as well as the seven deadly sins in the quality management. Even though Deming principles were applied to companies, they can extend their application to Software Development; hence, making it a very essential reference in the modern age. To illustrate, Li, Chen, and Cheung (2000,p 35-41)cited the application of Deming's principles in their paper: "Total Quality Management in Software Development" as follows: "Throughout the postwar 50's, W. Edwards Deming [1981, 1982, 1986] took his knowledge of organization-wide quality control for fledgling Japanese business..."

Upward Trends in 25 Management Books' Influence

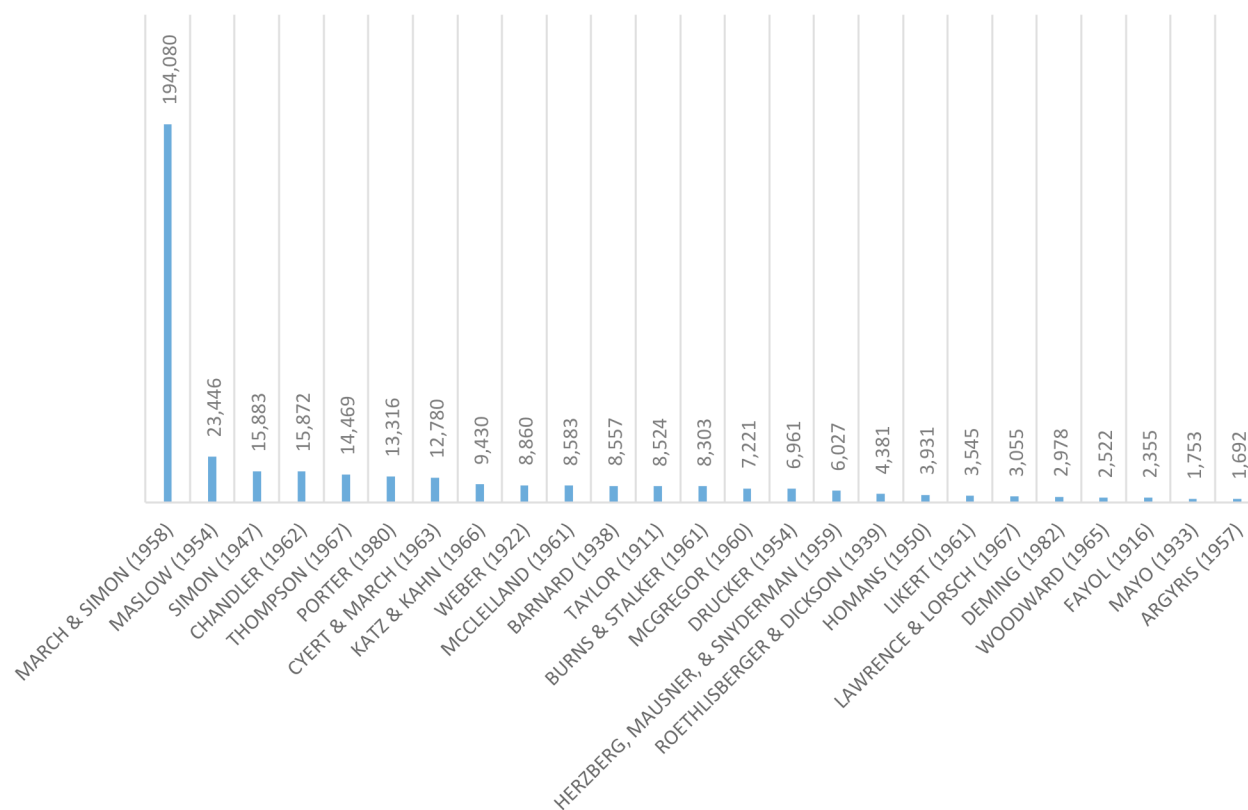
Table 1 illustrates the number documents found from the Google Scholar custom range search results for 25 management books deemed most influential. All search terms were entered into the search window on August 8, 2015 in quotation marks in order for the algorithms to search specifically for the terms, and nothing else. The search, therefore, for Maslow's "Personality and Motivation," Taylor's "Principles of scientific Management," Weber's "The Theory of Social and Economic Organization," and Barnard's "The Functions of the Executive," and so on yielded interesting results for the 10 periods examined, 5-years each. Notice in Table 1 that pioneering authors for each of these 25 books is listed. Moreover, there are 10 periods, with dates from 1963-1967 to 2008-2012. Each period corresponds to the total number of published documents found for that period under each theory in a Google Scholar search. For example, in period 1963-1967 there were 120 published documents found in the Google search results for that period when McGregor "The Human Side of the Enterprise" were the search terms. When Maslow "Motivation and Personality" were the search terms for period 2008-2012 there were 9,360 document results. When Barnard "The Functions of the Executive" were the search terms for period 1998-2002, there were 388,524 document results. Table 1 illustrates 250 such Google Scholar searches. The initial view of the data is an apparent upward trend in the utility of these eight most influential management books of the 20th century.

<p style="text-align: center;">Table 1</p> <p style="text-align: center;">Google Scholar Documents for Most Influential Management Books of the 20th Century</p> <p style="text-align: center;">across 10 Periods over 50 Years</p>												
Most Influential Management Books of the 20th Century	1963-1967	1968-1972	1973-1977	1978-1982	1983-1987	1988-1992	1993-1997	1998-2002	2003-2007	2008-2012	Book Total	Book Avg.
Titles and Author(s)												
March & Simon (1958)	1,690	3,170	4,250	5,260	7,210	12,000	17,800	38,300	56,400	48,000	194,080	19,408
Maslow (1954)	192	476	821	869	878	1,180	1,510	2,590	5,570	9,360	23,446	2,345
Simon (1947)	293	445	539	657	789	1,030	1,320	2,240	3,500	5,070	15,883	1,588
Chandler (1962)	50	143	240	455	725	969	1,390	2,230	3,940	5,730	15,872	1,587
Thompson (1967)	34	217	553	865	920	1,070	1,430	2,010	3,170	4,200	14,469	1,447
Porter (1980)	-	-	-	40	174	391	701	1,550	3,990	6,470	13,316	1,332
Cyert & March (1963)	216	309	461	537	589	698	1,000	1,670	2,930	4,370	12,780	1,278
Katz & Kahn (1966)	37	264	439	560	557	620	763	1,090	1,980	3,120	9,430	943
Weber (1922)	213	343	432	487	479	568	798	1,060	1,750	2,730	8,860	886
McClelland (1961)	292	465	469	391	424	502	616	934	1,710	2,780	8,583	858
Barnard (1938)	188	260	273	289	367	536	704	1,110	1,970	2,860	8,557	856
Taylor (1911)	43	66	133	196	281	384	741	1,220	2,160	3,300	8,524	852
Burns & Stalker (1961)	55	171	310	334	373	542	728	1,220	1,870	2,700	8,303	830
McGregor (1960)	120	301	455	350	370	473	552	830	1,460	2,310	7,221	722
Drucker (1954)	101	133	192	186	192	246	409	822	1,640	3,040	6,961	696
Herzberg, Mausner, & Snyderman, (1959)	114	190	281	205	232	254	288	523	1,300	2,640	6,027	603
Roethlisberger & Dickson (1939)	147	183	221	238	252	331	382	609	908	1,110	4,381	438
Homans (1950)	287	348	317	256	246	269	319	451	651	787	3,931	393
Likert (1961)	196	352	350	299	245	238	280	341	541	703	3,545	355
Lawrence & Lorsch (1967)	16	28	73	96	105	175	237	409	806	1,110	3,055	306

