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Using popular culture to teach the community college business curriculum:

A comparative study

by

Thomas Passero

Submitted as partial fulfillment of the requirements for the

Doctor of Philosophy Degree in Higher Education

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An Abstract of

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This study addressed a need for comprehensive quantitative empirical studies to
determine the effectiveness of using popular culture media as a teaching technique. A
quasi-experimental design was implemented to examine whether a group of community
college students taking a first-semester introduction to business course who were exposed
to a teaching method incorporating popular culture media (Treatment Group) would have
increased levels of knowledge and stronger preferences toward this method versus a
group of students taking the same course who were not exposed to this teaching style
(Control Group). Specifically, this study examined: (1) Do differences exist relative to
student learning; (2) Do differences exist relative to perceived student comprehension;
(3) Do differences exist relative to student semester retention; (4) Do differences exist
relative to student semester attendance; (5) Do differences exist relative to student
interest in the discipline of business; (6) Do differences exist relative to student’s interest
in taking additional business courses; (7) Do differences exist relative to student
satisfaction; (8) Do differences exist relative to student satisfaction between Millennial
students and non-Millennial student. The 143 students taking part in the study comprised
six intact groups, meaning they selected the days and times of the sections available that appealed to them (non-random samples). Without the students’ knowledge, the researcher/instructor arbitrarily selected three sections as the Treatment Groups and three as the Control Groups. Throughout the semester, general business concepts from the course textbook were taught to the Treatment Group using films, television shows, comic strips, and music. The Control Group were taught the same concepts but without the use of any popular culture media. Participants completed Pre-Delivery and Post-Delivery attitudinal questionnaires and took five multiple-choice exams during term. The fit of survey and exam data were tested using the Rasch model, with further hypotheses testing accomplished with Independent $t$’s, Chi-square cross-tabulations, and dependent paired samples. The analyses showed no significance between the groups receiving different teaching methods on knowledge, retention, or attendance. However, there were statistically significant differences on perceived knowledge, interest in the business major, interest in taking additional business courses, and course satisfaction for both the Treatment Group and Control Group favoring the popular culture-enhanced methodology. Regarding generational attitudes this alternative teaching method, both the Millennial and Non-millennial sub-groups strongly favored the popular culture techniques over the traditional ones. Implications for students and instructors are discussed, along with suggestions for future research.
I dedicate this endeavor to

My late parents, Ralph and Elizabeth Passero. You left this world too early to see me achieve this goal, but your leadership and guidance as parents efforts obviously paid off.

To the new boy in the family, my younger son Alex. You helped me re-learn the art of patience, and resurrected my love of little children – at my age!

You are coming along just fine, big guy.

To my older son, Tony. Your academic achievements continue to amaze me.

I hope your life achievements will be even more impressive. Keep up the great work, and I’m sure you’ll leave bigger footprints!

Finally, to my wife, soul mate, and best friend, Reti. Simply put, you are my life.

No matter what you believe, I could not have made this happen without your support, encouragement, and love. It was a blessing for me to be able to follow your Ph.D. path. I believe my success lies in the fact that I had to step my game up in order to get even close to your excellence. I love you tanto bene.
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Chapter I: Introduction

Statement of the Problem

The numbers are astonishing! Enrollment at community colleges has skyrocketed from 2 million to 6.2 million students since 2000, four times that of public or private institutions in the same period, according to the Department of Education Statistics (Snyder, Dillow, & Hoffman, 2009). Approximately one-sixth of these students will graduate with a two-year associate degree in business, obtain credits in order to transfer to a four-year institution, or sign up for business related courses as a job requirement or simply for curiosity’s sake (Snyder, Dillow, & Hoffman, 2009). This population includes both the Millennials, coming directly from high school, and the non-Millennials, born before 1980 and attending for a myriad of reasons, not least among them retraining due to losing a job during the recent economic downturn (Fischer, 2008). These dichotomous student groups provide a challenge for community college professors to keep them engaged, retained, and successful (Hoover, 2009). This situation is exacerbated by the fact that: 1) 80% of community college faculty are part-time, a group that according to recent studies have been tied to lower student success and transfer rates to four-year institutions (Jaeger & Eagan Jr., 2009; Jaeger & Hinz, 2008; Jacoby, 2006; Umbach, 2007); 2) community colleges receive less than one-third the level of federal support per FTE student that public four-year colleges do and have correspondingly poorer outcomes (Rab, 2009); and 3) the American College Testing Group reports that only 23% of these incoming freshmen are college-ready (Gewertz, 2009). The purpose of this study is to expose students of a community college introduction to business course to instructional
methods that incorporate an alternative teaching technique using popular culture media and determine if differences exist in knowledge, attendance, retention, satisfaction, interest in taking additional business courses, and interest in remaining in or changing to business as their major program of study.

**Background**

The professors throughout the United States who accept the everyday challenge of teaching these students are employed by community colleges, a relatively young branch of higher education institution whose first entry appeared in Joliet, Illinois in 1901. Today, there are 1,045 community colleges in this country, down from the all-time high of 1,092 institutions in 1998 (Snyder, Dillow, & Hoffman, 2009). From 1974 through 2007, an additional 149 colleges were added, an increase of 17%. This pace of growth is just shy of public colleges (20%) and significantly lower than private four-year colleges and universities (49%) for the same time period (Cohen & Brawer, 2008). Despite the small increase in their physical number, enrollment in these two-year institutions has grown by 741% over the last 45 years compared with 197% at public four-year institutions and 170% at private four-year colleges (Rab, 2009). Two major reasons for this unparalleled demand are individuals who need retraining due to unemployment and recent graduates of secondary schools who can’t afford the higher tuition and fees at state and private colleges (Biemiller, 2009).

One of the many attractive features of the community college is its willingness to accept all kinds of students, especially those who are academically underprepared, economically deprived, single parents, and full-time workers (Cohen & Brawer, 2008; Jaeger & Eagan Jr., 2009; LeCroy, 1992; Salzman, 2001). Students differ by race,
ethnicity, age, skill, background, and purpose. In comparing ages and racial/ethnicity of students attending community colleges and four-year colleges and universities, Snyder, Dillow, & Hoffman (2009) provides the following data:

- 66% of students at two-year schools were 30 years old and younger.
- 38% of students were between 19 and 23 years old, versus 60% at public four-year and 55% at private not-for-profit four-year institutions.
- 34% of students were over 30 years old, versus 13% at public four-year and 21% at private not-for-profit four-year schools.
- 59% of community college students were female, versus 54% at public four-year and 56% at private not-for-profit four-year schools.
- 15% of community college student make-up was Black and 14% were Hispanic, versus 10% Black and 9% Hispanic at private not-for-profit four-year schools.

In addition, some students wish to take their first two years of a bachelor’s degree requirement at the community college and then transfer to a four-year school. Others enroll in two-year colleges after attending a semester or two at four-year facilities (i.e., reverse transfer) in order to increase their grade-point average (GPA). While still others, citing availability and cost issues, enroll concurrently at four-year and two-year institutions to maximize dollars and time (LeCroy, 1992; Salzman, 2001).

Such student diversity, of course, is not without its share of shortcomings. Community college transfer students fail at a higher rate while attending their destination four-year school. Salzman (2001) suggested that many community college faculty give their students gentler treatment because “these kids have been beaten up by the system all
their lives” (p.18). He also inferred that these lenient requirements may be a result of keeping adequate levels of enrollment so as not to lose subsidies from sources of revenue. Citing a recent HERI survey, Kozeracki (2002) reported only 20% of community college instructors believe their students are well prepared academically and 32% of these teachers are satisfied or very satisfied with the quality of the students. Complicating the institution’s student make-up even further is their generational differences. Millennials and non-Millennials each bring to the classroom their unique styles of learning, non-academic responsibilities, and stereotypes. The latter group has been labeled by Howe as “the next great generation”, by Twenge as “narcissists”, and by Bauerlein as “the dumbest generation” (Hoover, 2009, p. 3). As for the professors who instruct these students, many of them have discovered what may work for “residential, full-time, young, well-prepared liberal art students will not work the same way for adult, commuting, part-time, employed community college students with family responsibilities” (LeCroy, 1992, p. 41).

While there are many key players integral to the success of the community college mission, it is somewhat ironic that these institutions rely so heavily on a group of employees that are: 1) assigned less-than-full-time teaching loads; 2) compensated at 50-60% of the rate of a full-time instructor; 3) granted few if any fringe benefits; 4) denied tenure-track positions; 5) notified about teaching assignments less than a week before classes begin; and 6) employed primarily because they are cheaper to hire and offer greater flexibility than their full-time teaching counterparts (Buck, 2001; Gappa, 1984, 2008; Gappa, Austin, & Trice, 2005; Green, 2007; Schmidt, 2008; Schuster, 2007; Thompson, 2003; Townsend, 2003). These employees, of course, are known as part-time,
contingent, or, for the purpose of this study, adjunct instructors. In the United States, almost 70% of community college faculty appointments were adjuncts, up from 52% in 1987 and just 27% in 1969 (Jaeger & Eagan Jr., 2009). In order to survive financially, many of these instructors will teach upwards of six to seven courses a semester at more than one institution. More than likely they are not given office space, administrative or academic support, or allowed to serve on committees. Because of their sheer numbers, their evaluation is done solely by students instead of peers and chairs (Buck, 2001).

Besides the obvious economic and logistical advantages of hiring adjunct faculty, colleges and universities also see value in having, as Green (2007) puts it “practitioners who pepper their classroom lectures with real-world experience” (p. 30). Also, they bring with them connections to the external business network, and can provide avenues to students regarding internships and employment. Many adjuncts themselves, despite the aforementioned inadequacies of compensation and support, have an internal desire to share with and give back to students their life’s experiences in the hope of improving the future. Says one adjunct instructor who spent 30 years as a CEO: “The rewards from teaching are fully as exhilarating as managing an innovation that yields profits far above projections” (Lyons, 2004, p. 14).

Recognizing the trend of institutions putting more faith in and responsibility on adjunct faculty, higher education professionals began questioning the quality of these part-time instructors in comparison to the traditional, tenure-track, full-time professors. Beginning in 1979 through the mid-eighties, several studies have attempted to measure everything from the use of media and grading practices to course retention rates and student achievement in advanced courses. Conclusions about teaching effectiveness of
full-time vs. adjunct faculty were discovered to be inclusive and minimal (Gappa, 1984). In more recent studies, however, negative relationships have been found between student exposure to adjunct instructors and student retention, college transfer, minimal use of active teaching techniques, and less time spent preparing for class (Jaeger & Eagan Jr., 2009; Jaeger & Hinz, 2008; Jacoby, 2006; Umbach, 2007). Nevertheless, almost every researcher of adjunct faculty admitted that they are doing the best job possible, given the conditions.

Given these challenges, community college business faculty need to offer classroom instruction that not only facilitates student learning outcomes, but also provides an active and participative learning environment that keeps both traditional and non-traditional student populations coming back (Umbach & Wawrzynski, 2005). Among their seven principles for effective undergraduate education, Chickering and Gamson (1987) underscore one as the need for instructors to use active learning techniques, emphasizing that “learning is not a spectator sport” (p. 4). In his seminal publication, Scholarship Reconsidered: Priorities of the Professoriate, Boyer (1990) suggested “to keep the scholarship (of teaching) alive, we need active, not passive, learning” (p. 90). Also, research has shown that where faculty employ active learning methods, students reported gains in personal social development, general education acumen, and practical skills (Umbach & Wawrzynski, 2005).

Active learning (Bonwell & Eison, 1991) can include structured exercises, directed discussions, group assignments, service learning, internships, and others. Many of these techniques fall under the umbrella of experiential learning (e.g., Baker, Jensen, & Kolb, 2005; Crittenden, 2005; Kolb, 1984, 2005; Li, Greenberg, & Nicholls, 2007). Kolb
(1984) defines experiential learning as “the process whereby knowledge is created through the transformation of experience…knowledge results from the combination of grasping and transforming experience” (p. 41). It implies that students will learn by doing. Experiential learning is supported by several theories of learning, including pragmatism, social, psychological, and cognitive development, and draws on the work of Kurt Lewin, Jean Piaget, Paulo Freire, and Carl Rogers (Kolb, 1984). The term itself is often used to separate some of its emerging theories (i.e. Kolb’s Experiential Learning Theory, or ELT) and random informal life experiences from formal education. Well over 3,000 studies and articles about ELT and experiential learning in general have been authored over the last 40 years, making it one of the most significant areas for research and practice in adult education (Fenwick, 2000; Kayes, 2002).

One common application of experiential instruction is to incorporate popular culture media in the instructor’s lesson plan. Guy (2007) stated “that classroom energy levels rise substantially as students engage with the examples and discuss various perspectives regarding popular culture and its implications” (p.19). Using popular culture media in the classroom facilitates discussion, increase participation, encourages critical thinking, supports multiple interpretations, provides student satisfaction, and brings their world of entertainment into a framework for education (e.g., Champoux, 2001, 2004a; Giroux, 1994; Proctor & Adler, 1991). Popular culture as a field of study blossomed in the 1960’s (e.g., Browne, 1989, 1996, 2002, 2005; Browne & Ambrosetti, 1972; Daspit, 1999; Giroux, 1994). One of the pioneers of the movement to make popular culture a serious field of study and scholarship was Ray Browne (2005) who defined his discipline this way: “Most important, the popular culture of a country is the voice of the people –
for better or worse, their likes and dislikes, the lifeblood of their daily existence, their
individual and national way of life” (p. 11). Dolby (2003) scripted popular culture as “a
complex interplay of cultural products (e.g. film, television, literature, etc.) and meanings
placed in circulation…that are received and acted upon” (p. 260).

This study will focus on the use of popular culture not as subject matter, but rather
as an alternative scheme from traditional lecture-based instruction for teaching core
business concepts as globalization, economics, ethics, management, business ownership,
entrepreneurship, human resources, marketing, accounting, and finance. A preliminary
investigation into the use of media and popular culture as a pedagogical tool generated
well over a thousand results. The first group of these contributions provided anecdotal
evidence or theoretical opinions suggesting that using popular culture as a teaching
method was preferred by students over didactic systems (e.g., Boyatzis, 1994;
consisted of empirical studies that attempted to measure student attitudinal and
preferential feelings about the use of popular culture media as part of the instruction, in
addition to ascertaining the students’ perceived understanding of course concepts (e.g.,
Burton, 2008; Cullen, 2005; Guy, 2007; Sarason, 2004; Sprau, 2001). Again, students
overwhelmingly favored seeing this media as part of their class lecture. In addition, most
of these studies also cited a positive difference in the quality of the student work (i.e.,
essays were more creative and richer, etc.). Specifically addressing the community
college audience, these students “have very little in common except their immersion in
popular culture” (Bartholome, 2006, p. 9).
The third category, however, yielded only a handful of contributions to the literature. In addition to measuring attitude and preference of teaching methods, these compilations were comparative studies that also attempted to link the use of popular culture media assignments to actual improvement in student exam scores related to the course content (Baker & Lawrence, 1994; Imig, 1981; Smith, 1973). Although these studies were quantitative in nature, they used mostly descriptive statistics to evaluate differences in performance, and did not apply analytical rigor to test their hypotheses. Furthermore, they made broad assumptions about the student class composition and sample equivalency, and did not explicitly apply thoroughness in measuring validity or reliability. As a final confirmation of the lack of quantitative, robust empirical work in this area, neither study incorporated multiple forms of popular culture in the business curriculum, nor measured differences in the effect that popular culture techniques had on millennial versus non-millennial students.

Purpose of Study

The purpose of this study is to determine if differences exist in community college student knowledge, attendance, retention, satisfaction, interest in taking additional business courses, and interest in remaining in or changing to business as their major program of study when these students are exposed to instructional methods that incorporate popular culture media into a semester-long introductory business course. The study will also examine preferred teaching methods for two dichotomous student populations: Millennials and non-Millennials. Six sections of the BUS 101 Intro to Business course will be divided equally into Treatment and non-Treatment, or Control Groups. The Treatment Group will receive the popular culture-infused instruction while
the Control Group will receive identical course content but without popular culture-based exercises or examples. Random assignment of the population will be impossible since the students cannot be assigned to a group, but rather will already be in a course section of their choosing (i.e., intact groups). Therefore, a quasi-experimental research design will be exercised (Fraenkel, 2000). Data collected will include pre and post-semester attitudinal Likert-type questionnaires, and results from five multiple-choice exams covering different sections of the course textbook and lecture. Statistical methods and models including independent samples t-tests, chi-square cross tabulations, and dependent paired samples t-tests will be used for hypotheses testing and for determining whether the instruments employed are reliable and valid. The experiential learning cycle (Kolb, 1984) will provide the theoretical framework for this study.

Significance of Study

Despite the abundance of articles and studies of popular culture usage in the classroom, very few dealt with comparative studies intending to measure differences in student performance given their exposure to various popular culture media. Moreover, few studies in the broader area of active learning focus on performance and outcomes and instead address more emotional reactions like satisfaction (Michel, Carter, & Varela, 2009). From the handful of references that did produce an empirical quantitative work, neither employed rigorous statistical methods and analyses such as Rasch, nor did they focus on the community college business student population. In the most closely pertinent study, Baker and Lawrence (1994) readily admitted that their project lacked a strong statistical foundation, and recommended that future research incorporate these measures, as well as perform comparative studies of Treatment and non-Treatment
Groups. This study will satisfy both of those recommendations in addition to being the only study to date that will apply the Rasch model to this type of research. This study will also contribute to the obviously under-populated gap in the literature, but differ from the profusion of writings about behavioral preferences of Millennial college students by using empirical, fact-based evidence versus anecdotal opinion.

Apart from contributing to the collection of experiential instruction literature, implications for higher education policy may also include closer examination of the relationship between community college business student learning preferences and student performance. Research has shown that adjuncts use significantly less time preparing for class than their permanent, full-time colleagues (Umbach, 2007). Therefore, the findings of this study could also be used to provide contingent faculty with ready-to-go, empirically-tested “modules” of instruction as an alternative to lecture, as well as to recommend modifications to existing adjunct instructor professional development.

Delimitations and Limitations

This study will explore the use of popular culture as an instructional tool when teaching business classes in a face-to-face (F2F) classroom environment at the main campus of Owens Community College for one semester. It will not focus on popular culture as its own course of study, nor will it attempt to measure the effectiveness of using popular culture-infused instruction in a web or distance class setting. Therefore, findings should not be applied to situations outside the scope of this study, although future research regarding distance courses and the use of this technique should be encouraged.
There are several limitations to this study. As previously mentioned, the intact groups formed by students signing up for various class times make it impossible to apply pure experimental data analysis. Subsequently, the ability to make inferences to the general population associated with this research is constrained. Related to the self-selection of course days and times, it is also impossible to assume perfectly balanced class compositions. This includes the number of students, their age, and their knowledge. Regarding the survey instrument, it is assumed that the students will answer the questionnaire truthfully, but there is now way to guarantee that happening. In addition, the same instructor (and this study’s researcher) will teach all six class sections which could lead some to cry bias in the proposed hypotheses. Each of the above risks and others not mentioned here, as well as risk mitigation strategies will be addressed in much greater detail under the Threats to Reliability and Validity section in the Methodology chapter.

*Definitions*

**Attendance** – For the purposes of this study, attendance is a student that was present for a scheduled class.

**BANNER** – An information management system used by institutions of higher education.

**Classical Test Theory** – A true score theory “classical in the sense that it is traditional” (i.e., the use of statistical tests to determine significance) (Bond, 2001, p. 229).
Fit - Statistic provided by Rasch analysis regarding the degree of match between the pattern of observed responses and the modeled expectations. This is provided for both persons and items (Bond, 2001).

Intact Groups – a group that is inherently self-selected (i.e. college course) versus randomly assigned by a researcher.

Item Endorsability - The percentage of “agree” responses to an item for a given sample.

Millennial Student – Students who were born 1980 and after (Tulgan, 2000).

Multiple Choice (dichotomous) Test – an objective test where the test taker selects the best answer to a question or statement from a list of alternative responses.


Person Agreeability - The percentage of items with which the person agreed

Pre-Delivery and Post-Delivery Surveys – Surveys conducted in the beginning of the semester before course content is delivered and at the end of the semester after course content is delivered, respectively.

Quasi-experimental Research – Research involving an experimental variable with groups that have not been formed through random assignment (Wiersma, 2005).

Rasch Item Difficulty – the result of transforming the proportion of persons in a specified sample who answer a multiple-choice question correctly, or highly endorse a survey item (Wright & Stone, 1979).

Rasch Model – An item response theory model that is based on the assumption that an examinee’s response to an item is a function of the examinee’s trait level and the characteristics of the item (Linacre, 1996).
Rasch Person Ability – the result of transforming the proportion of correct answers a person obtains on a MCT correctly or highly agrees about on a survey item (Wright & Stone, 1979).

Rating Scale Analysis - A version of the Rasch model used for polytomous data generated by Likert scales (Bond, 2001).

Retention – For the purposes of this study, retention will be defined as a student who has completed a course with a grade of “D” or better (or completing the course with a grade of “F”).

Specific Objectivity - The measurement of a person’s trait is independent of the dispersion of the set of items used to measure that trait and item calibration is independent of the distribution of the ability in the sample of persons who take the test (Bond, 2001).

Success Rate – The percentage of students in a given course who obtain a passing grade of C or better.

Unidimensionality – “The focus on one attribute or dimension at a time” (Bond, 2001).

WINSTEPS – a Rasch model software program used to run data and produce statistical output.
Research Questions

The primary research question for this study was: (1) Do differences exist relative to student learning when a business course is taught incorporating popular culture versus one taught without incorporating popular culture? Secondary research questions include: (2) Do differences exist relative to perceived student comprehension when a business course is taught incorporating popular culture versus one taught without incorporating popular culture? (3) Do differences exist relative to student semester retention when a business course is taught incorporating popular culture versus one taught without incorporating popular culture? (4) Do differences exist relative to student semester attendance when a business course is taught incorporating popular culture versus one taught without incorporating popular culture? (5) Do differences exist relative to student interest in the discipline of business when a business course is taught incorporating popular culture versus one taught without incorporating popular culture? (6) Do differences exist relative to student’s interest in taking additional business courses when a business course is taught incorporating popular culture versus one taught without incorporating popular culture? (7) Do differences exist relative to student satisfaction when a business course is taught incorporating popular culture versus one taught without incorporating popular culture? (8) Do differences exist relative to student satisfaction between Millennial students and non-Millennial students when both are exposed to a business course taught incorporating popular culture?
Hypotheses

The following are the hypotheses that correspond to the above primary research question and secondary questions:

- **Hypothesis 1**: Students exposed to a business course taught incorporating popular culture will **score higher on multiple-choice tests** than those exposed to one taught without incorporating popular culture.

- **Hypothesis 2**: Students exposed to a business course taught incorporating popular culture will **have higher levels of perceived comprehension of course topics** than those exposed to one taught without incorporating popular culture.

- **Hypothesis 3**: Students exposed to a business course taught incorporating popular culture will **complete the course with a “D” or better in greater numbers during the semester** than those taking one taught without incorporating popular culture.

- **Hypothesis 4**: Students exposed to a business course taught incorporating popular culture will **attend more class sessions during the semester** than those exposed to one taught without incorporating popular culture.

- **Hypothesis 5**: Students exposed to a business course taught incorporating popular culture will **have higher levels of interest in the business discipline** than those exposed to one taught without incorporating popular culture.

- **Hypothesis 6**: Students exposed to a business course taught incorporating popular culture will **have higher levels of interest in taking additional**
**Business courses** than those exposed to one taught without incorporating popular culture.

- **Hypothesis 7:** Students exposed to a business course taught incorporating popular culture will have higher levels of course satisfaction than those exposed to one taught without incorporating popular culture.

- **Hypothesis 8:** There is no difference in course satisfaction between **Millennial students and non-Millennial students** when both are exposed to a business course taught incorporating popular culture.

**Summary**

This chapter introduced the study’s research problem, background, significance, limitations and delimitations, definitions, and research questions and hypotheses. The next chapter will explore the literature germane to this study, including community colleges and their mission, faculty and students, active learning teaching techniques, experiential learning theory, and popular culture. The third chapter will describe the methods used in this study, including the quasi-experimental research design, participants and instruments, data gathering and analyses, validity and reliability threats and mitigation strategies, and an overview of the Rasch model. The fourth chapter will present the research data analyses that support or refute the hypotheses, and the fifth chapter will provide a discussion of the findings that will include conclusions from the data analyses, limitations of the study, and implications and recommendations for instructors and students.
Chapter 2: Review of the Literature

The previous chapter discussed the reasons for conducting this comparative instructional method quasi-experiment at a community college. In this chapter, the principle components involved in the study are introduced: (1) community colleges; (2) students; (3) faculty; (4) pedagogical techniques; and (5) popular culture. The literature review represents a purposeful and broad sampling of authors whose contribution reflects the specific mechanisms involved in this study and general interests of this investigation.

The topic of community college comprises the categories of history and mission. Students include characteristics, performance, and generational differences. Faculty is divided into full and part-time instructors. Pedagogical techniques contain active learning, definition, and applications of the associated experiential learning theory, and anecdotal and empirical examples of pedagogy using popular culture media. This segment also contains the theoretical foundation upon which the study is framed. The last section continues with the popular culture theme, but focuses more heavily on its quest for respect in academe.

*The Community College*

In order to fully understand why this institution is making such a profound impact in this country’s higher educational hierarchy, it is necessary to review the content and context from which it originated. Equally important to examine are the many-faceted and much debated missions the community college attempts to fulfill. The roles of two primary stakeholders, faculty and students, are also investigated separately, with special emphasis
placed on adjunct instructors and Millennial and Non-millennial students. The review of
the literature for all of these components is examined in context to the specific nature of
this study.

History and Growth of the Community College

Since its inception over 100 years ago, this uniquely American institution of
higher learning has been defined and redefined many times. It has been called “junior
college,” “public junior college,” “private junior college,” “two-year college,” “technical
school,” technical institute,” “occupational school,” “vocational school,” “city college,”
“county college,” “branch campuses,” “people’s college,” and eventually, its current title,
“community college” (Gappa, Austin, & Trice, 2005). From the onset of this type of
school, however, only two generic names have risen to the top of the lexicon: junior
college and community college. The titles given to these schools appeared to have
reflected the need for such institutions, as well as the type of student the founders were
anticipating. The term “junior college” was first used by President William Rainey
Harper at the University of Chicago in 1896, when he referred to the moniker “for the
lack of a better term, to cover the work of the freshman and sophomore years” (Eells,
1941, p. 2). In 1922, at the second annual meeting of the American Association of Junior
Colleges, a more formal definition was offered: “an institution offering two years of
instruction of strictly collegiate grade” (Bogue, 1950, p. xvii) and modified three years
later to address the “ever-changing service, social, religious, and vocation needs of the
entire community in which the college is located. It is understood that in this case, also,
that work offered shall be on a level appropriate for high-school graduates” (p. xvii).
One of the first references to a community college organization is highlighted in a piece written by president of a junior college in Pennsylvania. In his article, the president wrote of an institution that provided educational, recreational, and vocational opportunities for young people, and that the work of the community college should be in conjunction with high schools and other community institutions (Gleazer, cited in Baker, 1994). Separation began to take place in 1947 with then President Truman’s Commission on Higher Education that sought to provide direction and emphasis to a school that adapted its programs to the needs of, among other things, the community, adults, and transfer students. Over a decade later, the American Association of Collegiate Registrars and Admissions Officers (AACRAO) offered its definition of this embryonic educational enterprise:

A two-year institution of higher education, generally public, offering instruction adapted in content, level, and schedule to the needs of the community in which it is located. Offerings usually include a transfer curriculum, occupational curriculums, general education, and adult education. (Baker III, 1994, p. 20)

Both the suggestions of the Commission and the guidance of the AACRAOA helped provide clearer designations for the junior versus community college labels. The former would be applied to denominationally supported two-year colleges as well as branch campuses of private schools, while the latter would be used to describe the comprehensive, publicly supported institutions (Cohen & Brawer, 2008). After 1970, community college came to be the universal term, with what Cohen and Brawer (2008) defined as “any institution regionally accredited to award the associate in arts of the associate in science as its highest degree” (p. 5).
Scholarship associated with the origins of the community colleges tends to be in general agreement about why they were developed in the first place (e.g., Cohen & Brawer, 2008; Baker III, 1994; Koos, 1970; Ratliff, as cited in Baker III, 1994). In the nineteenth and early twentieth century, many important educators and administrators desired to bring greater organization and consistency to their universities. They wanted to distinguish between the mission of collegiate work, which is to provide an overview of education and hone the student’s abilities to study and question, and the mission of university work, which is to advance knowledge and develop theory and understanding. At that time, many leading school presidents suggested that the burden of teaching the first two years of college should be relegated to high schools or two-year “junior” colleges. This line of thinking was borrowed from the university and secondary school systems in Europe. Some of the individuals proposing the secession, or at least separation, of their freshman and sophomore classes were Henry Tappan, president of the University of Michigan, William Mitchell, a University of Georgia trustee, William Folwell, president of the University of Minnesota, Alexis Lange, president of the University of California, Edmund James, president of the University of Illinois, David Starr Jordan, president of Stanford University, and Harper of University of Chicago (Cohen & Brawer, 2008; Ratliff, as cited in Baker III, 1994). The majority of these individuals considered this an appropriate method that would allow their institutions to set research as their primary purpose.

While scholars do not deny the role prominent university leaders played in nurturing the two-year college movement, there is conflicting research as to what other parties advocated the creation of this type of institution. During the late 1800s in southern
states such as Texas and Louisiana, there was a strong desire to create state or
denominationally supported community institutions (Cohen & Brawer, 2008). However,
many of these aspiring colleges had neither sound financial backing nor defined sources
of students. Therefore, many of them struggled or failed in times of economic downturns.
In the midst of one such downturn in 1894, Reverend J. M. Carroll, then president of
Baylor University, suggested that the smaller four-year Baptist colleges reduce their
curriculum to the first two years of study, and then permit the students that have
completed this coursework to enroll at Baylor for years three and four of the
baccalaureate degree. After learning about this proposal from some local Baptist college
leaders, Rainey Harper of the University of Chicago struck a deal with several
denominational institutions in the area and offered a similar transfer program (Cohen &
Brawer, 2008).