Deming (1982)	-	-	-	7	84	243	461	514	717	952	2,978	298
Woodward (1965)	28	96	177	225	197	223	234	312	457	573	2,522	252
Fayol (1916)	25	43	70	58	114	113	220	354	543	815	2,355	236
Mayo (1933)	31	41	47	50	87	82	127	168	463	657	1,753	175
Argyris (1957)	98	139	183	155	126	115	139	157	240	340	1,692	169
Period Total	4,466	8,183	11,286	13,065	16,016	23,252	33,149	62,714	100,666	115,727	388,524	
Period Avg.	179	327	451	523	641	930	1,326	2,509	4,027	4,629		

Frederick W. Taylor, *The Principles of Scientific Management* (1911); Henri Fayol, *General and Industrial Management* (1916); Max Weber, *The Theory of Social and Economic Organization* (1922); Elton Mayo, *The Human Problems of an Industrial Civilization* (1933); Chester I. Barnard, *The Functions of the Executive* (1938); Fritz J. Roethlisberger and William J. Dickson (with the assistance of Harold A. Wright), *Management and the Worker* (1939); Herbert A. Simon, *Administrative Behavior: A Study of Decision-Making Processes in Administrative Organizations* (1947); George C. Homans, *The Human Group* (1950); Peter F. Drucker, *The Practice of Management* (1954); Abraham H. Maslow, *Motivation and Personality* (1954); Chris Argyris, *Personality and Organization: The Conflict between System and the Individual* (1957); James G. March and Herbert A. Simon (with the assistance of Harold Guetzkow), *Organizations* (1958); Frederick Herzberg, Bernard Mausner, and Barbara B. Snyderman, *The Motivation to Work* (1959); Douglas M. McGregor, *The Human Side of Enterprise* (1960); David C. McClelland, *The Achieving Society* (1961); Rensis Likert, *New Patterns of Management* (1961); Tom Burns and George M. Stalker, *The Management of Innovation* (1961); Alfred D. Chandler, Jr., *Strategy and Structure: Chapters in the History of American Enterprise* (1962); Richard M. Cyert and James G. March, *A Behavioral Theory of the Firm* (1963); Joan Woodward, *Industrial Organization: Theory and Practice* (1965); Daniel Katz and Robert L. Kahn, *The Social Psychology of Organizations* (1966); Paul R. Lawrence and Jay W. Lorsch, *Organization and Environment: Managing Differentiation and Integration* (1967); James D. Thompson, *Organizations in Action* (1967); Michael E. Porter, *Competitive Strategy: Techniques for Analyzing Industries and Competitors* (1980); W. Edwards Deming, *Quality, Productivity and Competitive Position* (1982)

FIGURE 1
MOST INFLUENTIAL BOOKS TOTALS
1963-2012



20th Century Management Books Not Viewed as Most Influential, but Important

Table 2 illustrates search terms were entered into the search window on August 8, 2015 in quotation marks in order for the algorithms to search specifically for the terms, and nothing else. Table 2 illustrates 80 such Google Scholar searches. The initial view of the data is an apparent upward trend in the utility of these eight most influential management books of the 20th century.

<p>Table 2</p> <p>Google Scholar Search Results for Popular Management Books of the 20th Century used as Comparison</p> <p>across 10 Periods over 50 Years</p>												
Popular Management Books of the 20 th Century used as Comparison Group	1963-1967	1968-1972	1973-1977	1978-1982	1983-1987	1988-1992	1993-1997	1998-2002	2003-2007	2008-2012	Book Total	Book Avg.
Titles and Author(s)												
Weber, (1958)	203	304	410	545	684	1,030	1,540	2,560	4,290	6,570	18,136	1,814
Blake & Mouton (1964)	60	156	220	221	235	264	307	508	898	1,530	4,399	440
Carnegie, (1936)	15	28	30	68	60	93	119	220	410	729	1,772	177
Drucker, (1936)	37	46	54	40	48	44	87	165	290	427	1,238	124
Galbraith, (1954)	15	25	21	21	31	50	48	113	191	565	1,080	108
Kepner & Tregoe, (1965)	25	26	44	43	48	61	59	61	80	118	565	57
Parkinson, (1957)	21	10	20	13	17	16	24	22	22	27	192	19
Brooks (1964)	7	10	5	9	10	5	4	13	9	6	78	8
Period Total	383	605	804	960	1,133	1,563	2,188	3,662	6,190	9,972	27,460	
	48	76	101	120	142	195	274	458	774	1,247		
<p>Max Weber, <i>The Protestant Ethic and the Spirit of Capitalism</i> (1958); Robert R. Blake & Jane S. Mouton, <i>The Managerial Grid</i> (1964); Dale Carnegie, <i>How to Win Friends and Influence People</i> (1936); Peter F. Drucker, <i>Managing for Results</i> (1936); John Kenneth Galbraith, <i>The Great Crash-1929</i> (1954); Charles H. Kepner & Benjamin B. Tregoe, <i>The Rational Manager</i> (1965); C. Northcote Parkinson, <i>Parkinson's Law and Other Studies in Administration</i> (1957); Thomas R. Brooks, <i>Toil and Trouble: A History of American labor</i> (1964)</p>												