An alternative explanation of the origin of community colleges comes from
Dougherty (1994), who framed his arguments from three sociological theorists’ points of
view: the pluralist functionalists, the Marxist instrumentalists, and the institutionalists.
The pluralists were known as the community college’s defenders, while the
instrumentalists and institutionalists were pegged as the critics of the community college.
Similar to the pronouncements of Cohen and Brawer (2008), Eells (1941), and Ratliff (as
cited in Baker III, 1994), the functionalist advocates concur with the original university
leaders’ desire to create a schism between the early and later undergraduate years for the
purpose of teaching the former group’s students how to study and think, and reserving the
latter group’s work in research, theory, and scholarship. The main difference between
these philosophies is that the functionalists didn’t consider the subtle intent of the
universities to avoid dealing with the thousands of students that didn’t measure up to their higher educational standards. The instrumentalist’s perspective subscribed not only to increased higher educational opportunity but also university selectivity. In their reasoning, however, businesses were the major players in establishing and nurturing community colleges because they would be the beneficiary of subsidized employee training and simultaneously maintain educational class differences (Dougherty, 1994). Lastly, the institutionalists subscribed to a Darwinian nature of higher education where the four-year institutions are on top and the two-year institutions are on the bottom. This group focused on how federal, state, and local legislatures and school administrators were instrumental in establishing the community colleges as beacons for underprivileged students pursuing a better standard of living. Furthermore, they believed that the self-interest of these same officials were paramount in their decisions, since by keeping the four-year schools’ prestige and selective, they themselves would be privy to professional accolades and jobs in higher education jobs (Dougherty, 1994). The academic and administrative make-up of the initial institutions and those that came afterwards was influenced by these perspectives. These will be discussed in the next section.

The first institution that is now known as a community college emerged in Joliet, Illinois in 1901, and the second in Fresno, California in 1910 (Dougherty, 1994). In these two instances and others that followed, the goal of establishing these community colleges was to split the post-secondary baccalaureate into two time periods: the freshman and sophomore years for refining study habits and acquiring knowledge, and the junior and senior years for obtaining additional knowledge and conducting research. However, several two-year schools that were primarily technical institutes appeared even before the
ones in Joliet and Fresno: the Lewis Institute in Chicago in 1896 and the Bradley Polytechnic Institute in Peoria, IL in 1897. Many of these technical colleges later added general education for both degree and transfer students (Ratliff, as cited in Baker III, 1994). The general guidelines for any of these institutions were to provide two years of collegiate grade instruction, and offer courses that were similar in scope and rigor of corresponding four year colleges and universities. During the first community college growth period of the 1920s and 1930s, the number of institutions, both private and public, approached 600 in number. At that time, governing boards such as the American Association of Junior Colleges suggested that junior colleges could offer subjects and programs of study that would meet the various social, vocational, and religious needs of the community (Bogue, 1950; Gleazer, as cited in Baker III, 1994). The other key period of community college growth occurred in the 1960s through the mid-1970s when the number of schools nearly doubled, from 652 to 1233. The latest figures from NCES (Snyder, Dillow, & Hoffman, 2009) indicated that there are 1,045 community colleges in the United States.

The expansion of community colleges over the last 110 years can be attributed to many factors besides open access admission and lower cost than a four-year institution. In the United States, there were an increasing number of demands layered on all levels of academic institutions. For example, the percentage of those graduating from secondary school grew from 30% in 1924 to 75% in 1960. If there was a social or personal problem, the government allowed the schools to take care of it (Cohen & Brawer, 2008). Early on, the two-year colleges grew directly as a result of the increased number of secondary school graduates. The situation exasperated itself during the Great Depression,
as it was much easier for a person to continue on to the 13\textsuperscript{th} and 14\textsuperscript{th} grades than to find employment. It was also at this time that the vocational element of a community college took hold, as this major economic downturn created a need for a program to keep laid-off employees’ skills fresh and train individuals for jobs that would be available post-depression. Employers, from then until now, wanted to take advantage of publicly-funded training programs for their workers (Ratliff, as cited in Baker III, 1994). Other reasons for growth included the number of people that wanted education for education’s sake, access to the community colleges from interstate highways and outer belts, closer proximity to campus (10 mi), university campuses creating feeder branch campuses, and the addition of developmental students to the educational mix (Cohen & Brawer, 2008). Government also played a large role, as local municipalities established colleges, state boards permitted school openings, and national acts of congress enabled federal aid. For example, California by far was the leader in promoting the concept, opening two new schools a year from 1910-1960. Specific federal policy that influenced the number of colleges and enrollment were the Higher Education Facilities Act of 1963, the Vocational Education Act of 1963, the Higher Education Act of 1965, and the Higher Education Amendments of 1972 (Cohen & Brawer, 2008; Dougherty, 1994).

\textit{Missions of the Community College}

There has been no shortage of opinion about what the purpose, or mission of a community college should be, nor has there been a scarcity of ways to categorize its missions. Bogart (as cited in Baker III, 1994) succinctly described attempts to categorize community college missions as the “difficulty and frustration” and “with considerable overlap and confusion along the way” (p. 63). Nevertheless, he clearly articulated its
significance by saying “the mission of the American college community is the most important element of its being” (p.62).

The term mission, according to the Merriam-Webster’s collegiate dictionary (2003), means a specific task with which a person or a group is charged; or, in the context of a community college, what it claims to do. From a pragmatic perspective, the definitions mentioned in the previous section would help drive the more encompassing mission philosophies described in this section. On the other hand, Bogart (1994) claimed that the driving force behind the essence of a community college can be found in the report from President Truman’s Commission on Higher Education in 1947:

The time has come to make education through the fourteenth grade available in the same way that high school education is now available…To achieve this, it will be necessary to develop more extensively than at present such opportunities as are now provided in local communities by the 2-year junior college, community institute, community college, or institute of arts and sciences. The name does not matter, though community college seems to describe these schools best; the important thing is that the services they perform be recognized and vastly extended. (The President’s Commission Higher Education for Democracy, 1947, Toward Equalizing Opportunity section, ¶3)

Although this statement appeared almost 50 years after the first junior/community two-year institution was established, it was a bellwether for the further development and transformation of the community college into today’s distinctive higher education organization (Bogart, 1994). What follows is a comparison of the different categories of community college missions and arguments for and against the collegiate function.
The two categorizations of missions, or functions of community colleges discussed in this section are Cohen and Brawer’s comprehensive curricular functions from their book The American Community College (2008), and an adaption of Cross’ (1985) thematic organizations of missions (Bailey & Morest, 2004). The most recent structure of missions from Cohen and Brawer consists of the following areas: academic transfer preparation, vocational-technical education, continuing education, developmental education, and community service. Academic transfer preparation pertains to colleges offering courses that are taken for the primary purposes of: 1) direct transfer into a four-year college or university’s baccalaureate program; 2) attaining a two-year associate’s degree and transfer into a four-year college or university as a junior; and 3) attaining a certificate in an academic area, such as business or language. According to Cohen and Brawer (2008), this function served a popularizing role indicating the benefits of enrolling in a community college course. It also served a selectivity role for the four-year institutions whereby they could discriminate in choosing freshman and sophomores for direct admission into their schools, knowing that the community colleges would provide education for the lesser qualified students. Even as early as 1930, almost 70% of semester hours comprised these types of courses (Eells, 1941). Vocational-Technical, also known as terminal or career education was geared toward those students who would not go on to further studies. It differentiated itself from the high school vocations by offering a wider variety of and more complexity in trades (Eells, 1941). According to Cohen & Brawer, (2008), the academic transfer to vocational enrollment ratio was 4:1. By 1970, it had reached parity with the academic offerings, and as late as 2005, over 51% of community college degrees were in occupation programs.
The next mission outlined was continuing education, or life-long learning programs. The spirit of offering extended education other than for degree and terminal purposes was confirmed by a Texas college’s slogan “We will teach anyone, anywhere, anything, at any time whenever there are enough people interested in the program to justify its offering” (Bogue, 1950, p. 215). Continuing education was the antithesis of those programs defined by rigid patterns of degree or graded education. This category also included custom contract education for businesses and non-profit organizations, offered by well over 75% of all community colleges (Bailey & Averianova, 1998).

Developmental or remedial education was a relatively recent addition, added primarily due to the poor secondary school education beginning in the mid-1960s and overall increase in college-bound students. According to NCES (Snyder, Dillow, & Hoffman, 2009), nearly 30% of all community college students, as compared with only 19% in public four-year institutions, took some type of remedial coursework in their freshman year. Mathematics, English, and reading constituted nearly 50% of all developmental coursework. The fifth function of community colleges was community service. This included an expansive range of cultural and recreational events, from senior, adult, and children’s non-credit workshops to entertainment and sporting events open to the public.

In some rural and suburban locales, the community college served as their cultural center as well as a foundation for education (Cohen & Brawer, 2008).

Although this typology is recognized by several scholars (e.g., Lorenzo & Bogart, as cited in Baker III, 1994; Dougherty, 2006), it has also been decried by others as too simplistic. For example, community colleges that offer marketing courses for transfer to four-year school business baccalaureate degree programs also list similar if not identical
courses in their technical programs for sales training. In the same vein, technical education could fall under the umbrella of continuing education, depending on credit/non-credit status and student enrollment objectives (Bailey & Morest, 2004). Even Cohen and Brawer (2008), the authors of this literature admitted that, by its very nature, education is not discrete and therefore there will be the inevitable overlap of functions. Some courses could fall under the science heading for an associate’s degree or transfer course, but could also be included in an occupational education curriculum or taken as a subject of interest by a non-degree, non-certification individual. Despite the cross-over, collegiate funding agents and accreditation associations mandate that these chimney-like categories exist.

Taken from Cross’ (1985) typology of community college missions (e.g., comprehensive, vertical, horizontal, remedial, and integrated foci), Bailey and Morest (2004) attempted to make order of these categorizations. In a study of the organizational efficiency of community college multiple missions, they have modified this scheme to three primary headings: core, vertical, and horizontal. The core is similar to Cohen & Brawer’s (2008) academic transfer function, in that they both are comprised of degree-granting programs that offer academic certificates, degrees, and transferable courses to four-year colleges or universities. Where they differ is that core also includes occupational degrees and certificates as well as developmental education. The terms vertical and horizontal relate to theories about organization mergers, with the byproduct of such agreements being an occasional perceived ability to control their external environments (Salancik & Pfeffer, 1978). According to Bailey and Morest (2004), vertical expansion is associated with improving the stream its inputs and outputs. In this
case inputs are high school students and transfer students from other community colleges or four-year institutions, and outputs are prepared transfer students to four-year schools or workers in demand. The objective of the vertical mission is to push or pull students through the traditional system. School-to-Work, Tech-Prep, Post-Secondary Option, and other dual enrollment and credit-bearing transition programs are the tools that merge high schools, community colleges, and four-year colleges and universities. Conversely, horizontal expansion works to diversify the markets served by and sources of revenue for community colleges. Increasing and nurturing the community college stakeholder was of principal importance, since additional and supplemental earnings would be realized from contract training, continuing education, community service, non-credit courses, small business incubators, children’s camps, and others (Bailey and Morest, 2004).

Over the last nine semesters at a large northwest Ohio community college, 65 – 70% of the students who sign up for the introduction to business course in the fall, spring, or summer semesters have indicated on their enrollment application that they are taking the course for college transfer, certificate, or degree purposes, while 30 – 35% have noted personal interest, upgrade skills, or obtaining a new job as their primary motives (Personal communication, 2010). It is important to know that this institution subscribes to what is known as the comprehensive mission. A 1981 Brookings Institute study defined the three general mission strategies as: 1) the Comprehensive Mission, where the college gives equal priority to academic, vocational-technical and community service functions; 2) the Traditional College Mission, where there is a shift from the “community” to the “college” functions (i.e., academic transfer or core functions); and 3) the Community-based Mission, where the emphasis is on part-time, non-degree seeking adult learners.
(Gleazer, as cited in Baker III, 1994). Because the majority of the students involved in this study will have enrolled for academic transfer reasons, this section will focus on the comprehensive-collegiate mission.

Community colleges adopting the collegiate mission include a full contingent of liberal arts subjects (e.g., science, modern foreign languages, literary criticism, math, art, and history). Historically, universities have dominated the collegiate function by specifying what they accept for transfer credit, what they require for the baccalaureate degree. Articulation was under the direction of the most powerful four-year schools. Also, the more closely the two-year colleges mimicked the university courses, the greater chance those courses would transfer. There are geographical differences in the amount of community college courses that transfer. Some four-year institutions accept up to 80% of courses, while others recognize only 50%. This has prompted states’ boards of higher education to bargain with two-year and four-year schools. Cohen and Brawer (2008) cite the example of Florida’s Miami-Dade Community College where students are screened at entry, their progress is monitored, and the requirements for associate degrees and transfer to various programs in Florida universities are reviewed. Everyone is part of this process except degree holders coming back to school for various reasons. In other states like Ohio, there are also 2+2 and 3+1 programs, along with TAG, or transfer articulation guideline relationships with community colleges and universities. Other proponents of the collegiate function state that academic and transfer programs will get stronger due to high school diplomas being less valuable than ever before, and that the cost of a four-year school will be out of reach for most aspiring baccalaureate-seeking students. They also state that the need for developmental education for unprepared high school graduates and
displaced workers, as well as the yearning for higher level institutions to maintain admission selectivity will keep community colleges providing academic transfer curriculum (Dougherty & Townsend, 2006).

Non-collegiate, or pro vocational proponents have countered these arguments by pointing to the increase in the number of degrees of vocational/terminal granted over academic associates degrees (Cohen & Brawer, 2008). Breneman and Nelson (1981) added that “community colleges should enroll fewer full-time academic transfer students of traditional college age and retain a dominate position in these (vocational) activities that four-year institutions have not undertaken traditionally and are likely to do less well” (p.209, 211). Researchers (e.g., Clowes & Leven, 1989; Cross, 1987) make even a stronger point by advocating that the only reasonable function community colleges should offer is career education. Grubb (as cited in Bailey & Morest, 2004) also supports a non-collegiate stance by suggesting that there is only one valued postsecondary institution, and that is the research university; an institution with which a community college cannot compete primarily because they are not as selective. A final argument that not only goes against the collegiate mission but also the comprehensive strategy is that, due to limited resources, community colleges can’t be all things to all people. In trying to please everyone, the colleges end up compromising their effectiveness in core areas (Bailey and Morest, 2004).

Although this debate will probably continue as long as there are community colleges, it is a fact that community college students are statistically less likely to realize their ambitions of a baccalaureate degree than similar students who enter a four-year school at same time (Dougherty & Townsend, 2006). However, community colleges have
a contradictory impact on the educational futures of their students. According to Dougherty (1994), “baccalaureate aspirants clearly attain fewer bachelor’s degrees and years of education than if they had entered a four-year college. But counterbalancing this, student who aspires to less than a bachelor’s degree appears to receive more years of education, but perhaps fewer baccalaureate degrees” (p.86). This impact includes the occupational students mentioned earlier, who are significantly less likely to transfer to four-year schools than academic students (Dougherty & Townsend 2006). The characteristics of these same students will be examined in the next section.

Students

Community college students are the fastest expanding educational student population in the United States. At some colleges, annual increases in enrollment have been as high as 15% a year. Beginning in 1960, when the attendance for two-year colleges was just under 500,000, institutional growth quadrupled to two million in 1970 and tripled to well over six million today (Cohen & Brawer, 2008). Because the participants in this research study are community college students, it is important to examine some of their traits and behaviors. This section will explore the existing literature regarding community college student characteristics, their reasons for choosing this type of institution, student ability and performance, and generational differences.

Characteristics

In reviewing the literature on community college students, one finds a hodgepodge of demographic data and a myriad of reasons for attending this type of institution. Samples of student descriptive statistics include the following:
• The national average age was 27.7 years, the median 23.6 years, and the mode was 19 years.

• 38% of students were between 19 and 23 years old, versus 60% at public four-year and 55% at private not-for-profit four-year institutions.

• 34% of students were over 30 years old, versus 13% at public four-year and 21% at private not-for-profit four-year schools.

• 26% were 24 and older and independent from parents.

• 20% were independent and married with children.

• 15% were independent, single parents.

• 40% were dependent students (23 and under).

• 29% of dependent community college students came from families with incomes under $32,000 versus 21% enrolled in four-year institutions.

• 79% of community college students worked while enrolled, versus 70% of four-year college students.

• Of those working, 41% of community college students worked full-time versus 23% at four-year schools.

• 61% were part-time students.

• 15% of community college student make-up was Black and 14% were Hispanic, versus 10% Black and 9% Hispanic at private not-for-profit four-year schools.

• 43% of all students beginning higher education enrolled first in a community college.

• 60% of students age 30 and above who delayed their postsecondary career began at a community college.
Such increases in total numbers and diversity of students was a result of several factors: open access philosophy; willingness to perform developmental education; normal population growth; more older students; availability of financial aid; increased cost of four-year institutions; more female students; expanded classification of “students;” influx of displaced and laid-off workers due to economic conditions; post-secondary op and tech-prep programs through high school; and a general uptick in marketing tactics by these schools (Cohen & Brawer, 2008). The ever-changing definition of community college student has impacted the enrollment figures in a very positive way. Students that were classified as degree or non-degree were obviously included in the mix, but so were participants of community service events, single or multiple day workshops, and contract training of all types (Cohen & Brawer, 2008; Dougherty, 1994).

Underlying the enrollment increases are the reasons students had for attending community colleges. In analyzing the National Postsecondary Student Aid Study, Horn, Neville, and Griffith (2006) discovered that 33% of the students who chose community colleges did so to transfer to four-year schools, 43% to get an associate’s degree, 17% to attain a certificate, 42% to improve their job skills, and 46% for personal interest. In addition, some students had an economic incentive to save money by going to a school they could afford. Many of these students wished to reduce the overall cost of higher education by taking their first two years of a bachelor’s degree requirement at the community college and then transferring to a four-year school. Others had a psychological incentive and attended a two-year school because they did not do well in
high school and perhaps would be intimidated by a large university. Still others found social solace in attending a school close to home that resembled the high school from where they had just graduated (Horn, Neville, & Griffith, 2006). Salzman (2001) concurred with this assessment, stating “community colleges offer an opportunity (for students) to test their wings safely and gain self-confidence at low cost” (p. 118).

On the other hand, Salzman (2001) also suggested that community college students do not think of this type of institution the same way as they would a four-year college or university. The “familiarity” reasons cited early may have the opposite effect. That is, the local two-year school is too close in terms of course content, course textbooks, academic challenge, grading standards, teaching methodology, class administration, students, and literally the distance from their secondary school. Some students have equated these institutions to discount stores that function to offer products and services inexpensively. Even a school’s parking lot is set up like a K-mart or Wal-Mart – close to the classroom building entrances to cater to students come to school from a job, or leave school to go to a job. Few students stay on the campus for very long, thus the concept of student life is foreign and not practical. Still, surveys measuring students’ satisfaction show that they enthusiastically endorse the institution and the way they are being taught (Salzman, 2001).

**Student ability and performance**

One of the key attractions to a community college is its open access. This implies that anyone of a certain age and that has properly registered can enroll to take courses. This also implies that the school can expect a broad range of academic aptitude and skill level from these students. It is not surprising, then, that those instructors of community
college students would find them underprepared for the rigors of higher education. Kozeracki (2002) ascertained this fact after analyzing data from three recent national studies: the Higher Education Research Institute (HERI) faculty survey; the National Opinion Research Center’s American Faculty Poll; and the Carnegie Foundation for the Advancement of Teachings National Survey of Faculty. The HERI study reported that only 20% of community college instructors responding the questionnaire believed their students are well-prepared academically and only 32% of these teachers are satisfied or very satisfied with the quality of the students. The Carnegie study found that 66% of community college faculty concur that their students are underprepared in mathematical, reasoning, and communication functions, while the American Faculty Poll indicated that only 10% of the faculty were very satisfied with the student ability (Kozeracki, 2002).

Given these bleak assessments of community college student quality, academics have offered various opinions and research findings regarding how this affects the institutions’ goal attainment metrics such as persistence and transfer rate. As part of their analysis of students found in the NCES study on community colleges, Horn, Neville, and Griffith (2006) defined “more committed” students as those enrolled for at least half time and reporting that transferring or earning a credential were reasons for attending. Although the short-term persistence or attainment rate (i.e., the percentage of students in a given course who enroll in a course the following semester) of this classification is lower than that of first-time undergraduates in four-year institutions, the more committed group (49% of all studied) were less likely to drop out. Although this finding is corroborated in other studies (Cohen & Brawer, 2006), an earlier study by LeCroy and McClennen (as cited in Kroll, 1992) found an opposite trend when investigating Dallas
County community colleges. The authors noted that over 33% of graduating high school seniors stated their higher education goal was to enroll immediately the next fall into a local community college, reenroll the second year, and transfer to a state college after finishing their first two years. A larger percentage of these students dropped out before finishing year two than a similar group of older students who took fewer courses, left for one or two semesters, then came back and successfully completed their associate degree requirements.

Another measure of community college goal attainment is transfer rate. In attempting to explain this metric, Cohen and Brawer (2008) offered a somewhat humorous look at how community colleges define transfer students. They provided unique scenarios from each of five mythological students, and then posed the question: “How many of the five are transfer students? None, according to some reports; all, according to others” (p. 64). They go on to quote the 1989 definition of transfer rate by the Center of the Study of Community Colleges as

All students entering the community college in a given year who have no prior college experience, and who completed a least twelve college credit using within four year of entry, divided into the number of that group who take one or more classes at an in-state, public university within four years (p.64).

Using the above definition, most of the research pointed to an average transfer rate of 25%, although individuals states reported anywhere from 11% to 40% (Cohen &Brawer, 2008). As was indicated earlier in the study of community college transfer rates (see Jaeger and Eagan, 2008), this metric is somewhat linear, meaning that the longer the time period classes are being taken, the higher the transfer rate.

Several authors have offered reasons for the poor community college persistence and transfer results. Salzman (2001) pointed to the gentler Treatment of high risk students
by faculty, who they feel have “already have been beat up by the system” (p. 118).

Remedial or developmental students can work their way through the system, partly due to teachers evaluating their work by a less demanding standard than an essay. Consequently they fail at the higher course levels. Salzman also inferred that these lenient requirements may be a result of keeping adequate levels of enrollment so as not to lose subsidies from sources of revenue. A rather unorthodox perspective comes from Lofty (as cited in Giroux and Myrsiades, 2001), who elaborated on the community college students inability to deal with academic time. Lofty enlisted fellow academician Sue Kuykendall to explain this concept:

Community college students are the ones who could not or would not acquiesce to mainstream academic time…many CC students lack confidence, the confident CC student is a very powerful force against the reproduction of linear profession time. Temporal identities become visible typically only when students transgress our time codes, for example, by talking during instructional time or by handing in “late work.” We assume students should be on our (teachers) schedule. That is not always clear with community college students (p. 151).

Researchers cite more basic reasons behind the so-called lower-than-expected goal attainment performances. One of them is the nature of the community college student. These individuals follow a different, often more roundabout path through the system than the traditional college student. Many students do not have graduation or transfer in their sights. Rather, they are trying to acquire enough education to become a better employee or satisfy an interest in a particular subject. According to Salzman (2001) they care less about achieving a high grade, or even a passing grade. Completing an actual degree is of secondary importance to them alongside other commitments. The other reason for poor performance has to do with the previously mentioned community college goal of open-access. Besides increased odds of acquiring a less than academically stellar student,
another effect of open access is that these individuals may sign-up directly before the semester and begin classes without a clear plan of study. Despite the efforts of community colleges to demand advanced registration, course counseling and advisement, and other requirements, the conflicting desires of large enrollment and all things to all people philosophy keep open-access up front. Cohen and Brawer (2008) suggests that this philosophy is a “failure by design” (p. 78).

*Generational Differences*

In addition to the reasons why individuals choose community colleges and their varied levels of success, researchers have recently explored the generational differences inherent in the institutions’ student make-up. The range of students’ ages at two-year schools is much wider and leans toward the older and more seasoned person. Therefore, today’s college students are far more likely to be older and part-time than those of previous times. However, as graduating high school students by-pass the first two years of four-traditional colleges and universities in lieu of the lower prices, transferable courses and degrees, and developmental education opportunities available at a community school, instructors will be faced with teaching primarily two generations of students. For the purpose of this study, these generations will be defined as Millennials, or students born in 1980 and beyond, and non-Millennials, or students born before 1980. Because the majority of the students in this quasi-experiment are Millennials, the literature in this section focuses mostly on whom they are and their impact on the college classroom.
Millennials

Albert Einstein opined that while classrooms are many, “the number of young people who genuinely thirst after truth and justice is small” (Hoover, 2009, p.1). If one replaces “young people” with Millennials, one will receive agreement from some experts and disagreement from others. Characteristics of this assemblage of younger folk include more educated, affluent, numerous, ethnically diverse, willing to weigh in on social causes, ethically and morally grounded, optimistic about the future of society but also about themselves and what they can achieve (Lyons, 2004). Sweeny (as cited in “How the New Generation,” 2007) described them as students that rarely read newspapers – or for that matter, books. They are impatient and goal oriented. They hate busywork, learning by doing, and are used to instant feedback. “To get this generation involved, you have to figure out a way to engage them and make their learning faster at the end of the day” (p.1). This group has been both canonized by Howe and Strauss (2000, 2007) and ostracized by Twenge (2006), who ironically, is a Millennial herself. The most prolific contributors to the literature appear to be Howe and Strauss, having penned no less than four books on this generation alone. They based their profiles of Millennials from a medley of anecdotes and surveys of teachers and students from Fairfax County, VA. In their 2007 book Millennials Go to College, Howe and Strauss described this generation using a framework of seven characteristics: specialness, sheltering, confidence, team orientation, achievement, pressure, and convention. What follows now is a brief description of each characteristic along with what Howe and Strauss consider as implications for the college classroom.
The first characteristic, *specialness*, refers to the preferential Treatment the millennial has received not only from their parents but also from government legislation. Therefore, they expect to spend one-and-one time with faculty, receive plenty of feedback, and obtain state-of-the-art technology. In one focus group with Millennials Richard T. Sweeney (as cited in “How the New Generation”, 2007) a university librarian at the New Jersey Institute of Technology interviewed students as part of a focus group:

**Q:** If you have an option, would you like to have multimedia in the class?

**A:** In my core humanities class we watched a Charlie Chaplin short, and we read a bunchy of essays about the differences between how women evolved from the 1920s to the 1930s, 40s, and 50s. Ad we had to take the relationships we say on the Chaplin short and relate them to the essays that we read. I think it helped me a lot because it was fun and I learned a lot. (p. 3)

The second trait, *sheltering*, describes the stricter rules their parents have established, and by which they have had to abide. In the classroom, the authors imply that faculty must practice performance measurement discipline in the areas from grading for attendance and establishing and using assessment tools like rubrics. *Confidence*, the third characteristic, denotes that the millennial student is up to any challenge given them. Somewhat conversely, students are not as intellectually risk-taking and must be assured that taking risks will not hinder their academic standing. The fourth trait is *team orientation*. Howe and Strauss (2007) discussed this generation’s exposure to and use of digital technology, and being taught in K-12 with collaborative learning techniques. In the college classroom, group activities, be they semester or class period in duration have made for successful learning environments. Also, the authors suggested incorporating any
use of technology within the classroom walls (e.g., laptops and internet access) and outside the classroom (e.g., use of learning management systems like Blackboard). In a Letters to the Editor posting (Chronicle, 2/9/07) one faculty who has taught this group many times concurred, indicating that Millennials like technology in the classroom if it is used appropriately, but good teaching and experiential learning, with at least some face-to-face contact, are still much more important, “and droning lecturers are as boring as they always were” (p.1).

Howe and Strauss (2007) label the fifth trait as conventional, or “to aspire to balance and proportion in one’s life” (p. 138). Regarding classroom strategy, the authors warn against instructors having their own political agendas and opinions. Rather, they cautioned using history and historical analogies too often, as the Millennials use history to make life simple, and less for the sake of knowledge. The sixth characteristic, pressured, is implied by the authors to mean a need to achieve academic excellence, otherwise known as good grades. Therefore, Howe and Strauss stressed the need to clear definition and consequences of cheating. They suggested that students not only submit papers with proper citations, but also give interactive presentations requiring on the spot thinking and responding. The seventh and last trait, achieving, is explained by the authors as enjoying challenges and doing what it takes to overcome them. In the classroom, Howe and Strauss reported that since Millennials “have developed great skill at turning rapidly from one problem to the next” (p. 158). This can make it hard for them to focus at length on certain obscure concepts. The authors suggested using longer term, low-pressure immersive situations culminated with presentations and discussions.
Although Howe and Strauss have written much on the Millennials and other generation-type books (see *Generations*, 1990; *13th-Gen*, 1993; *The Fourth Turning*, 1997; and *Millennials Rising*, 2000), they are not the only authors of record on this demographic group, nor are they without their critics. Mark Bauerlein, who directed the 2004 study entitled “Reading at Risk: A Survey of Literary Reading in America,” recognized the creative talents of the Millennials but chastised them for wasting the modern tools of technology on “chatting, networking, and posting online updates about themselves” (Hoover, 2009, p.12). He also postulated that, in trying to cater to their thirst for technology, teachers might be “selling themselves to an audience that might not be interested in buying” (p. 2). Another critic, Fred A. Bonner II, described their work as narrowly focused on the experiences of majority populations. Bonner offered the view from a racial and ethnic perspective, indicating that the “specialness” trait so often applied to the Millennials does not have much support in a society where the children did not come from backgrounds where they felt safe, and the parents could not treat their kids as special due to lack of time and resources (Hoover, 2009).

One seasoned instructor (Stewart, 2009) who came out of retirement to teach two classes of Millennials, asked 20 students to fill out the California Psychological Inventory (Revised), and compared their data with results of over 7,300 students from 20 years prior. He found that the Millennials were less able to put themselves within others’ frames of reference and less able to understand how others felt. Stewart also indicated that they were more resistant to the demands of others, insistent on having their own way, indifferent to what others think of them, and irritable and unhappy. The chosen sample of students did not act in ways that indicated lack of caring for others, absence of good will,
or that suggested they were more irritable. Other researchers cite survey results from the University of California at Los Angeles-based Cooperative Institute Research Institutional. Their data suggest that that the changes described by Howe and Strauss happen more gradually, not immediately (Hoover, 2009).

Perhaps the greatest counter to the thoughts of Howe and Strauss comes from Jean Twenge, author of *Generation Me* (2006). Twenge, a Millennial herself, provided the antithesis of her peer group, using as a research base over 15,000 entries from the Narcissistic Personality Inventory from 1987-2006. She, too, suggested that changes to generations are linear and happen over a longer period of time. Twenge felt that the “special” and “sheltered” traits created a self-esteem, narcissistic culture, in no small part enabled by their parents. What the former authors considered the acts of Millennials as kind-hearted volunteerism, Twenge interpreted them as self-centered actions to fulfill National Honor Society requirements to help get them into college (Hoover, 2009). Citing interviews of other instructors, Twenge (2006) surmised that Millennials don’t question authority, but rather disrespect it entirely. The aforementioned self-esteem culture has bred a strong sense of student entitlement, so much so, one of Twenge’s interviewees noted, that “one student did not turn in research papers anymore, saying that he was entitled to do just as he pleased and refused to recognize my authority as the instructor, to determine what the assignments in the class should be” (p. 69). Another professor with whom she spoke indicated:

I had to throw out his traditional approach to higher education whereby teachers assume student take responsibility for their decisions…students learn that they do not need to respect their teachers or even earn their grades, so they begin to believe that they are entitled to grades, respect, or anything else…just for asking. (p. 70)
Also, Twenge discovered from her research that both Millennials and their parents expected teachers to be facilitators rather than authority figures, and that collaborative learning, not lecturing is the preferred teaching style. This last assessment has also been confirmed by Howe and Strauss (2007).