FIGURE 2
COMPARISON BOOKS TOTALS
1963-2012

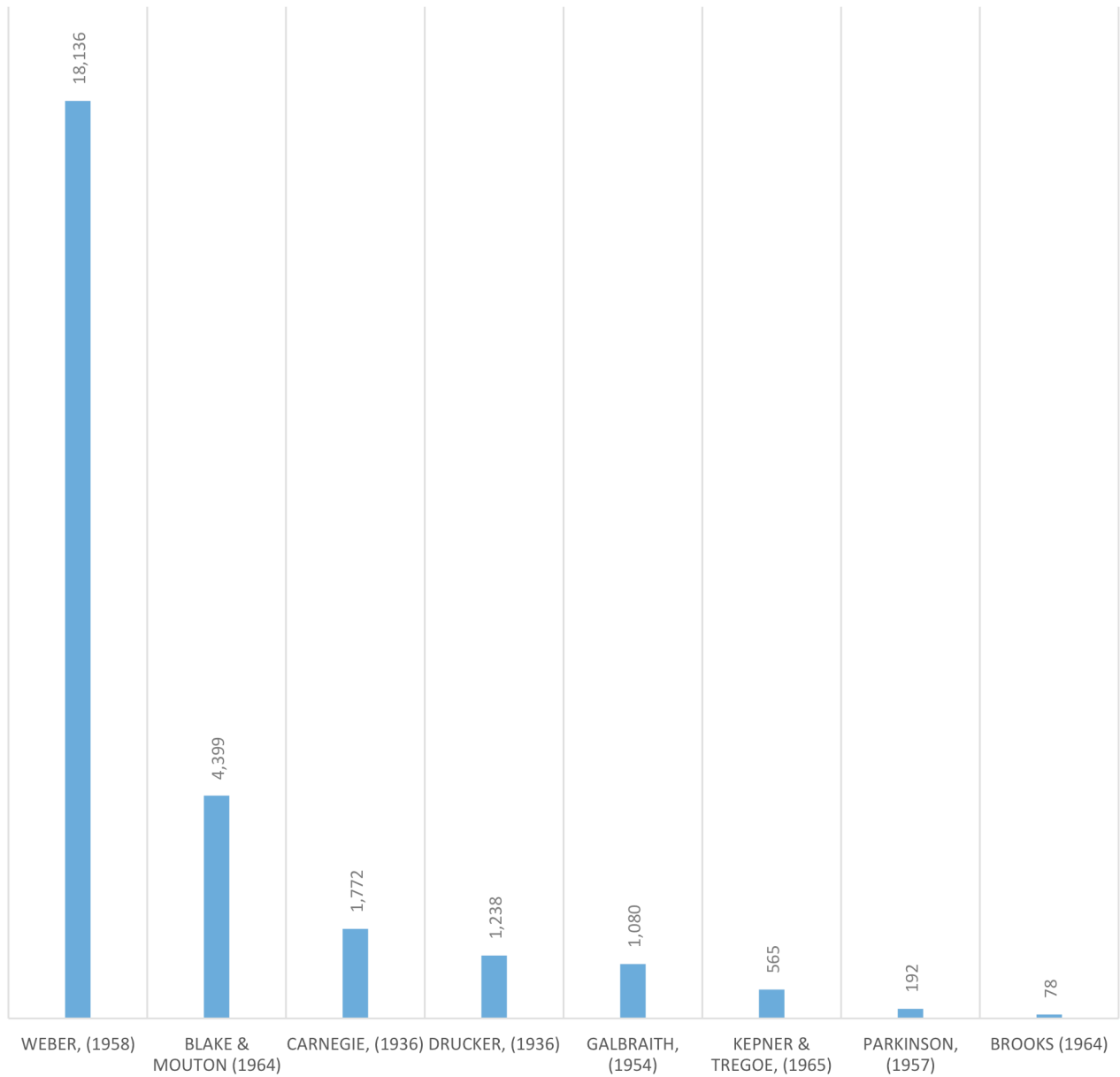


FIGURE 3
DOCUMENTS BY QUARTER CENTURY

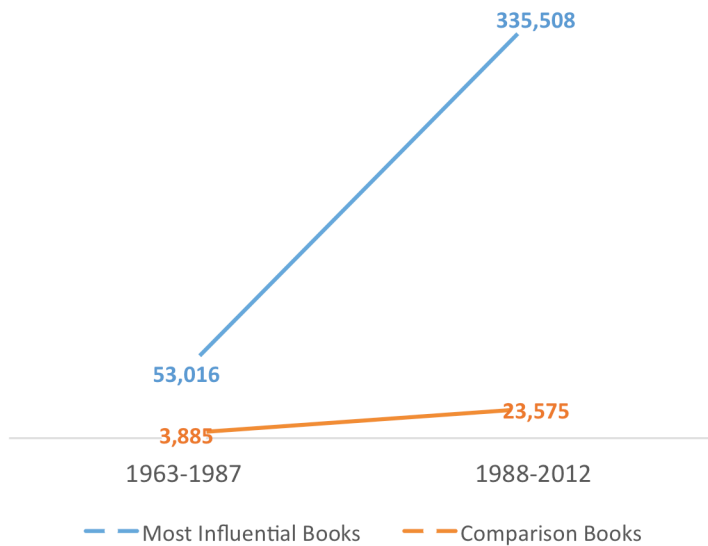
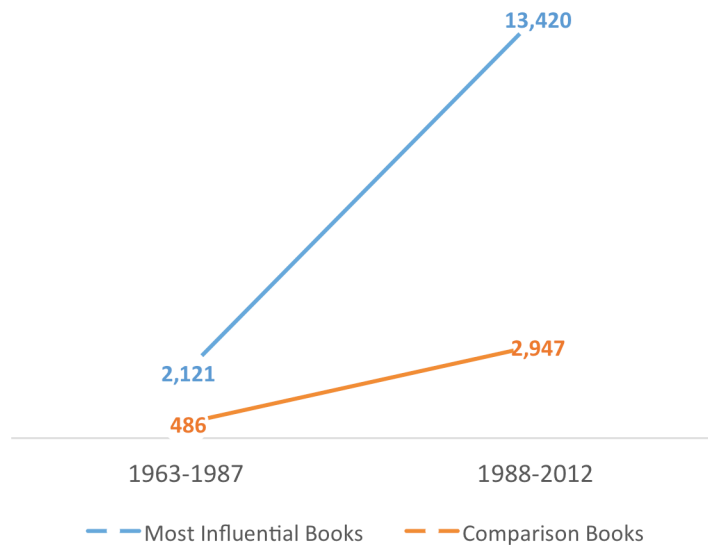


FIGURE 4
DOCUMENT AVGS. BY QUARTER CENTURY



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APPENDIX 1

Bedeian's and Wren's (2001) "Most Influential Management Books of the 20th Century"

1. Frederick W. Taylor, *The Principles of Scientific Management* (1911)
2. Henri Fayol, *General and Industrial Management* (1916)
3. Max Weber, *The Theory of Social and Economic Organization* (1922)
4. Elton Mayo, *The Human Problems of an Industrial Civilization* (1933)
5. Chester I. Barnard, *The Functions of the Executive* (1938)
6. Fritz J. Roethlisberger and William J. Dickson (with the assistance of Harold A. Wright), *Management and the Worker* (1939)
7. Herbert A. Simon, *Administrative Behavior: A Study of Decision-Making Processes in Administrative Organizations* (1947)
8. George C. Homans, *The Human Group* (1950)
9. Peter F. Drucker, *The Practice of Management* (1954)
10. Abraham H. Maslow, *Motivation and Personality* (1954)
11. Chris Argyris, *Personality and Organization: The Conflict between System and the Individual* (1957)
12. James G. March and Herbert A. Simon (with the assistance of Harold Guetzkow), *Organizations* (1958)
13. Frederick Herzberg, Bernard Mausner, and Barbara B. Snyderman, *The Motivation to Work* (1959)
14. Douglas M. McGregor, *The Human Side of Enterprise* (1960)
15. David C. McClelland, *The Achieving Society* (1961)
16. Rensis Likert, *New Patterns of Management* (1961)
17. Tom Burns and George M. Stalker, *The Management of Innovation* (1961)
18. Alfred D. Chandler, Jr., *Strategy and Structure: Chapters in the History of American Enterprise* (1962)
19. Richard M. Cyert and James G. March, *A Behavioral Theory of the Firm* (1963)
20. Joan Woodward, *Industrial Organization: Theory and Practice* (1965)
21. Daniel Katz and Robert L. Kahn, *The Social Psychology of Organizations* (1966)
22. Paul R. Lawrence and Jay W. Lorsch, *Organization and Environment: Managing Differentiation and Integration* (1967)
23. James D. Thompson, *Organizations in Action* (1967)
24. Michael E. Porter, *Competitive Strategy: Techniques for Analyzing Industries and Competitors* (1980)
25. W. Edwards Deming, *Quality, Productivity and Competitive Position* (1982)

LARPing IT UP: AN INNOVATIVE CLASSROOM EXERCISE ABOUT STOCK OPTIONS UTILIZING STUDENT ROLE PLAYING

Frank J. Cavaliere

Lamar University
Beaumont, Texas

Toni P. Mulvaney*

Lamar University
Beaumont, Texas

toni.mulvaney@lamar.edu

Delvin D. Seawright

Lamar University
Beaumont, Texas

Marleen R. Swerdlow

Lamar University
Beaumont, Texas

*Corresponding Author

ABSTRACT

This paper deals with a classroom exercise concerning two timely topics—stock options and LARPs (Live Action Role Playing). Stock options were originally touted as incentive for employees to work hard in order to elevate stock prices. More recently, they have been the subject of considerable controversy, having been criticized as causing a variety of ills such as offshoring manufacturing plants to countries with much lower wage rates, excessive compensation for executives, and increasing income inequality in the United States today. Our students, most of them millennials, are quite familiar with LARPs. A LARP allows participants to act out their characters' actions. The players pursue goals within a fictional setting represented by the real world while interacting with each other in character. In our classroom LARP, students will be assigned roles from a variety of stakeholders with legitimate interests affected by the use of stock options by a fictional American corporation that is considering offshoring one of its existing domestic plants. These roles may include the inside/outside director, the hedge fund manager with a large stake in the company, the mayors of the towns where the plant is located or could be relocated, a national politician, and a member of the United States Chamber of Commerce. The number of stakeholders can be expanded infinitely as these topics are important to almost every aspect of society today. Students must decide whether the closing of the plant is a reasonable action from the perspective of the stakeholder they represent, taking into consideration the history of stock options, Wall Street's attitude toward plant closings, the social costs associated with plant closings, the efficacy of stock buy-back plans, and the ethics of the proposed plant closing and its relationship to stock options. It is hoped that this exercise will not lead simply to innovative teaching, but rather will enhance and impact student learning because the students will be educating themselves about the perspectives of their particular stakeholder, interacting with other students, and engaging in an after-action report where there will be a group discussion about the pros and cons of the various views expressed.