**Non-Millennials**

Unlike the group just described by Haney as “a bundle of contradictions” (Hoover, 2009, p. 5), their counter group is much larger in date range but smaller in classroom numbers. The non-millennial students are made up of two generations: baby boomers or those individuals born in the post WWII years of 1943-1962; and Gen Xers, born 1963-1979 (Tulgan, 2000). The baby boomer segment came of age as during a time of stagnant job growth and heated international job growth. Many of their parents had secure career positions with the leading corporation at the time, and were able to afford houses, cars, and education for their children. Their offspring that didn’t pursue college in the 1960s and 1970s probably acquired employment in a skilled trade or low- or semi-skilled professions (Tulgan, 2000). Whenever there is an economic downturn, Boomer population in the classroom increases. There are also many single mothers and single men, both with child-rearing duties, that attend community college. Other Boomers who enroll may have to care for their grandchildren or parents. Most wish to improve their job situation and, for many reasons, have postponed their higher education plans until now. This implies that community college is their first return to formal education in 15 to 30 years. Those that do have jobs may be chastised by their coworkers for leaving work early or arriving late in order to make their classes (Lyons, 2004). In general, these students learn experientially, appreciate real-life stories, and are problem-centered (Howe
& Strauss, 2000). However, they also are known to become anxious about tests, hesitant about technology, and may feel intimidated by the younger students who are fresh out of high school or have already completed a year or two of postsecondary education (Lyons, 2004).

The second group making up the non-Millennials is Generation X (Xers). According to Tulgan (2000), this group has been described as “cynical mopes, sullen and contemptuous, impetuous, naïve, arrogant, short on attention, and materialistic” (p. 39). The “X” was more of a marketing executive moniker that best fit a large number of people considered difficult to target market. Some, but not all of the Xers could be forgiven for, as Lyons opined, lacking self-discipline and academic foundation. They have accumulated significant debt on goods and services, their parents were probably divorced and perhaps remarried, and they were given another title of “latch-key kids” since they usually came home from school to an empty house because both parents needed to hold down jobs to make ends meet (Lyons, 2004). They saw their parents get laid off from long-term jobs and witnessed business and government leaders being disgraced, and took an understandably cynical view of authority, including professors. Given their up-bringing on video games, Xers seem to have exceptionally short attention spans. Structure, clear communication of expectations, use of charts, diagrams, and other visuals including web-based content and use of popular personality have been known to resonate with Generation X in the classroom (Howe & Strauss 2000, Lyons (2004), and Tulgan, 2000).

LeCroy and McClenny (1992) summarized the generational differences from the perspective of the professor: “they have discovered what may work for residential, full-
time, young, well-prepared liberal art students will not work the same way for adult, commuting, part-time, employed community college students with family responsibilities” (p.41). In the next section, I explore the faculty that deals with these students and their challenges.

Community College Faculty

In the United States higher education system, there are over 1.2 million people classified as faculty, be they graduate assistants, lecturers, or professors. Of these, 360,000 teach at community colleges. And within that number, 70% of these faculty appointments were designated as part-time, contingent, or, as this document will use, adjunct instructors. This is up from 52% in 1987 and just 27% in 1969 (Snyder, Dillow, & Hoffman, 2009). The literature in this section takes a look at full-time and adjunct community college faculty, examines their employment characteristics, their perspectives philosophies of the institution toward their employment, their own perspectives toward teaching in this environment, and they and others attempts to measure community college faculty performance.

Full-time community college faculty

In this report, community college full-time faculty are defined as one FTE (full-time equivalency) employed at a two-year college, and given similar compensation and benefits as any other full-time employee at said college, with obvious differences in areas such as salary, overload, office hours, and if applicable, tenure track systems (Cohen & Brawer, 2008). Full-time faculty members usually hold a master’s degree and may have equivalent experience in the occupations they teach. They are less likely, however, to hold a post-graduate degree than their four-year school peers, although the number of
community college faculty obtaining this terminal degree has increased from 5% to almost 20% since 1920. The community college professor’s main job is to teach, averaging four to five classes, or 15-18 semester credit hours per term. The average age of a full-time instructor is almost 50 years old, an increase from 39 years old in 1987. There are just as many men as there are women in this designation, although that statistic favored the males, 62% to 38% twenty years ago. Also shifting was the percentage of minorities employed as full-time teachers, where now 20% of all instructors are in this category compared to only 9% in the 1980s (Cohen & Brawer 2008). In the case of the seven full-time business faculty at the study’s institution, one instructor is black, four are male, the group’s average age is 47 years old, and all have an MBA or master’s diploma and averaged 10 years of non-educational employment, most of which was in a manufacturing, human resources, sales, or purchasing discipline within a for-profit organization (Snyder, Dillow, & Hoffman, 2009).

The institutional culture of the community colleges was built in part on the pervasive belief that scholarly efforts outside of the classroom divert attention from teaching and constitute a disservice to students. Hawthorne (as cited in Baker III, 1994). In general, this new type of institution was not supportive of scholarship. Given this philosophy, these institutions did not apply pressure to the faculty on anything other than instruction. This apparently crossed over to the preparation, screening, and selection of instructors, as these processes were described as “sporadic, ad hoc, and loosely tied to the needs of the institutions” (p. 407). In fact, prior to the 1960s, hardly any junior college faculty had taken courses on the community college, but that improved to over 33% by 1970 (O’Banion, 1994). Moreover, when the liberal arts courses were brought to the
community colleges, the scholarly discipline and rigor usually did not accompany them. Instructors, exercising a type of academic freedom, taught these subjects the way they wanted to, with college-wide common textbooks and examinations scarcely employed. Teaching across the curriculum was popular, as over 86% of faculty taught a discipline in which they did not major (Eells, 1941). Even today, the liberal arts specifically do not have the infrastructure (e.g., sizable on-campus libraries) to support the course offerings. Cohen and Brawer (2008) suggests that disciplinary affiliation is also weaker at the community college compared to a four-year school, as there are no incentives from administration or by the instructors themselves to conduct scholarly research or belong to academic associations. They liken the design, implementation, and monitoring of academic programs by accreditation teams, chairpersons, and deans as “curriculum without a rudder” (p. 474).

For the novice full-time community college faculty, their first endeavor in this type of institution is met with concern over the low levels of achievement of their students, lack of scholarly discipline from their peers, a broadened and fragmented college mission, an ambivalent and sometimes hostile attitude toward research, and a 29% difference in salary from a four-year school professor with same experience (Cohen & Brawer, 2008). The attitude of a majority of community college professors, according to Eagan (2007), appears to be lukewarm regarding workload and institutional rewards for teaching (76% satisfaction rate), salary (67% satisfaction rate), and perception of being treated fairly by their employers (65% satisfaction rate). Palmer (1994) offers two hypotheses that helps explain some of this disconsolate evaluation of the profession by its members. The first speaks to an “acculturation process that diminishes faculty effort in
instructional innovation and disciplinary scholarship” (p. 429). Reasons supporting this line of thought include heavy credit hour load, laissez-faire attitude toward scholarship, students with poor academic skills, and the school’s drive to increase enrollment without concern for admission standards. The second hypothesis relates to a resignation of the responsibilities of student learning by the faculty because they feel their real mission is helping students. The process and results of teaching are of secondary importance.

Despite the shortcomings in the job, 92% of the same full-time faculty indicated that they were somewhat or very satisfied with their job, according to National Study of Postsecondary Faculty (Heuer et al, 2006). Many of these instructors appreciated the fact that they could concentrate on teaching to gain tenure rather than on research and publishing like their four-year counterparts. They also seemed to appreciate their administration not pressuring them to join outside organizations or concentrate on areas other than pedagogy. Cohen and Brawer (2008) postulated that the community college professor believes that allegiance to a profession can have negative effects, citing the senior colleges and universities whose faculty, after spending too much effort on research and scholarship, has foregone teaching. Regarding promotion, two-year professors appeared to ignore the argument that their next appointment will be at a four-year school. On the contrary, they found compensatory reward in overload assignments and textbook reviews, and self-esteem reward in sabbaticals and conference speaking opportunities. Most are willing to view their community college position as “a career in its own right” (p.110).

Full-time community college professors are evaluated in ways similar to their full-time four-year peers – and part-time instructors for that matter – using both
summative and formative student-based evaluation techniques. These instructors appeared to have accepted the idea that student evaluation of their instruction can be a tool for improvement, and are also willing to listen to their colleagues’ advice and feedback. Student and peer commentary seem to satisfy those to whom the full-time faculty report (Cohen & Brawer, 2008). In general, only instructors who blatantly violated institutional codes of ethics (e.g., not showing up for classes, substance abuse, illegal use of company property and technology) are disciplined or fired. On the other hand, comprehensive studies on this segment of the faculty in and of itself have been minimal. However, there exist several studies beginning in late 1970s that have attempted to measure the effect of adjunct instructors on various student and institutional outcomes. A number of these works use full-time faculty statistics as comparative measures. These can be found in the next section entitled “adjunct performance.”

*Adjunct community college faculty*

Considering the extraordinary growth in community college student enrollment, it stands to reason that there would be a similar increase in the fastest growing sector of their instructors: the community college adjunct professor. This expansion has spawned focused literature regarding their classification, their feelings about being an adjunct, their struggles to be unionized and compensated fairly, and their effect upon student outcomes (e.g., Gappa, 1984, 2008; Jaeger & Eagan Jr., 2009; Jaeger & Hinz, 2008).

In this study, adjunct faculty are defined as any instructor, lecture, or professor that is not a full-time employee of the academic institution for which it provides instructional duties, receives little or no employment benefits from that institution, cannot teach more than 9 – 12 credit hours per semester, is paid a fraction of a full-time
counterpart, and is not on any tenure track other than seniority systems that measure years taught at a particular institution for the purposes of pay rate and course assignment and priority (Gappa, 1984). Similar to their full-time two-year colleagues, most of these instructors usually hold a master’s degree and some but not all have experience in the occupations they teach. Also similar are the demographical statistics between the two. The average age of an adjunct instructor is just over 49 years old, an increase from 44 years old in 1987. There just as many men as there are women in this designation, although that value favored the males, 60% to 40% twenty years ago. Also shifting was the percentage of minorities employed as full-time teachers, where now 16% of all instructors are in this category compared to only 9% in the 1980s (Cohen & Brawer, 2008, Heuer et al, 2006).

Gappa and Leslie (2002) report that over one-half of part-time community college instructors responding to a Center for the Study of Community Colleges (CSCC) survey were employed elsewhere in nonteaching jobs. Roughly 60% of these teachers worked more than 30 hours a week at those positions, and only 15-17% of all two-year college adjunct instructors have more than one postsecondary teaching job at a time. In the case of my institution, over 60 adjunct instructors are employed by the School of Business every semester, teaching everything from accounting to sales management. Most do have real-world business experience, but several are full-time graduate students or previous full-time academicians that were recently laid off from their former institutions (H. Bohleke, Ph.D., personal communication, March 5, 2010).

Adjunct faculty has varied reasons for choosing to be a contingent instructor, just as colleges and universities have varied reasons for hiring them. Scholars point out that.
Gappa (1984) pointed out that working part-time in academia is much different that working part-time in another industry. She also noted that the use of adjunct instructors correlates considerably with number of part-time students. At the onset of the utilization of the part-time teachers, most were employed full-time as high school teachers and university professors, and worked at community colleges to earn extra money. Presently, they are made up of what Cohen and Brawer (2008) define as volunteers (e.g., retired teachers, business or professional people or other citizens) or captives (e.g., graduate students or teachers with no other source of income, most of who aspired to full-time employment).

In a comprehensive study funded by the American Association of University Professors in 1976, Tuckman provided the first comprehensive taxonomy of adjunct faculty traits (Gappa, 1984). Over 3,700 responses from 128 academic institutions yielded the following seven mutually exclusive categories: semiretired; students employed at institutions other than where they were pursuing a graduation degree; hopeful full-timers; full-mooners, who held another primary job at least 35 hours per week, including full-time tenured faculty teaching overload courses; homeworkers that are geographically immobile; part-mooners who held another primary job for less than 35 hours per week; part-unknowners whose reasons for taking adjunct positions were unknown, transitory, or highly subjective (Gappa, 1984, p. 27-28). Another categorization schema of adjunct faculty is “planned” or “contingency” (McCabe & Brezner, as cited in Gappa, 1984). Planned adjunct faculty positions refer to those assignments that are filled semester after semester, and the slots are usually determined long before the beginning of the academic period. Contingency adjunct faculty positions
fill an unmet demand that was not already filled by either full-time or planned adjuncts. Usually the appointments for contingency adjuncts are for one semester at a time.

Most scholars agree that among the many reasons that both two- and four-year institutions have had such a voracious appetite for hiring adjunct instructors; low cost and maximum flexibility clearly stand out as primary (e.g., Cohen & Brawer, 2008, Gappa & Leslie, 1993). Differences in pay between a part-time and full-time community college instructor range between 50 and 70%. In a 2006 California study, the pay rate for a three credit hour course was $9,000 for a full-time professor, compared to only $3,000 for the adjunct. Furthermore, less than 10% of part-timers receive any kind of life or health insurance, although, in most cases, they are included in the state teachers’ retirement systems (Cohen & Brawer, 2008).

As for flexibility, the colleges have the advantage of choosing someone perhaps more acquainted with their field of expertise than a full-time professor because the adjunct may be already working in that discipline. It also allows the community college to add an odd course that no one else in the department can or desires to teach. Colleges can contact an adjunct at the last minute in order to fulfill unanticipated demand. Analyses by Gappa (1984) and Gappa and Leslie (2002) cite numerous occasions where up to 41% of part-time instructors were notified less than a week before classes began to teach a section added to satisfy student demand. In comparison, a very small percentage of four-year part-time teachers were ever given such short notice. Lastly, adjunct instructors are overrepresented as teachers for classes held on days and at times that their full-time peers pass over, such as evenings and weekends. Not coincidently, these are the same days and times most part-time students sign up for (Cohen & Brawer, 2008).
Another institutional advantage for hiring part-time instructors has to do with external third-parties: courts and labor unions. Most adjuncts operate under an “at-will” status, meaning that they are subject to termination for any cause at any time. Although it is rare for part-timers to be let go during an academic period, it is also rare for them to receive anything but term contracts – paid just for the term – and then let go and rehired for the next term (non-renewable). Gappa (1984) cites two U.S. Supreme court cases, Perry v. Sinderman [408 U.S. 593 (1972)] and Board of Regents v. Roth [408 U.S. 564 (1972)] as having set the precedent for colleges to deal adjuncts. In these cases, the courts determined that adjunct instructors do not have a right to due process in the non-renewal or termination of employment unless they can show that they have property rights; and most contracts make it very difficult for part-timers to have property rights. In addition, institutions can argue that part-timers perform fewer tasks than full-time faculty and are employed on different terms. Therefore, the colleges can argue that there are legitimate reasons for providing part-time faculty lower pay and fewer benefits.

Adjuncts are also rarely represented by organized labor. Part-time faculty first attempted to organize in 1971 at Long Island University. At first, the National Labor Relations Board ruled in favor of the upstart union attempt, and then reversed their decision in 1973, stating:

After careful reflection, we have reached the conclusion that PT faculty do not share a community of interest (e.g., compensation, participation in university governance, eligibility for tenure, and working conditions) with FT Faculty and, therefore, should not be included in the same bargaining unit.” (Gappa, 1984, p. 7)

Most cases brought to the National Labor Relations Board (NLRB) since this decision and one at New York University in 1973 have resulted in the exclusion of part-time faculty in most collective bargaining agreements. (Gappa, 1984). Two recent successes of
union organizing include the United Auto Workers (UAW) and Service Employees International Union (SEIU), both of whom won union certification at two and four year institutions (see ACT-UAW, 2010.). In cases where they are part of a collective bargaining agreement they fare well in compensation, working conditions, property interest (and rights to continued employment) They have not done well with tenure, bumping rights, governance, grievance due process, and benefits (Umbach, 2007). The three national faculty unions, the American Association of University Professors, the National Education Association, and the American Federation of Teachers are showing supporting for the part-time union movement, but have professed that the best way to “maintain higher education quality is to convert the part-time positions into full-time ones” (June, 2009, p. 2).

Similar to the full-time community college instructor, adjunct faculty also derive a high level of fulfillment from their jobs. Eagan (2007) reported that 92% of the part-time instructors who responded to the National Study of Postsecondary Faculty were either somewhat or greatly satisfied with their jobs, up from 90% in 1987. The same survey reported that 83% of adjuncts agreed that teaching was rewarded at their respective institution, and more than 75% agreed that they were treated fairly. Both of these figures were greater than what was provided by full-time faculty. Gappa (2008) indicated that Carnegie Foundation surveys over the years show that adjunct faculty is generally satisfied with their choice of academic career and institution. Other research on full- vs. part-time faculty satisfaction (Cohen & Brawer, 2008) point out adjuncts are happier than full-timers regarding the attractiveness of their college position and experience less stress in the job. According to Eagan, these results were somewhat surprising given that almost
half of adjuncts were very dissatisfied or somewhat dissatisfied with their salaries and a third were dissatisfied with their benefits. Job security showed another area of concern, as only 56% of part-timers felt secure in their positions. Other areas of discontent were lack of office space, support services, and sharing of information about teaching methods, materials, and student problems. However, Leslie and Gappa (2002) reported that community colleges have learned to be more productive in this area than four-year schools because they employ so many more adjuncts.

Despite the mixed review, Gappa and Leslie (1993) analyzed the responses of part-time faculty during 18 site visits and split the reasons why these instructors chose this situation into intrinsic and extrinsic motivators. Extrinsic motivators included money, status, and the opportunity to acquire a full-time academic position, as in many of these situations, the adjuncts needed financial security. However, their data also suggested that money was not the principal reason for becoming a part-time teacher. The authors believed that intrinsic factors such as personal development, social interaction, and community or professional service. Many instructors felt “obligated to return debts to institutions, society, or even to parents” (p.37). Others considered themselves to have a special gift or ability to help people improve, especially the young people from their particular ethnic or cultural background. These teachers, according to Gappa and Leslie, had an altruistic wisdom toward this profession and their students (1993).

Beginning in the late 1970s, the performance of the adjunct instructor and their effect on student and institutional outcomes has been under significantly more scrutiny in comparison to their full-time two-year and four-year peers. The first comprehensive study of note was done by Friedlander in 1980 that compared full- and part-time faculty on 11
criteria that he considered likely to affect instructional excellence (Gappa, 1984). He analyzed the data from studies performed by the Study of Community Colleges in 1975, 1977, and 1978. Examples of the criteria under review were teaching experience, selection of course materials, use of instructional media, use of instructional support services, availability to students, and involvement in professional activities. Friedlander surmised that differences in the criteria were the result of education and experiential preparation of adjunct faculty and in part of institutional policies and practices. He further posited that being immersed physically in an institution of higher education increases the odds of properly conducting a course. Knowledge of the culture and workings of an organization leads to support. As the proportion of part-time to full-time instructors increase, the less support is provided and, consequently, the greater the chance that inferior education will be delivered (Friedlander, as cited in Gappa, 1984).

Although Friedlander was criticized because he didn’t use “harder” criteria (e.g., results achieved, performance in follow-up courses, attrition rates, and changes in attitude), studies over the next several years that did attempt to measure such metrics did not lead to any conclusive findings (Behrendt and Parsons, 1983; Cruise, Fust, & Klimes 1980; Hammons 1981, as cited in Gappa, 1984). Leslie, Kellams, and Gunne (as cited in Gappa, 1984) summarized the unconvincing results of the multiple studies by indicating that “it appears that part-time faculty by themselves do not detract from the quality of instruction, and that they can enrich it greatly. The key lies in how they are selected supported and assigned” (p. 140).

More recent studies have attempted to quantitatively link adjunct faculty performance to broader student and institutional outcomes. Umbach and Wawrzynski
(2007) attempted to explore the impact of adjunct faculty on undergraduate education by analyzing a large data set of almost 18,000 faculty members from 130 institutions, using the Faculty Survey of Student Engagement administered by the Indiana University Center for Postsecondary Research. He discovered that increased faculty-student interaction leads to positive outcomes, “including increased cognitive and affective development, improved academic performance, increased likelihood of persisting, and increased overall satisfaction with the college experience” (p. 174). The author also found that, compared with full-time faculty, adjunct instructors advised students less frequently, used active teaching techniques less often, spent less time preparing for class, and was less likely to participate in teaching workshops. In addition, Umbach and Wawrzynski stated that full-time instructors did not feel as committed to their institutions when those same colleges and university employed large amounts of adjuncts. He suggested that full-timers felt threatened about losing their jobs and subsequently gave only the minimal effort in their jobs (Umbach, 2005).

Another study by Jacoby (2006) attempted to measure the effect that adjunct faculty had on community college program completion rates. The study incorporated institutional data, including graduation rates, compiled by the National Center for Educational Statistics. The findings indicated that increases in the ratio of part-time faculty at two-year schools have a highly significant and negative impact upon graduation rates. In other words, community colleges with higher percentages of full-time faculty members have higher completion rates. Jacoby acknowledged that graduation rates were an inferior metric because many of the institutions’ students don’t seek degrees. He added that expanding part-time faculty appears to outweigh any benefits gained by doing so,
and that the completion rate would disappear if adjuncts were paid for time on campus so they would be motivated to interact more with students.

The last significant study by Jaeger and Eagan (2009) endeavored to measure the effects of exposure to adjunct faculty on community college transfer. This study utilized student transcripts, faculty employment, and institutional data from the California community college system, compiling information from two cohorts of first-time, credit-seeking students in 2000 and 2001 and their college-going behavior over five years. Based on their findings, they suggested that students tend to be significantly less likely to transfer as their exposure to part-time faculty increases. Specifically, they cited that for every 10% increase in students’ exposure to adjunct faculty instruction, these students tended to become almost 2% less likely to transfer. For example, students that had 40% of their courses with an adjunct instructor were 8% less likely to transfer to a four-year baccalaureate program. Additionally, students who had 100% of courses with part-time instructors were 20% less likely to transfer. For these cohorts, the students had 38% of their academic credits with part-time faculty during the time in which they were enrolled at their institution. One critique of the Jaeger and Eagan study was that the researchers may have underestimated student success by only tracking the students five years (Schmidt, 2008). In general, the message from all three studies was consistent: do not blame the adjuncts – blame the institutions for not providing them proper support, compensation, and for not hiring them as full-time faculty (Jacoby, 2006; Jaeger & Eagan, 2008; Umbach, 2007).
Pedagogical techniques

The literature review shifts from the community college environment to higher education pedagogy. Specifically, this section will explore the literature pertaining to teaching techniques employed by only one-fifth of college professors (Svinicki and Dixon, 1987). These concepts will be presented hierarchically, starting with active learning, then the experiential learning theory (ELT), and finally popular culture and popular culture media as a training technique. Also in this section the conceptual framework for this study, Kolb’s ELT, will be introduced. This learning model will also serve as an instructional design tool for providing a consistent framework with which to create learning experiences for both Control and Treatment Groups, therefore having a significant influence on several of the hypotheses to be tested in this quasi-experiment.

Active learning

In its simplest terms, active learning can be defined as instructional activities involving students in doing things and thinking about what they are doing (Bonwell & Eison (1991). Activities include structured exercises, directed discussions, group assignments, service learning, internships, and others. In the context of this study, the use of popular culture media such as feature films, film clips, television, and other forms, coupled with well thought-out exercises would fall into the category of active learning. Bluestone (2000) posited that active learning, through film, involves a “minds-on” approach to stimulate students’ active mental engagement with concepts. Gregg (1995) suggests that using feature films can promote active learning in the college classroom many ways, including catering to their different types of learning styles and their general liking for the medium. Also, placing concepts and theories into a context that relates to
their real life experiences makes these ideas less vague and abstract and more understandable and relevant.

Research has shown that there is a need for the use of active learning instructional techniques. Chickering and Gamson (1987) suggests that students must do more than just listen – they must read, write, discuss, or be engaged in solving problems. To be actively involved, students must engage in such higher-order thinking tasks as analysis, synthesis, and evaluation. A recent National Survey of Student Engagement (Belcheir, 2003) indicated that college campuses where faculty employs active and collaborative learning techniques have students who were more engaged. The study also proposed a positive relationship between college environments where faculty used active and collaborative learning techniques and student gains. On campuses where faculty reported frequent use of active and collaborative learning techniques, students were more likely to engage in active and collaborative learning activities. There are several cognitive effects from using this type of pedagogy. Sarason and Banbury (2004) stated that the higher active learning is more likely to draw upon the higher levels of Bloom’s taxonomy, such as analysis, synthesis, and evaluation. Perry (2004) stipulated that these methods require students to participate actively in the learning process, which leads to increases in course interest and in students’ intrinsic motivation. Also, by increasing the cognitive demands place on students, active learning stimulates learning at higher cognitive levels. From an institutional standpoint, the community college can find benefit from this teaching style. LeCroy and McClenney (1992) proposed that active learning, along with carefully conceived small-group work, peer interaction, and frequent opportunities for feedback from the instructor helps to deal with the diverse community college student population.
Finally, Michel, Cater III, and Varela (2009), after conducting a thorough quantitative study comparing active vs. passive learning styles on student learning outcomes, found evidence that active learning can lead to improved cognitive outcomes in class-specific materials.

Despite its seemingly overwhelming endorsement, active learning does not always find its way to higher education classrooms. Bonwell and Sutherland (1996) identified several barriers to using this educational approach. Because of the time required for setting up, executing, and debriefing an active learning event, many instructors feel that they wouldn’t have enough time during the class period or term to cover the required content. In addition, the time required to prepare beforehand is time taken away from normal lecturing research. The authors cite logistical reasons as well, including lack of materials, resources, instructions, and the very nature of large lecture halls and number of students involved. In addition to these barriers and limitations, Bonwell and Sutherland (1996) described an inherent fear from instructors about how their colleagues might perceive the legitimacy of the approaches, how they might be evaluated by students, and how these perceptions and evaluations might affect their chances of promotion or tenure.

*Experiential Learning Theory.*

An associated concept to active learning is experiential learning, in which students learn from relevant experiences offered during instruction. In this study, these instructional experiences will be limited to the classroom. David A. Kolb (1984), a professor of management at Case Western Reserve University who developed the Experiential Learning Theory (ELT) in the late 1960s, defines experiential learning as
“the process whereby knowledge is created through the transformation of experience. Knowledge results from the combination of grasping and transforming experience” (p. 41).

Experiential learning as an integrated theory draws on the work of Kurt Lewin, Jean Piaget, and Paulo Freire, and is supported by several theories of learning, including pragmatism, social psychological, and cognitive-development. ELT is one of the most written, cited, incorporated, and criticized of all learning models, with well over 2,500 studies, referred articles, dissertations, and papers authored over the last 40 years (Kayes, 2002). Although ELT encompasses the extended hypotheses of development and learning styles (e.g. the Kolb Learning Style Inventory Instrument), this review will focus solely on its learning process proposition, called the Experiential Learning Cycle (Kolb, 1984), and its applications to instructional design. Drawing from the Lewinian Experiential Learning Model, Dewey’s Model of Experiential Learning, and Piaget’s Model of Learning and Cognitive Development, it describes a four-stage learning cycle or spiral where the learner “touches all the bases – experiencing, reflecting, thinking, and acting - in a recursive process that is responsive to the learning situation and what is being learned” (Kolb & Kolb, 2005, p.1).

According to Kolb, the act of learning rests on six assumptions:

- Learning is a process, not an outcome
- Learning derives from relearning, or experience
- Learning requires the resolution of conflicts between dialectically opposed modes of adaption to the world
- Learning is holistic and integrative
• Learning requires interchange between the environment and the person
• Learning is the process of creating knowledge (p. 2).

According to learning cycle, knowledge entails the interplay between acquiring experience and transforming experience. The acquisition of experience requires the student to relieve the tension between apprehension, or concrete experience, and comprehension, or abstract conceptualization. Apprehension of knowledge comes from feelings, emotions, and sensory perception, while comprehension of knowledge results from abstract concepts and symbolism. This acquired knowledge through either apprehension or comprehension interacts with the transformation of knowledge. This dimensional aspect is also dialectically at odds with two experiential poles: reflective observation and active experimentation (Kolb, 1984). In reflective observation, the student associates experiences with those previously acquired, or gaining knowledge by intention. In contrast, when the student extends beyond personal reflection and into external application of the knowledge, they have crossed over to the active experimentation pole. Placed onto a cyclical framework, the two sets of opposing dimensions - concrete experience (CE) and abstract conceptualization (AC) - and reflective observation (RO) and active experimentation (AE), form the experiential learning cycle (see Figure 2.1).

Applications of ELT

Despite research indicating both students and instructors desire to experience alternate forms of teaching methods, a HERI study indicated that only 20% of community college and four-year instructors use experiential methods versus 71% discussion and 53% extensive lecturing (Svinicki and Dixon, 1987). These authors suggested that few
instructors change their teaching methods primarily because they emulate the traditional ways they were taught in their own undergraduate and graduate experiences. They added that many professors do not use these techniques due to time pressures, lack of familiarity with the new techniques and too much familiarity with the old ones, and fear of not succeeding. The authors also indicated that perhaps another reason for this trepidation was the lack of a theoretical framework for coordinating the different pedagogical methods. Based on their analyses, they created an instructional design model based on the ELT that presented to teachers wide range classroom activities that would lead their students through each stage of the full cycle of learning. Figure 2.2 incorporates the ELT cycle with learning experiences denoting each of the four stages of the model. In order to complete a full ELT cycle, the instructor would select an activity from each pole and direct the students through them sequentially (Svinicki and Dixon, 1987).

For instance, if a business professor wanted her students to describe the power elements of leadership (e.g., power, legitimate, coercive, etc.), she might first show a film clip of the opening speech in movie Patton where the actor portraying General Patton is
Figure 1. Kolb’s Experiential Learning Theory Cycle
Figure 2. Kolb’s Experiential Learning Theory Cycle with activities

**CE Activities**
- Primary reading text
- Articles
- Media (film, television, radio)
- Examples

**AE Activities**
- Case studies
- Exams
- Homework
- Presentations

**AC Activities**
- Lecture
- Projects
- Analogies
- Papers

**RO Activities**
- Discussion
- Brainstorming
- Logs
- Journals
addressing the troops before being deployed in WW II (concrete experience). Each student could individually record those behaviors and statements of the actor and which power elements are displayed in the clip (reflective observation). The instructor could lead a discussion confirming the elements from the movie as well as how these power elements might apply to current business leaders (abstract conceptualization). Finally, the original learning objective outcome could be measured by the number of correct responses to pertinent questions on an exam (active experimentation). Svinicki and Dixon (1987) added that a specific activity might fit into more than one stage depending on the technique’s objective. In this particular example, the showing of the film clip, while originally designated as a concrete experience component, could also be used as part of the active experimentation phase, where the students could then point out examples of leader power elements. Their concrete experience in this case could be simply reading the textbook pertaining to this topic. As the authors state, “instructors…must give greater consideration to the functional use of the activity than to the activity itself” (p.144).