KEYWORDS: Stock options, Role playing, Chamber of Commerce, stakeholders, Wall Street

INTRODUCTION

One of the most popular political themes today is income inequality – the gap in pay between the rich and poor. Criticism of hedge fund and corporate executive compensation has been a mainstay of politicians such as President Barack Obama, Senator Bernie Sanders, Hillary Clinton, and Donald Trump. In a 2013 speech President Obama expressed this sentiment:

[I]t's not surprising that the American people's frustrations with Washington are at an all-time high. But we know that people's frustrations run deeper than these most recent political battles. Their frustration is rooted in their own daily battles — to make ends meet, to pay for college, buy a home, save for retirement. It's rooted in the nagging sense that no matter how hard they work, the deck is stacked against them. And it's rooted in the fear that their kids won't be better off than they were. They may not follow the constant back-and-forth in Washington or all the policy details, but they experience in a very personal way the relentless, decades-long trend that I want to spend some time talking about today. And that is a dangerous and growing inequality and lack of upward mobility that has jeopardized middle-class America's basic bargain — that if you work hard, you have a chance to get ahead (Politico, 2013).

This paper will suggest an innovative approach to student learning by engaging students in a role-playing exercise that addresses the topical issue of income inequality. It requires the students to immerse themselves in the core issues many blame for the current crisis of income inequality. These issues include offshoring and plant closings, executive and director compensation, particularly due to the granting of stock options, divided board of director loyalties, the primacy of Delaware in matters of corporate governance, the business judgment rule, the fiduciary duties of top business managers and directors, and economic nationalism. Students will assume the roles of various players who characterize the faces behind these key issues.

Part 1 – The Issues

In a typical business class, such as Employment Law, students are introduced to many issues. The following sections will discuss a few legal concepts pertinent to the LARP exercise.

The Primary Issue – Stock Price Over Everything Else?

When the compensation plan for Walt Disney CEO Michael Eisner was announced in 1997, there was outrage in many circles. According to a story in the Chicago Times: "Eisner will receive a comparatively low base salary of \$750,000 and an annual bonus based on growth in earnings per share above 7.5 percent. Eisner's bonus last year was \$7.9 million. He also was given options on 8 million shares of Disney stock that he can exercise during the final three years of his contract. The

ultimate value of those options, which the company estimated at \$196 million, will depend on the company's market performance during the next decade" (Schodolski, 1996).

Not only are stock options a boon to corporate officers; they have also become a staple for outside director compensation. Outside directors are those members of the board of directors who are not, otherwise, employees of the company. A 2012 newsletter from a benefits compensation firm states: "Annual cash retainers for directors increased in 2011, to a median value of \$75,000, while stock compensation rose 10%, to a median value of \$131,900" (MyStockOptions.com 2012). How many hours do outside directors work as directors? There are many directors who serve on multiple boards; some while holding down full-time jobs. A recent news story about USC Athletic Director Pat Haden quotes him as follows: "You can't work any more at this job than I do" (Pringle & Fenno, 2015). Being the Athletic Director of one of the most sports-competitive schools in the nation would seem to bear out that statement. The article goes on to say, however: "But he also juggles extensive obligations outside USC as a member of more than a dozen corporate and nonprofit boards, side work that pays him at least a half-million dollars a year (including stock options and share awards), a Times review of proxy statements and federal tax records has found" (Pringle & Fenno, 2015).

Excessive Executive Compensation

Executive compensation at United States companies has skyrocketed since 1978 as evidenced by it having grown 127 times faster than the pay of workers (Fairchild, 2013). Fairchild (2013) also states that an increase of 1,000 percent in the ratio of CEO-to-worker compensation has taken place since 1950. Excessive executive compensation has drawn the attention and ire of many stakeholders, including the Financial Accounting Standards Board which requires the expensing of the value of stock options held by employees (Conyon, Fernandes, Ferreira, Matos, & Murphy, 2011). Such accounting treatment reduces the amount of earnings reported by companies and has implications for earnings-sensitive performance measures. In light of such implications, options-based compensation is being increasingly replaced by restricted stock shares, as evidenced by a decline over the years (from 88% in 2001 to 67% in 2009) in the percentage of companies granting stock options compared to an increase (from 24% in 2001 to 75% in 2009) in the percentage of companies awarding restricted stock grants (Conyon et al., 2011).

Background on Stock Options

Stock options are contractual agreements that provide employees of a company with the right to purchase a specified number of the company's stock at a fixed price within a definite period of time, usually ten years. Options-based compensation in the U.S. dates back to the early 20th century in the 1920s (Conyon et al., 2011). It was viewed as a good way to incentivize a publicly traded

company's management to align its interests with those interests of the company's shareholders (Haugen & Senbet, 1981). This incentivizing was believed to be needed due to conflicts that arise between a company's owners and managers due to the separation of ownership and control of the company (Jensen & Meckling, 1976). Such conflicts or agency costs may arise due to disagreements regarding issues such as the payment of dividends or the ideal size of the company (Jensen, 1986). By including options-based compensation as part of managers' compensation, it was believed those managers would not shirk on their responsibilities as managers or engage in managerial behavior and activities that would benefit themselves, but rather would work in the best interest of the shareholders (Haugen & Senbet, 1981). This rationale should be kept in mind when considering the so-called fiduciary responsibility of managers and directors.

Options-based Compensation and Taxation

Since its early years, the use of options-based compensation has been rather sensitive to income tax policy (Conyon et al., 2011). Determining whether options would be taxed as ordinary income upon being exercised or as capital gains upon selling the stock purchased when the options were exercised was of great interest to many (Conyon et al., 2011). In 1946, the Supreme Court ruled that the gain upon exercising stock options is compensation and should be taxed as ordinary income (Conyon et al., 2011). Given the exorbitant marginal income tax rates (highest, 91%) on ordinary income at that time, restricted stock units (RSUs) were created by Congress to ease the taxation issues by allowing taxes (capital gains) to be owed only after the selling of the stocks initially purchased when the options were exercised (Conyon et al., 2011).

RSUs are a form of equity compensation offered by a company to its employees. Employees are awarded stock in accordance with a vesting schedule, with stock distribution taking place after certain requirements are met. A fair market value is assigned to RSUs when they vest. Once vesting has occurred, those RSUs are deemed income, and it is common practice that the income taxes on those shares are paid by withholding a portion of those shares. And, once the employee sells the remaining shares, capital gains taxes are assessed ("Restricted Stock Unit", n.d.).

The Effect of Stock Options on Executive Compensation

Over the last two decades, executive compensation (in particular, stock options) has risen sharply (Frydman & Saks, 2010) due in part to a U.S. tax code change in 1993 that capped executive compensation deductions at \$1 million (Conyon et al., 2011). The change in the code was partly responsible for sparking a sharp increase in the use of option-based compensation given that stock options were explicitly excluded from the \$1 million executive compensation ceiling (Conyon et al. 2011). Just a few years after the change, options comprised the largest individual component of compensation for CEOs of S&P 500 companies and

(even comprised greater than half of their total compensation by the year 2000 Conyon et al., 2011).

Options-Based Compensation and Aggressive Managerial Behavior

Options-based compensation has received much attention from researchers concerned with executive compensation sensitivity to stock price, and aggressive managerial behavior. DeFusco, Johnson, and Zorn (1990) suggest aggressive managerial behavior in the form of increased risk-taking is encouraged by options-based compensation. The authors go on to suggest that such behavior leads to a wealth transfer from bondholders to shareholders. The sensitivity of options-based managerial compensation to stock price has been documented in the accounting and finance literatures as encouraging managers to engage in accounting practices that are aggressive in an effort to meet earnings targets (Burns & Kedia, 2006). Meeting or beating those earnings targets are likely to lead to a favorable reaction by stock market participants. Bergstresser and Philippon (2006) document the use of accounting accruals to manipulate reported earnings in firms in which the executive compensation of the CEO is closely linked to the values of stock and options. Burns and Kedia (2006) document a firm's propensity to misreport its financials when the options holdings of the CEO are sensitive to stock price.

Ancillary Issues

Fiduciary Duty and the Primacy of Delaware

The term "fiduciary" comes from Roman law, and means "a person holding the character of a trustee, or a character analogous of a trustee, in respect to the trust and confidence involved in it and the scrupulous good faith and candor which it requires. Fiduciaries have a duty to act primarily for the benefit of another. Serving as a director of a corporation is an undertaking that carries a duty of care to "conduct themselves on behalf of the corporation as a reasonably prudent person in the conduct of personal business affairs" (Cheeseman, 2004). Honest mistakes in judgment, not tainted by negligence, generally do not result in personal liability to members of the board. The reason for forgiving such honest mistakes is the "business judgment rule" (Cheeseman, 2004). "New Jersey was the early winner in the race by states to charter corporations. By 1900, 95 percent of the major corporations were chartered in New Jersey. The revenue results were so favorable that by 1905 New Jersey had eliminated all property taxes, had retired all debt, and had a treasury surplus of \$3 million. By 1912, most state corporation laws were modeled after New Jersey. Delaware had enacted an even more liberal law in 1899. However, few companies left New Jersey until Woodrow Wilson, the reform-minded president of Princeton University, was elected governor and argued for reform of the corporation law. Delaware emerged as the new home of the corporation. From 1913 to 1934, 31 percent of Delaware tax revenues came from incorporation fees and annual franchise taxes" (Sturdivant, 1985, p. 340-41).

The Business Judgment Rule

Under Delaware law—where the majority of corporate behavior in the United States is judged—breaches of fiduciary duty on the part of board directors is presumptively reviewed under the “business judgment” standard. Delaware’s courts are often criticized for favoring the directors over the sometimes competing interests of shareholders (Cavaliere, Mulvaney, & Veuleman, 2004). In an often-quoted critique of Delaware, William Cary wrote: “[T]he first step [for improving corporate law] is to escape from the present predicament in which a pygmy among the 50 states prescribes, interprets, and indeed denigrates national corporate policy as an incentive to encourage incorporations within its borders” (Cary, 1974). The “Delaware Effect” on corporate policy has been criticized as contributing to white-collar crime and corporate malfeasance as far back as Theodore Roosevelt and Ralph Nader. (Cavaliere et al, 2004).

Offshoring and Plant Closings

Presidential insurgents Bernie Sanders and Donald Trump are considered outsiders; Trump is a famous businessperson and media star and Sanders who many view to be an outright socialist. They both tend to agree that entering into serial trade agreements with other countries has hurt the American worker, resulting in the closing of thousands of factories and the loss of millions of jobs. Those jobs were often the path to middle-class prosperity for less educated American workers. The Bernie Sanders campaign Web site says as much, citing favorably to a Democrat proposal, Senate Bill S. 3816 called the “Creating American Jobs and Ending Offshoring Act”. Among other things, “the Act would provide tax cuts to companies that bring back outsourced jobs to the United States.” In addition, “To be eligible, businesses must certify that the U.S. employee is replacing an employee who had been performing similar duties overseas.” The legislation would also close loopholes that provide companies with tax breaks for outsourcing manufacturing jobs (S 3816, 2010).

From Bernie Sanders’ campaign site: “As president, Senator Bernie Sanders will reduce income and wealth inequality by: “Reversing trade policies like NAFTA, CAFTA, and PNTR with China that have driven down wages and caused the loss of millions of jobs. If corporate America wants us to buy their products they need to manufacture those products in this country, not in China or other low-wage countries” Income and Wealth Inequality, 2016).

Economic Nationalism versus Anationalism

The official Web site of the Trump campaign proudly proclaims: “Make America Great Again!” (www.donaldtrump.com). An article posted at that site states: “A major component will be a tough new approach to China, which he said has ‘emasculated’ the United States through trade and currency manipulation. ‘I’ve been working hard on the China thing,’ Trump said. ‘It’s astronomical what they have done to our country, to destroy the economics of our country. Astronomical.

It's the greatest theft in world history'" (Costa, Rucker, & Balz, 2015).

There are numerous critics of the Trump/Sanders approach to economic nationalism. "The economic nationalism promoted by Trump and Sanders may garner support along the campaign trail, but nevertheless makes little sense at the policy level. If implemented, these retaliatory trade policies would hurt the U.S. economy while at the same time invite damaging countermeasures by America's trading partners" (Lindell, 2015).

Should American companies be expected to be patriotic and concerned about the welfare of United States citizens. According to one older Business and Society text:

[S]ome multinationals aspire to anationalism, which, in the words of former Dow Chemical Company board chairman Carl A. Gerstacker, may be the major hope in the world today for economic cooperation among the peoples, for prosperity among the nations, for peace in our world. The truly anational corporation is possible only if it can be divorced from its mother country and thus no longer is a part of one culture or one nation. (Sturdivant, 1985, p. 209)

Part 2 – Enhancing Student Learning Through Role-Playing

What is a LARP?

The term LARP is an acronym for a Live Action Role-Playing game. These role-playing games allow participants to act out the actions of characters assigned to them within "a fictional setting represented by the real world while interacting with each other in character." ("Live action role-playing game", n.d.) AlthoughLARPs originated in the late 1970s in various continents. The independent groups shared a desire to move from genre fiction or tabletop role-playing to physically experiencing such settings. Therefore, they basedLARPs on "childhood games of make believe, play fighting, costume parties, roleplay simulations, *Commedia dell'arte*, improvisational theatre, psychodrama, military simulations, and historical reenactment groups." ("Live action role-playing game", n.d.) Their genres vary; some have themes and settings based in genre fiction, like fantasy involving magic, heroes, and fictional creatures, to realistic historic events or contemporary settings to futuristic environments. ("Live action role-playing game", n.d.)

LARPS can be limited to certain age players or open to all ages. They can be organized through schools, churches, or organizations. SomeLARPs require little preparation while others are designed and directed by a gamemaster; someLARPs last a few hours while others can last for years; and someLARPs have few participants while others can involve thousands of participants. ("Live action role-playing game", n.d.) The use ofLARPs has moved from just entertainment purposes to educational and political purposes. ("Live action role-playing game", n.d.) They are useful for educational purposes just as are board games, which have been

used in the area of military science, dating back to the 17th century, and video games, which have been used by the various military services since the late 1990s and have also been used in the business fields of management science and economics (Raybourn, 2014) and in MBA programs. ("You'd be Hard Pressed," 2013)

The designer of a game or LARP must create a story that allows the learners to become emotionally involved; their buy-in is important. The learners must be introduced to the characters and conflict or challenge, and eventually must be given the opportunity to resolve the situation. The interactive scenarios will allow the learners to become personally involved in the first person.