Two empirical studies across non-business and business disciplines help illustrate the process of assigning activities to the four ELT poles. In the first, Burton (2008) used the X-Men film series to help her students gain a deeper understanding of the role of personal ethics. She broke down the ELT cycle elements the following way: students would watch the X-Men film (concrete experience); identify the concepts of ethics and leadership (reflective observation); integrate the perceived ethical considerations and leadership qualities into various environments (abstract conceptualization); create in an essay their own superhero identity based on ethical leadership principles that combats unethical organizations (active experimentation). In a business-related study, Li,
Greenberg, and Nicholls (2007) adopted the ELT stages in their class research involving the use of a simulated MBA marketing course in place of the purely lecture-based pedagogy. They allocated student assignments to the Kolb cycle as follows: take on assigned role of a marketing executive participating in functional activities (concrete experience); observe consequences of their activities and ask questions about market viability and customer response to product features (reflective observation); develop explanations about customers’ responses and product performance (abstract conceptualization); apply their assumptions with the objective to improve product performance (active experimentation).

As mentioned previously, critics have attacked the ELT model for its theoretical limitations regarding psychodynamic, social, and institutional (Kayes, 2002). Of these criticisms, the one that most closely impacts this study deals with the social aspects of learning. Holman and others believed that Kolb focuses too much on the individual and ignores the social and historical position of the learner. He proposed that the ELT should be “reconceptualized based on constructivist theory” (p.143), drawing upon Vygotsky’s social learning theory (Kayes, 2002). Ironically, Kolb (1984) does cite Vygotsky’s constructivist influence by stating that “learning becomes the vehicle for human development via interactions between individuals (p. 133). A counter to not only this argument but the entire learner-centered pedagogy is contained in a recent article that is relevant to this study by Miranda (2009). A community college practitioner and researcher, he contends that a mixed approach including behaviorist or teacher-centered instructional teaching techniques may work better for the community college student who comes to the classroom deficient in three basic areas: 1) academic preparedness; 2)
academic skills; and 3) academic self-confidence (p.25-26). Miranda suggests that directed instruction methodologies that entail teacher directed and controlled activities that keep negativity down and student confidence up would be more successful than placing all of the learning responsibility upon an unprepared student. In a recent study entitled *Find Your Classroom*, he cites positive trends in community college student engagement when a combination of learner-centered and teacher-centered pedagogy is incorporated, with heavier application on the latter in the early stages of the course (Miranda, 2009).

*Popular culture as a pedagogical tool*

A natural extension of the associated concepts of active learning and ELT is the use of specific techniques like popular culture and popular culture media. In this section the focus of the research will be empirical and non-empirical studies related to using popular culture as a pedagogical tool. Within each of these subsections writings taken from the fields of business and non-business education will be presented. In the last section of this chapter, literature that explores popular culture as a concept and field of study will be provided.

Ray Browne (2005), a scholar and pioneer in making his discipline a respected field of study, provided his perspective on the meaning of popular culture: “Most important, the popular culture of a country is the voice of the people – for better or worse, their likes and dislikes, the lifeblood of their daily existence, their individual and national way of life” (p. 11). Unlike the struggles for acceptance for popular culture as a field of serious scholarship (see Browne, 1989), the use of popular culture media as a pedagogical tool has received a far more gracious reception into the world of
instructional design. An initial investigation into this instructional technique resulted in well over a thousand results. The first group of these contributions provided either anecdotal opinion or empirical evidence that suggested incorporating popular culture in lesson plans and existing instructional media was preferred by students over didactic systems (e.g., Boyatzis, 1994; Champoux, 2001, 2004; Giroux, 1994). The literature in this segment documents how pedagogy is made better with popular culture, the types of popular culture media used in instruction, limitations with its use, and empirical studies implementing this approach.

**Popular culture as pedagogy**

The term pedagogy, like popular culture, has generated various viewpoints from educational scholars, ranging from the simple (i.e., methods to teach something) to the abstract (i.e., commentary on fashion, lifestyle, and morality). Giroux and Simon (1988) offered the following comparison of popular culture and pedagogy:

> At first glance, the relationship between popular culture and classroom pedagogy may seem remote. Popular culture is organized around pleasure and fun, while pedagogy is defined largely in instrumental terms. Popular culture is located in the terrain of the everyday, while pedagogy generally legitimates and transmits the language, codes, and values of the dominant culture. Popular culture is appropriated by students and helps authorize their voices and experiences while pedagogy authorizes the voices of the adult world, the world of teachers and school administrators. For both liberals and radicals, pedagogy is what is left after curriculum content is determined. (p.11)

Giroux (1994) appeared to disagree with the limit placed on this concept. In *Disturbing Pleasures*, he made a case for the broader view, enhancing the explanation to include “complex relationships among knowledge, texts, desire, and identity; it signals how questions of audience, voice, power, and evaluation actively work to construct particular relations between teachers and students, institutions and society, and classrooms and
Communities” (p. 29-30). For this particular study, the former, more straightforward meaning of pedagogy is appropriate.

The opening foray for most popular culture proponents is that people are bombarded with its media forms everyday (e.g., Guy, 2007; Tisdell, 2007; Thompson, 2007; Twenge, 2006), and it would behoove instructors to take advantage of this plentiful resource. The so-called culture industries of the press, television, cinema, radio, and the like cater to the insatiable demand of consumers of popular culture by producing products that entertain, excite and stimulate (Guy, 2007). Tisdell added that the messages from these products, in addition to dynamic and static advertising “affect who we are and how we think about ourselves and about other people” (2007, p. 9). This consumption is not limited to any one generation, of course, as many of these forms have been in existence for decades. Regarding her own “demographic”, the Millennials, Twenge (2006) wrote “this is where the culture lives and breathes, especially for a generation that has always enjoyed cable TV with one hundred channels” (p. 10). Fink and Foote (2007) made a case for using The Simpsons teach Gen X and Gen Y higher education students because it “often critically reflects recent events that continue to shape the future for members of those generations” (p. 46). In a similar vein, Wright (2007) argued that educators need to understand the popular culture in which their students live and learn and how it affects their lives, and further posited that educators need to recognize the power that popular culture and entertainment media have in order to meet students wherever they live.

For good or bad, Guy (2007) provided some startling facts from Media Education Foundation about the impact of television on Americans:

- The average adult watches four to five hours of TV per day.
• Four hours of TV programming contain about one hundred ads.
• The average American child sees 200,000 violent acts by age eighteen.
• The average American youth spends 900 hours in school and 1,023 hours watching TV every year.
• Nearly three in four teenagers say that the portrayal of sex on TV influences the sexual behavior of their friends, while one in four says it influences their own.
• The average American sees two million commercials by age sixty-five.
• Thirty percent of local TV news programming contains ads. (p. 17)

Types of popular culture media

Many of the same writers offered a litany of benefits other than pure media exposure (e.g., Champoux, 2004; Dalton, 1999; Guy, 2007; Tisdell, 2007; Thompson, 2007). The most employed type of popular culture media, film, has received great support from scholars and practitioners for its ability to facilitate discussion, increase participation, encourage critical thinking, support multiple interpretations, and provide student satisfaction (Dalton, 1999; Proctor & Adler, 1991). Tejeda (2009) noted that using films as a pedagogical tool heightened student interest without sacrificing academic rigor, allowed classes to observe and evaluate processes in action, exposed students to a world beyond their own, and offered opportunities for discussion, values clarification and personal assessment. Champoux categorized the uses of film in the following manner: Film as Case; Film as Metaphor; Film as Satire; Film as Symbolism; Film as Meaning; Film as Time. Film as Case can act as a substitute for a written case study, while Film as Metaphor offers a visual alternative for concept association. The use of Film as Satire allows the instructor to inject some levity into the discussion. Film as Symbolism
presents a unique way to communicate theories and concepts. Champoux defines Film as Meaning as an alternative way to give meaning to a notion or thought that would be more effective on the scream than the written work, whereas Film as Time can offer the student a chance to “view” history (2001). Champoux (2005) also reviewed the attributes of animated films. He wrote:

The visualization of animation can create strong, lasting images of concepts. Animation offers alternatives to live-action scenes that can increase the variety that one brings to the classroom. Strong caricature in animated film can powerfully show concepts. Exaggeration in animated film helps link abstract concepts to visual symbols. Borrowing from (movie critic) Roger Ebert’s observations, animation can help us link concepts directly to the minds of our students. (p. 50)

Closely related to animated film is the genre of comic books. Gerde and Foster (2008) expound upon several benefits in using comic strips and books in higher education, including preference by students over textbook problems and scenarios, being able to provide a hard-copy medium that students can read at their own rate, and improved vocabulary and comprehension for students of lower reading ability. Thompson (2007) corroborated this latter benefit, explaining that even though a student may not have the ability to read text or compute numbers very well, he or she has the ability to learn informally through various media venues. Gerde and Foster concluded by stating that “comic books can help us to capture students’ attention, exercise the moral imagination, and improve our understanding of the roles and impacts of business” (2008, p. 246).

In addition to the media-specific writings, other authors in the literature base offered anecdotal opinions relating to the importance of using popular culture as a pedagogical tool, Guy (2007) stated “that classroom energy levels rise substantially as students engage with the examples and discuss various perspectives regarding popular
culture and its implications” (p.19). This is especially important in a community college setting. From her own experience as a community college professor, Bartholome (2006) concurred that,

> Because of the extreme diversity found in most two-year establishments, one way to get everyone on the same page is to use the culture of everyday things…these students probably have little in common except for their immersion in pop culture. Even when you work with it intensely and rigorously, pop culture is, by its very nature, fun. If you were a two-year college student carrying 15 or more credit hours and working 25-45 hours a week at a minimum wage job, would it kill you to have a little fun? Pop culture perpetually promotes discussion, participation, imagination, and evaluation. (p. 9)

**Limitations in using pop culture media**

Although the literature is scant on pedagogical scholars who find negativity with mass-produced popular themes in the form of various media, Giroux himself warned, on a macro level, that companies like Disney and Benetton have the popularity and resources to, respectfully, “rewrite narrative of national identity and global expansion …and provide a pedagogical vehicle through who Benetton addresses the everyday concerns of youth while at the same time blurring the lines between popular cultures of resistance and the culture of commerce and commercialization” (1994, p.15). On a micro or practitioner’s level, there are several limitations inherent with this teaching method. At the top of the list are potential legal issues with using copyright-protected work (e.g., Champoux, 1999; Kane, 1999; Sexton, 2006). This fear has been mitigated by what are known as “fair-use” exceptions. As Sexton (2006) clarifies:

> An educational exemption applies if (1) the teacher or a student is shown the movie; (2) the viewing is taking place in the context of a face-to-face educational curriculum; (3) the viewing is taking place in a standard place of instruction, like a classroom; and (4) the viewing is of a legally acquired copy of the movie (that is, purchased, rented, or checked out from a library but not illegally copied. (p.413)
This fair use exemption also applies to television shows, music, and radio broadcasts. Weinrauch (2005) strongly suggested to his students to pick songs from a purchased or borrowed CD or digitally downloaded performance.

Another limitation, especially with the use of film and television, is time. For professors who have class periods that are less than two hours in duration, showing a feature length movie let alone having time for a preliminary and post-broadcast discussion is physically impossible. Some instructors make the films available for at-home viewing, or arrange for the students to subscribe to a movie rental service (e.g., Netflix, Blockbuster, etc.) so they may access them with minimal inconvenience (e.g., Bluestone, 2000; Champoux, 1999, 2000, 2006). When it is not practical to show entire feature films, many instructors (e.g., Bluestone, 2000; Champoux, 1999, 2000; Sexton, 2006) have chosen to insert clips of television and movies to maintain student interest and offer content at the same time (Champoux, 2006) advocated for the use of film scenes. Video clips provide visual stimuli to reinforce valuable concepts and ideas. Because information is often stored in visual form, pictures and movie clips may be very important in helping students retain important ideas and retrieve them from their long-term memory. In teaching economic principles courses, Sexton (2006) used three to five minute clips that spoke to over 30 economic concepts. Students are required to write an essay explicating the economic message found in the video short.

Perhaps one of the most difficult challenges has nothing to do with technical or legal issues, but rather one of acceptance – from both the student and instructor. As the primary function of films, songs, and television shows is to entertain, some students may not be able to make the mental shift from a medium that amuses to a medium that
facilitates learning. Some will not watch the broadcast film critically enough, especially if they accept a character’s view or experience without question. Other students may be offended or disturbed about the content of the broadcast (e.g., Champoux, 2005; Villalba & Redmond, 2008). And some may wish to spend too much time discussion the performance itself and not the learning objective (Cullen, 2005; Weinrauch, 2005). These issues can be rectified by having the instructor first view the film beforehand, make edits or skip inappropriate parts, and warn the class about what they are about to view or listen to. In addition, providing written questions and learning objectives along with discussion about expectations for the event will help reduce off-topic discourse.

As for the instructors, some of their colleagues have argued that showing a movie is not really teaching, and that letting the film deliver the material is a lazy way to conduct a class. They also do not embrace the dual role of performer and instructor (e.g., Fink & Foote, 2007; Sexton, 2006; Sprau, 2001). As Sarason et al (2004) explained:

University faculty is increasingly called on to be less of a sage on the stage and more a guide on the side…. There are greater demands for university faculty to not only profess a knowledge base but to also effectively facilitate learning. The dominant metaphor has moved the educator from being portrayed as pouring knowledge from the jug to the mug (student) to an application of the Chinese story that suggests that in education, the emphasis should be on teaching fishing rather than giving fish away. (p. 509)

Sexton (2006) also warned about those instructors who refuse to change their pedagogical style. The cost of using conventional, didactic methods rather than more contemporary outcome-based methods may be significant in the long run as students choose to move away from courses like economics and into the more interesting classes. And according to McKeachie (2006), students will learn what they want to learn and will have great difficulty in learning material in which they are not interested.
Empirical studies

The next segment contains the literature of scholars whose contributions are based on observable classroom experiences using forms of popular culture to enhance student learning. Emphasis is placed on those studies that: 1) dealt with the study of business in higher education; 2) offered methodologies that include discrete student samples and time period durations; and 3) generated some kind of quantifiable findings on the effects of a Treatment other than instructors’ anecdotes or opinions. Admittedly, there is a scarcity of these types of studies that focus on the impact of using popular culture as a teaching technique on student attitudes and performance in a college business course. Point in fact, no study could be found that used popular culture as an instructional tool in a business education setting that measured a change in student knowledge. Therefore, one of the few research papers from the field of interpersonal communication that provided comprehensive, quantifiable data in this area will be included.

The first study was authored by Berger and Pratt (1998), and proposed to explore the instructional importance of using two full-length movies to help students learn how to deal with ethical issues in the workplace. The two questions that drove their study were: 1) Can films encourage students to make the “metaphoric leap” and apply the film messages to class readings and discussions on ethical problems; and 2) Can students apply the films’ lessons to their college majors and to their future business decisions. A group of 91 juniors and seniors studying business communication ethics in two Midwestern universities read a required textbook chapter on ethics, viewed in class two of David Mamet’s films, *Glengarry Glen Ross* and *House of Games*, and evaluated the two films in focused groups shortly thereafter. The students’ discussions were directed by
a series of questions pertaining to the lessons learned from the film, the films’ applicability to business communication function, and characters in the film that symbolized real-world professionals in the business communication sector (Berger and Pratt, 1998).