When learners are emotionally invested in the story and, in the case of training and education, see themselves as protagonists of their own training story, they remember it better and continue to respond to new or strategically repurposed content that is associated with familiar emotional triggers. (Raybourn, 2014)

Emotional investment and seeing yourself as the protagonist is the mainstay of a now-mainstream, but once radical school of acting, referred to as "the Method," or "method acting." While there are many definitions of "method acting," one of the best is from Oxford Dictionaries Online (n.d.): "A technique of acting in which an actor aspires to complete emotional identification with a part, based on the system evolved by Stanislavsky and brought into prominence in the US in the 1930s. Method acting was developed in institutions such as the Actors' Studio in New York City, notably by Elia Kazan and Lee Strasberg, and is particularly associated with actors such as Marlon Brando and Dustin Hoffman." The heyday for the method was in the 1950s and its emphasis on the actor's motivations has resulted in backlash and ridicule by some observers and fellow actors, but there is no denying that many of our most revered thespians have been followers of the Method. It is hoped that the identification with their "protagonists" will not cause any of the student players to too-closely identify with their role model as has been portrayed in several movies and television dramas such as Ronald Coleman's character's over-identification with Othello in the film "A Double Life." It is not clear whether Mr. Coleman was utilizing the Method while making this film, but that 1948 portrayal earned him his sole Academy Award for Best Actor.

Edu-Larping

A teacher who calls herself an "edu-larper", has researched larping, used it in her classroom, and has spent time with two Finnish larp scholars. She has listed elements of Nordic larp that could be used in the educational setting:

- 1) Immersion ("Players immerse themselves in their characters and in the micro-world that they create or agree upon, so players really become part of the narrative or learning and experience empathy for their character, having to understand his or her story, motivations and actions.")

- 2) 360 illusion ("Players can create scenography and costumes that look and feel like the real thing.")
- 3) Few mechanics ("Nordic larps are known to have fewer rules around how the larp is played than larps in the United States . . . Fewer rules means more freedom for the players.")
- 4) Improvisation ("Larp is related to drama and improvisational theatre. It differs in that the players are the participants as well as the audience. They don't perform for a separate audience, so the larp is just for themselves. It also differs from drama in that the players don't receive a script with pre-planned lines of dialogue and actions. They get to know their character and improvise [which] forces students to make decisions based on information they already have and what [their] character's motivation might be . . .") (METHOD IMMERSION)
- 5) Character development and narrative ("The growth of the character, his relationships to other characters, and the movement of the narrative is more important in Nordic larp than winning or having your character succeed . . .")
- 6) Collaboration vs. Competition ("Nordic larp is known for its collaborative nature with player working together to move the narrative whereas American Larps are more focused on competition-winning the battle, getting what your character wants. Both types of larps could be useful depending on what you're teaching.")
- 7) Debrief ("An essential element of Nordic larp and of educational larp is the post-larp debrief. As an emotional experience, and to ensure that the event isn't watered down to simply something fun, debriefing feelings, thoughts, analysis and the learning are key to making the larp meaningful. It's also vital that [students] get the chance to step back into themselves and out of their role.") ("You'd be Hard Pressed," 2013)

Our Classroom LARP

Students in an Employment Law course will participate in a LARP to introduce them to the pros and cons surrounding the use of stock options by American corporations of all sizes as compensation incentives to outside directors. The fact situation to be given to the students will be as follows: Entropy Corporation's Board of Directors is contemplating the shut-down of its plant in Anywhere, Ohio, and offshoring the work to India where the work can be done much more cheaply. This strategy has already been utilized by several of Entropy's competitors who have been able to undercut Entropy's price and take several points off its market share. Entropy has been very generous in the granting of stock options to its top executives and to its Board of Directors. Moving the plant will allow the company to lower its price, increase its profits, recapture market share, and institute a stock buy-back plan. Approximately 2,000 employees will be laid off from the Anywhere plant. The unemployment rate in Anywhere is already above the national average.

The students will be assigned roles from a list of stakeholders with legitimate interests affected by stock options. The list of potential stakeholders will include: the CEO/Chairman of the Board, an inside director who is not an officer, an outside director serving on the compensation committee, a hedge fund manager with a large stake in the corporation, a shareholder activist with one share of stock, the union, a rank-and-file employee, a small retail investor, a compensation consultant, the mayor of the town where the corporation's plant is located, an investigative reporter for a television news magazine, a reporter for a financial newspaper, the mayor of the town in the foreign country where the plant may be relocated, an environmental activist, national politicians from both the Democrat and Republican parties, and members of the United States and Anywhere Chambers of Commerce. Each student must research their stakeholder and stock options and how their stakeholder would react to the fact situation. They will then be required to role play from the standpoint of their assigned stakeholder and interact with the other students. Students should consider whether the closing of the plant is a reasonable action from the perspective of the stakeholder they represent, taking into consideration the history of stock options, Wall Street's attitude toward plant closings, the social costs associated with plant closings, the efficacy of stock buy-back plans, and the ethics of the proposed plant closing and its relationship to stock options.

Once the LARP has concluded, students will be given the opportunity to debrief and evaluate the exercise and what they learned from it and how that would have compared their learning experience to just reading about the issues in a text or hearing it from a lecture in a classroom.

CONCLUSION

Today's business student has much to learn in order to be prepared for the complicated intricacies of decision-making in the corporate environment today. Learning fundamental skills such as how to read a balance sheet, calculate the current value of cash, or do a Porter's analysis, is only part of a student's preparation. The business student's toolbox at graduation should include a business savvy for analyzing an issue critically from various perspectives. It should also include an ethical sensitivity toward and intuitive awareness of stakeholders' needs. Participating in a LARP and thereby "standing in the shoes" of one of those stakeholders is an excellent method for developing such necessary attributes. Students will do more than just read information and theory from the textbook, or hear a lecture from a professor. Assigned to a LARP, the students will research their roles, live them as they defend the interests of that stakeholder, and face confrontation from the perspectives and ideas of classmates playing the roles of other stakeholders. Thus, learning is enhanced as the experience requires more than "memorizing for a test"; rather, the experience impact the students in a more permanent fashion and becomes a lesson learned for life.

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ONLINE EDUCATION IN CHINESE UNIVERSITIES

Heng Tan

Visiting Scholar, Texas Southern University

Houston, TX, USA

heng.tan@tsu.edu

and

Zhongyuan University of Technology, China

S. Srinivasan*

Texas Southern University

Houston, TX, USA

srinis@tsu.edu

*Corresponding Author

ABSTRACT

Online education is becoming quite prevalent in Chinese universities now. Online courses are growing rapidly and have become the most important means to promote reform of higher education in China. In order to understand the way online education is evolving in Chinese universities, we will investigate the topic in the following ways: online course platform, curriculum development, management and maintenance programs, and application programs. Students in most Chinese universities reside on campus. Online education is currently used as an addendum to face-to-face education. Authorities have realized that through online education they can reach more students at various times of the day and students have the ability to learn more information than is possible in classroom instruction. The online instruction also allows the students to learn more about certain topics that are not offered in classroom instruction. The drawback is that Chinese students do not have the luxury of using their own computer systems at any time of day. Only some students have access to computer system of their own and others depend on the institutional computer labs which have restricted hours. Our analysis of the Chinese online educational experience is based on what is present now and our recommendations might be applicable to other countries which have similar resource constraints. The expected goal is to strengthen and improve the online course development, promote the reform of higher education and improve the quality of student training.

KEYWORDS: Online education, China, curriculum development, online platform

1. INTRODUCTION

1.1 Background

In USA online education is very common and is more advanced than the one offered in China. We have seen an enormous increase in student e-learners over the last decade. Ten years ago USA had about two million higher education students learning online (Akanegbu, 2012). That number has now almost quadrupled. According to a 2015 report by Babson Research titled "Tracking Online Education in the United States", the number of college students learning online now exceeds seven million. With the overall higher education student body in the U.S. currently at 21 million, this means that one out of three college students is taking at least one course entirely online (Aspillera, 2013). Although online education gives students unrivaled flexibility in pursuing a degree program, it is not suitable for everyone. Online education requires self-discipline and a set of study skills that some students may lack.

On February 3, 2015, the China Internet Network Information Center (CNNIC) issued the China Internet Development Statistics Report which showed that there are 649 million Internet users in China and the Internet penetration rate has reached 48% as of December 2014. Among the 649 million Chinese Internet users, the student group is the largest professional group. This constitutes 24% of all internet users in China. The computer network technology has a profound influence on the development of higher education. To take advantage of this opportunity Chinese colleges and universities are rapidly adopting online education. The new opportunities provide a change in the teaching pattern, offer a rich variety of teaching resources and meet the demands of personalized learning. The Chinese Ministry of Education has been paying great attention to the design and construction of online higher education. In this regard it has developed some guiding documents such as the "Education Revitalization Action Plan Facing the 21st Century" and the "Regulations of the Ministry of Education About Strengthening the Construction, Application and Management of Online Open Courses in Higher Education Institutions". These documents show how China actively promotes the application of online teaching in universities. After years of development, the online education has reached a decent level in Chinese universities. There is still plenty to be done to make online education useful and attractive to more students. The development level of online education in China is not up to international standards yet. To better serve teaching and improve the quality of higher education in China, it is essential to analyze the current status of online education.

1.2 Method

In order to perform the analysis we needed data. For this purpose we surveyed both students and instructors using an online questionnaire. The questionnaire was posted online for interested individuals to participate. In this pull method of questionnaire distribution, we noted that we lose control of who the participants are

and if any of them submitted multiple responses. Since this is not a high profile activity we did not think that there would be a concerted attempt to skew the responses. We reviewed and analyzed a large amount of domestic and international research achievements about online education in colleges and universities. One such topic is the design and use of online teaching platform. Another is the development and application of online courses. The last is the management and maintenance of online courses. In the survey, the students answered questions about the availability and reliability of the Internet connection. The respondents were college students and instructors in Henan province of China. This is the largest province in China with a population of over 100 million people. The survey respondents came from 31 colleges, including 24 public colleges, 4 private colleges and 3 independent colleges. In China, there are three different types of higher education institutions. Public colleges are organized by the state, Private colleges are formed by large businesses, social groups, other social organizations and individuals with non-state resources. Independent colleges are reflective of this classification type where the students can get their bachelor's degree by paying higher tuition. (Ji Cheng-jun, 2007). The important thing to note is that the teaching faculty for Independent colleges come from the Public colleges. Another major difference when compared to USA is that the instructors in public colleges were allowed to teach in multiple colleges at the same time, thus working in more than one institution concurrently. The survey elicited over 300 responses and the number of usable responses was 264. College freshmen did not participate in the survey. Majority of the respondents were college sophomores, juniors, seniors and graduate students. The following are the results obtained from the survey:

Number of male respondents:	98
Number of female respondents:	166
Percentage of male respondents:	37%
Percentage of female respondents:	63%
Percentage of sophomore participants:	9%
Percentage of junior participants:	57%
Percentage of senior participants:	23%
Percentage of students majoring in Arts:	76%
Percentage of students majoring in Science:	15%
Percentage of students majoring in Fine Arts & Music:	9%

The students use the online courses through the computer networks. According to the survey, 90.5% of the students have their own personal computers, of which 85.5% of students have a laptop. From the investigation about the use of network, we can see that 24.5% of students think it is very convenient to use internet at school, 57.5% of students think it's convenient, 18% of students think the network is not convenient. The survey also shows that more than 70% of students use personal computers to surf on the internet, less than 30% of students use the computers in lab or library. The time that 68.5% of students browse the internet is usually after 4 p.m. There is only a small percentage of students who connect to the internet prior to 4

p.m. because of network availability.

2. ONLINE TEACHING PLATFORM

2.1 Popularity

Universities in China have paid more attention to the creation of online teaching platforms. Almost 90% of universities have built or are building their own online teaching platform. The investment in this area is quite significant. The survey indicates that 60% of universities spent more than 300,000 Yuan on the construction of online teaching platform. Some universities spent more than 500,000 Yuan on buying a platform. These are significant sums in the Chinese context. Students in universities like to learn through the online teaching platform as a way to have their doubts cleared from the face-to-face lecture. There are more than 60% of the students who are glad to use the online teaching platform for self-paced learning and browsing the teaching resources. The rate of students using the online teaching platform to study course materials and finish their homework is 62.5%. In addition, 22.8% of the students are willing to use online teaching platform to communicate with teachers and 13.2% of students are willing to use online teaching platform to participate in discussions. Online teaching platform is a benefit for the students to gain knowledge about the details of the course content. It is also conducive to promote communication between teachers and students or between students.

Table 1. Main reasons for student use of online teaching platform

Purpose #	Studying/finishing their homework	Communicating with teachers	Discussion with each other	Other reasons
# of students	165	60	35	4
Percentage	62.5%	22.8%	13.2%	1.5%

2.2 Satisfaction

When investigating the stability of online teaching platform, only 11.4% of students think it is very good while 44.7% of students think it's good. However, 41.7% of students think the platform stability is not enough and 2.2% of students think the platform stability is poor. Especially after 6 p.m. when the demand is high, the internet speed can't meet the student demands. The stability of online teaching platform is very poor overall. When investigating the operation of online teaching platform, more than half of the students think that it is not convenient for use. Many of the students think that their learning enthusiasm is affected by the poor performance of the platform that they deal with while studying online. All contents

for the course are fully rendered face-to-face by the instructors once and the online content is an opportunity to review the same material. However, the nature of the content is such it does not help them study step by step and distinguish the difficult concepts from the easy ones. This dissatisfaction is reflected in nearly 41% of the students being dissatisfied with the online teaching platform. If the function of online teaching platform cannot be improved, then half the students will not choose online teaching platform to augment their study. Almost all the students believe that the quality of online platform directly affects their learning enthusiasm. Over 87% of the students think that the imperfections of online teaching platform contribute to their poor perception of online teaching. Therefore, the function of online teaching platform needs to be improved constantly. First step in this regard is to make the platform more stable. We summarize these results in Table 2 below.

Table 2. Student perception of online teaching platform

Stability of teaching platform	Very good	Good	Not too good	Poor
# of respondents	30	118	110	6
Percentage	11.4%	44.7%	41.7%	2.2%

3. IMPORTANCE OF ONLINE COURSES IN CHINA

3.1 Current state of online education opportunities

The primary reason for designing an online platform is to give the students an extra resource to augment their learning outside of the classroom. According to the survey, students feel that the number of online courses available in colleges and universities in China is not enough. Of the students who responded to the survey, majority of them take five or more courses each semester. These students feel that the online resources that they want are not available. Where there is the online content, 33.5% of students state that it is available for only one course. Researching this further, we noted that 25% of students express that the online content is available for two or more courses. The survey also indicates that more than 60% of online content was added in recent years. From the instructor perspective, the reason for not posting an online content is due to lack of institutional support to create such material and lack of time due to the heavy teaching load. Unlike in US, tenured instructors at Chinese universities are free to teach in multiple institutions and as such many of the instructors do just that in multiple institutions. Typically, instructors teach at one institution on Mondays, Wednesdays and Fridays and at another institution on Tuesdays and Thursdays. The incentive system available to instructors for creating online content is not attractive. Moreover, the instructors are not provided any training in creating online course content. We summarize these results in Table 3 and Table 4 below.

Table 3. Number of online courses per semester

# of online courses per semester	none	1	2	3 or more
# of student respondents	115	89	42	18
Percentage	43.5%	33.7%	16%	6.8%

Table 4. How instructors gain knowledge for creating online content

How instructors learn techniques	Self-study	Training	Collaborative-study	Other
Percentage	60%	22%	11%	7%

3.2 Uses of online content

The ultimate goal of developing an online course content is to introduce that in their teaching. The purpose of developing the online curriculum from the perspective of Chinese colleges and universities is to complete the task of teaching reform project or participate in the creation of such content ahead of others. In recent years, the online curriculum is truly serving both teachers and students. The survey shows that 53% of the online courses are for providing another avenue to supplement classroom teaching while 37% are for students to use as self-study reference. Nearly 90% of the online course content is used exclusively by students while 10% of the content is shared with others. The online content is open to all majors and in all universities. Online course content is widely used by instructors. When an instructor arranges a study assignment through the online course content only 21% of the students are able to complete the task very well whereas nearly half the students could only complete the task. When the instructor designs a discussion activity online, nearly three quarters of the students actively participate in the activity. This is a positive aspect of making the content online. Once again, when the student comes across a concept that is not clear to them then almost all the students are willing to ask the instructors or their classmates online for help. Likewise, when a student encounters a difficult concept in the classroom then they are willing to use the internet teaching platform to supplement the study in their spare time. The students become more and more willing to learn or finish traditional classroom learning task in the online teaching platform.

3.3 Interaction with others online

The survey shows that only 53% of students think that an interactive design of online course content is essential. The other students do not think the interactive design is necessary. Students use the online content to augment their learning and ask the instructors questions for clarification. In such cases nearly one third of the

students feel that their instructors respond to their queries whereas 40% of the students feel that they do not get a response in a reasonable time. The rest of the students note that their instructors do not respond to their queries at all. Students feel that online discussion is essential to fully benefit from having course material online. However, the students note that only 10% of them feel that their instructors participate in such discussions while more than half of them feel that their instructors participate in such sessions only occasionally. For the remaining one third of the students the experience is that their instructors rarely participate in online discussions. It is the custom in China that the students also seldom give their opinions or offer suggestions to improve the online Bulletin Board System (BBS). The very fact that BBSs are still in use show that Chinese online education needs to improve significantly to take advantage of the many new features available due to the growth in technology. In spite of the fact that online interaction is through a BBS, nearly all the students pay more attention to them only when they have some assignment to do or when the instructors force them to go to the BBS. We also investigated the reasons for this phenomenon. According to the data, the lack of adequate interactive capability, poor design of interactive function and inadequate time to join the online course are the main causes.

3.4 Assessment of online courses

In the assessment of online courses we look at four different aspects of learning. The main questions considered are:

1. whether online curriculum resources can promote learning
2. whether online curriculum resources can supplement classroom learning
3. whether online curriculum resources can replace part of classroom teaching
4. whether online curriculum resources can improve the learning efficiency

The survey data shows that the effect of online courses do not achieve the desired goal. Only 42% of students think the online curriculum can promote learning. There are more than half of the students who feel that online courses contribute a little to their learning. However, nearly half the students think that online curriculum can supplement their classroom knowledge. At the same time more than half the students think that the online curricula have not brought their advantages into full use. On the learning efficiency perspective, only 29% of students think that online curriculum can improve it. At this time the percentage of students who get satisfaction through the online courses is low. For many students an online course is just a transition of classroom teaching into self-paced learning. For students who pay close attention in the classroom, there is no advantage in following the online content. Moreover, nearly all the students think that online curriculum resources are not updated in a timely manner. Three quarters of the students think that the media resources needed for accessing online curriculum are relatively simple. However, half of the students feel that it is not convenient to find the learning resources available online. All these results are summarized in Table 5 below.

Table 5. Assessment of online courses

Impact Effect of online courses	Yes	A little	No
Promoting study of material	42%	51%	7%
Supplementing knowledge	46%	52%	2%
Repeating classroom teaching	70%	14%	16%
Improving learning efficiency	15%	26%	59%

4. OUTLINE FOR IMPROVEMENTS

Online education in Chinese universities has developed rapidly but it has encountered several problems in the process of development. In this section we outline several suggestions for improvements based on the survey results.

4.1 Full function online teaching platform

A good interactive function of online teaching platform is the first thing needed for the success of online courses (Liang Jie, 2015). According to the survey, the online teaching platform in Chinese universities and colleges can't meet the needs of instructors and students. Based on the requirements analysis of instructors and students, it is important to fully explore the platform function, make the secondary development and expand its function. At present, there is a module that provides interaction between instructors and students in the online teaching platform. However, its poor usability and level of interaction options still influences the effect on online courses. Good interaction design should include navigation, convenience and feedback (Yang Liu-qing, 2013). Navigation design should be able to let the teachers and students upload and find all course resources on the platform without any limit. Operation design should meet the instructors' and students' usage patterns. Feedback should be designed to make the teachers and students get feedback on time and clearly. Moreover, with the wide use of mobile terminals, online teaching platform should meet the students' requirement of mobile learning. It is very important to convert the function of the platform according to the characteristics of mobile devices. If the online teaching platform can be adapted to handle mobile devices, it will greatly promote the development and application of the online course.

4.2 Instructor's role in online course development

The development of online courses is time-consuming and expensive. Universities need to give enough attention to it. In order to encourage instructors developing online course content enthusiastically, universities should give enough financial incentives to instructors to support them developing online courses. The survey results show that the theoretical knowledge and technical competence needed for online course design needs to be improved. It is essential for universities and higher educational departments to further strengthen the training of instructors' education technology and teaching software tools. A Learning Management System in use in western countries would form a good model to look at for this purpose. In order to enhance the learning and sharing of the online course materials, instructors should master the online curriculum development software. Then they can properly use the audio, video, pictures and related resources in the online curriculum content.

4.3 Availability of online course resources

According to the survey, we can see that the effect of an online course is not meeting the needs of the students. The main reason is the insufficient quality of learning resources on the online teaching platform. Learning resources on the online teaching platform should not repeat the content of traditional classroom. The instructors should not only upload the course presentations and course outline but also need to design special teaching material for online courses and provide updated learning resources online in a timely manner. The instructor should enrich the media form of learning resources by providing video content in addition to textual material. Possible techniques to consider are: animation, video, audio, and mind mapping. These techniques will enhance the learning resources and the advantages of multimedia can be fully deployed (Luo Hao, 2014). The Chinese universities are experiencing a platform resource shortage in this regard. Instructors can provide available links from sources such as the global open course list and China's Open University courses to solve this problem.

5. CONCLUSION

The analysis above shows that the online education in Chinese universities has grown rapidly. The quantity and quality of online course are increasing. But there are some disadvantages that still affect the further improvement of Chinese online education. These factors include the hardware resources, institutional policies, level of curriculum development and the students' learning habits. The development of China's online education in colleges and universities is evolving slowly. Chinese higher education departments and universities should study the experience of online education abroad and encourage instructors to put more efforts towards online course material development.

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