Although the researchers did not include any details about the grading process, data collection, or outcome assessment, Berger and Pratt (1998) did suggest several implications for the use of these films in teaching business-communication ethics. They believed that both films could be used as an accurate metaphor for the real-world of business communication, especially public relations. Students “overwhelmingly admired both films…and felt they typified reality” (p. 1821). They also inferred from the students’ responses that the characters in the movie were believable, and could relate their behaviors in the movie to those of actual practitioners. In addition, Berger and Pratt suggested that films, in general, make the discipline of ethics and ethical inquiry less abstract and better prepare students to understand workplace ethics.

The second empirical research report involved 15 volunteer students out of the 25 who signed up to take an applied science management undergraduate survey course (Burton, 2008). Three of the volunteers were male and 12 were female. The purpose of this study was to “observe if students’ understanding of ethics and leadership will change after watching a superhero film” (p.1). Each of the twelve students had to write a 2-3 page paper on leader characteristics, watch the first installment of the X-Men movie series, and then write a second paper, assuming the role of a fictitious superhero, and describe how they would use their superpowers in order to exude good leadership. After
submitting their final papers, the volunteer students took part in an on-line debriefing session.

As this was a volunteer study, Burton (2008) did not assign students any grades, nor did she indicate if the students received any incentive (e.g., extra credit, gift, food) to participate. The author did provide an extensive qualitative analysis of both pre- and post-test essays, and a script of the post-study debriefing chat session. The pre-test papers were “heavily constrained by textbook… many quotations…and the ethical vs. legal debate not fleshed out thoroughly” (p. 14). The post-test paper, on the other hand, “showed their tacit understanding that there are multiple approaches to upholding ethical principles. Students’ understanding on this point was not as evident in the pre-test papers” (p. 14). In addition, comments from the chat session seemed to indicate that the students enjoyed the exercise. Burton admitted that the findings were not generalizable and that a larger sample and better distribution of gender and perhaps another discipline could form future research (Burton, 2008).

The final business study was the only one to incorporate music in the lesson plans. Weinrauch (2005) stated the purpose of this thesis was to describe how he used popular musical lyrics as metaphors for helping students better understand and comprehend marketing concepts. This study involved one class of 20 students in an undergraduate class and covered two semesters. Students were to listen to songs played during PowerPoint presentations, take part in a directed discussion about the potential meanings of those songs in a marketing context, pick their own songs and write a short paper on the application to marketing concepts, then pick more songs, write a paper, and give an oral presentation of their interpretation.
Weinrauch (2005) admitted that grading of these assignments were “very liberal, and everyone did well” (p. 118). This was done to promote creativity and evade any student concerns of subjective evaluation. The author did indicate that some students who did average “wrote a commendable paper” (p. 115), while others who normally do well only produced mediocre work. He did not test for reasons to support this disparity, but speculated that the improvement quality could have been the innovative teaching approach, and the decrease in quality a function of the students knowing that this assignment was a minor part of their final grade. This study did not include a formal survey, although the researcher had the class provide written comments that were summarized and classified. According to Weinrauch, positive comments outnumbered negative comments three to one (2008).

As noted earlier, there were no studies found that measured changes in business student knowledge as a result of being exposed to a pedagogy laced with popular culture, and just a few non-business studies. One such work was authored by Baker and Lawrence (1994). The purpose of their research was to determine if interpersonal communication students exposed to full-length feature films, film clips, and television shows would perform better on objective tests, as well as on pretests and posttests dealing with interpersonal concepts and communication apprehension. In this particular study, the researchers described how they created a five-week accelerated course in lieu of the normal 15-week semester course to accommodate students involved in an overseas educational program. There were 45 students in the class representing several major fields of study. As part of the course, the students took two pretests and posttests of the following instruments: the Personal Report of Communication Apprehension (PRCA-24)
and the Interpersonal Communication Survey I (ICS). They attended five hour instead of the normal one hour class sessions, read the assigned literature, and completed the required homework. The students were also shown seven full-length movies, six movie clips, and two television programs during the course. Lastly, the participants sat for two objective examinations that were designed to test for comprehension.

Baker and Lawrence (1994) measured several outcomes at the end of the course. They discovered that the PRCA-24 and especially the ICS scores increased for the majority of the students involved in the study. Results from both objective tests indicated that these students’ scores were about the same as recent 15-week-long fall and six-week-long summer sessions that also attracted self-driven students in an intense environment similar to the five-week hybrid. However, when comparing grade point averages (GPA), the recent summer session cohort achieved a 2.74 versus the study group’s 3.24. In writing the article, the authors pointed out that they were not aiming for generalizability of results. They simply wanted to see if using popular culture media would make a difference. They also recognized that they had the advantage of longer class periods than their normal fall and spring offering, enabling them to show the full-length feature and have ample time for discussion. They recognized that, because of differences in the number of class sessions, they had to use different assignments and number of tests. Baker and Lawrence also admitted that quick grading of assignments led to inflated scores and therefore a potential rise in the study group’s GPA. In addition, they commented on their lack of statistical rigor that would be needed to “either support or reject the assumption that using media enhances learning in a communication classroom”
They also suggested that future research should compare two classes – one with Treatment and one without.

**Popular Culture**

The use of elements of popular culture as an instructional design instrument and their impact upon business students’ course attitude, satisfaction, and performance is central to this dissertation. In this section the literature pertaining to the definition and history of popular culture, and the efforts to give it relevance and respect in academia will be investigated.

**Definition and history**

The phrase “popular culture”, like many of those emitted in higher education, has been subjected to various definitions and interpretations. Edgerton et al (2005) offered an explanation that takes its roots back over 100 years ago. In an etymology of the expression by post-WWII scholar Raymond Williams’ influential book *Keywords*, they note that Williams (as cited in Edgerton et al, 2005) suggested that a certain aggression toward both terms, separately, began in the late nineteenth and twentieth centuries. Regarding the word culture, he states “the hostility has been connected with uses involving claims to superior knowledge, refinement and distinctions between „high‟ culture and popular art and entertainment” (p.10). Similarly, Raymond discussed how “popular” denoted a source of political manipulation as in “courting the favour of the people by under practices.” Though it gradually turned to a meaning of those things decided upon or made by “the people” for themselves, it has continued to maintain the pejorative sense in its association with inferior kinds of work, or popular press as compared to quality press or journalism (as cited in Edgerton et al, 2005, p. 10). In a
similar vein, German scholars Adorno and Horkheimer, (Dalton, 1999) while visiting the United States in the 1930s on behalf of their Institute for Social Research (e.g., the Frankfurt Studies), adopted the term “culture industry” as opposed to popular culture “because they wanted to resist notion that products of mass culture emanated from the masses or the people. They saw the culture industry as involving administered culture, imposed from above, as an instrument of indoctrination and social control” (p. 6).

Closer to the present, one of the pioneers of the movement to make popular culture a serious field of study and scholarship was Ray Browne (Browne & Ambrosetti, 1972), who in the following quote seems to lament the struggle academics and practitioners had with defining this expression:

Popular Culture is an indistinct term whose edges blur into imprecision. Scarcely any two commentators who try to define it agree in all aspects of what popular culture really is. Most critics, in fact, do not attempt to define it; instead, after distinguishing between it and the mass media, and between it and “high” culture, most assume that everybody knows that whatever is widely disseminated and experiences is popular culture...(to some) Popular culture is really what people do when they are not working. (p.3)

In his seminal book Disturbing Pleasures, Giroux (1994) seemed to view popular culture as a vehicle for higher learning:

Though I do not wish to romanticize popular culture, it is precisely in its diverse spaces and spheres that most of the education that matters today is taking place on a global scale. Electronic media, that vastly proliferating network of images that inscribe themselves on us every day, and the hybridized sounds of new technologies, cultures, and ways of life have drastically altered how identities are shaped, desires constructed, and dreams realized. (p. x)

Both Giroux and Simon (1988) appeared to agree with findings, but hinting at the lack of respect popular culture received in academia. They stated:

In spite of the flourishing of cultural studies in the last decade, the dominant discourse still defines popular cultures as whatever remains when high culture is subtracted from the overall totality of cultural practices. It is seen as the trivial and the insignificant of everyday life, and usually it is a form of popular taste.
deemed unworthy of either academic legitimation or high social affirmation (p. 11).

Another pioneer for the serious study of popular culture, John Cawelti (1972), is just as candid in trying to provide clarity in this matter, stating “It would be nice to begin my discussion with a succinct definition of popular culture, but at this early stage of the field’s development that is clearly impossible if not stultifying” (p. 24). Rather, he characterized popular culture by, at that time, three emerging trends: 1) popular culture studies involve a significant expansion of the range of cultural products and behavior given serious academic attention; 2) methodologically, students in popular culture stir up the problem of the relationship between the humanities and the social sciences in a new way; 3) sense of the changing shape of our own contemporary culture (1972). Berger (1972), on the other hand, offered a somewhat derogatory and concise expression, stating “As far as I’m concerned (the definition of popular culture) it is everything that is not high or unpopular culture, but others may not wish to be so latitudinarian” (p. 75).

In his book entitled *Popular Culture Studies Across the Curriculum*, Browne (2005) provided the following comprehensive and reflective exclamation of popular culture:

The definition I have been advocating for 35 years still holds true, as the paraphrase of one version indicates: By the term popular culture, despite many scholars’ and lay people’s efforts to divide and restrict it, we generally mean all aspects of the society we inherit: the way of life we inherit, practice, and pass on to our descendants; what we do while we are awake and how we do it, the dreams we dream while asleep. It is the world around us: the mass media, the small groups, the individual controls and directors of our life, the entertainments, diversions, heroes, icons, rituals, psychology, religion, irreligion – the total life picture. It is disseminated by the mass media, the small group community, individuals, all means of communication. (p. 11)
Two studies, one informal and one formal, seem to support Browne’s all-inclusive definition and helped predict the growing attractiveness that popular culture would have as a separate field of scholarship and as a pedagogical tool. The first study was a casual survey conducted by Cawelti in 1972. He reported that of 36 education institutions he contacted, 56% of them offered specific courses in popular culture (exclusive of vocational or professional courses in TV, film, journalism, etc.); another 26% reported that extensive use of popular materials was made in courses in English, history, music and other subjects, and only 18% indicated that no attention was given to popular culture (Cawelti, 1972). Roughly a decade later, Gordon and Nachbar (1980), solicited and received information from 260 four-year schools, discovering that: 1) there were 1993 PC courses of all kinds among 260 four-year schools; 2) popular culture materials were used mostly in the teaching of the teaching of humanities, speech and communication, and social science courses; and 3) over 90% of the courses were taught in the English, history, communications, and journalism departments. Today, popular culture has found its way into interpersonal and group communication, organizational communication, mass communication, rhetoric, anthropology, history, sociology, philosophy, religion, geography, women’s studies, ethnic studies, social sciences, and sports.

Organization

Any literature review about the growth of popular culture as serious scholarship would be incomplete without a synopsis of the work of the late Ray Broadus Browne, who passed away in October of 2009. The following passages are taken from a 2002 interview (see “Conversations with scholar of American popular culture”, 2002) sponsored by Americana: The Journal of American Pop Culture. Browne, along with
fellow academicians Russel Nye, Marshall Fishwick, John Cawelti, and Carl Bode, was instrumental in forming the first true society of professionals dedicated to the study and appreciation of popular culture studies and popular culture as pedagogy. Led by Browne, he and his fellow professors proposed the formation of the Popular Culture Association at the American Studies Association conference in Kansas City in 1967, and shortly upon arriving at Bowling Green State University (BGSU) from Purdue, introduced the Journal of Popular Culture:

This was done out of a concern over the “wide rift that lay between the American Studies Association and the American Folklore Society – I organized two conferences at Purdue in 1965 and 1966 on the role that the study of everyday culture (pop culture) could play in bringing the two disciplines together...The Popular Culture Association still had negative connotations. Academically, the word popular has generally meant mass, a political term, and entertainment to scholars who take scholarship and knowledge solemnly – therefore, the culture of most of us it is not to be taken seriously. (p.4)

(Note: In Against Academia, Browne stated the American Studies Association conference was in 1969 (p. 21); Browne also indicated in Popular culture studies across the curriculum that the 1969 (p.18)).

Browne had a turbulent beginning at BGSU, especially with his fellow faculty in the English department. He began inserting themes of popular culture in his folklore classes, which resulted in, reprimands and scorn from the department. As he put it:

Finally, conditions in the English Department became so uncomfortable for all that they told the provost I could not stay in English any longer. He, however, told them that they had to keep me since “nobody else on campus would take me. So I had little recourse but to found my own department – with one colleague.  (p. 6)

While in this role at Bowling Green, he also founded the Journal of American Culture as a way for “those professors who for one reason or another who had not wanted to be
caught dirtied by studying popular culture could study American culture and hold their heads up and publish in the Journal” (p. 7).

In reflecting on the growth of the academic journals and associations with whom he is enthusiastically attached, Browne (2005) recalled that the attendance for the first PCA held at Michigan State University in April 1971 was 150. Since then, thousands of participants have attended regional, national, and international popular culture conferences and symposiums. In the global front, Browne’s first effort was in England in 1978 with over 100 in attendance. In trying to establish an international popular culture in India, he worked with a professor who received his Ph.D. from the United States. The Indian instructor stated at that time that:

In a country like India which has some 450 languages and dialects, the cultural interests and means of communication are so disparate that any kind of nationalism is virtually impossible. The only thing the Indians have in common is their popular culture. (p. 22)

And in 1987, Browne coordinated shipment of over one hundred sets of the Journal of Popular Culture at different outposts all over the world. In one of his last books, Popular culture studies across the curriculum: Essay for educators, Browne proclaimed the advances made by the popular culture movement:

- Greater respect for the countless aspects, of society, both large and small;
- Release from academic restraints that insisted that the old canon, though augmented in some ways, should continue to be the sole or main province of interest and research in the humanities;
- Courage to encourage and allow closet interests of scholars to develop;
• Recognition that American popular culture is the major force and export of America today, as it has been for over 200 years, and is therefore the heart of interdisciplinary and international study;

• Graduation to a new way of learning and teaching. With popular culture, each learner is also a teacher and each teacher a learner. All sit at the same table eating the same bread because we believe that active contributions make for active learning. (p.22).

Summary

In this chapter a review of the literature of the following topics was presented: (1) community colleges; (2) students; (3) faculty; (4) pedagogical techniques; and (5) popular culture. The next chapter will review the methodology for conducting this quasi-experimental study.
Chapter 3: Methodology

The purpose of this study was to examine the effects that two distinctly different teaching methods had upon students taking an introductory business course at a large two-year community college in northwest Ohio. Specifically, this study was to determine if there were any differences in learning, retention, attendance, interest, and satisfaction from a group of students exposed to a teaching method incorporating popular culture versus a teaching method not incorporating popular culture. This research will also determine if there are any differences in student course satisfaction of Millennial versus Non-millennial students when both are exposed to a teaching method incorporating popular culture. In this chapter I describe the difference between experimental and quasi-experimental research, the study’s research design, participants, instruments, data gathering, implementation, data management, data analyses, research questions and hypotheses, overview of statistical methods, overview of Rasch, and threats to reliability and validity and mitigation strategies.

Experimental vs. Quasi-experimental Research

The objective of this study was to see what differences can be found from students taking a community college introductory business course when they were exposed to two different types of teaching methods: one that incorporated the use of popular culture and one that did not. These differences included the following: 1) student learning as measured by performance on a series of five multiple-choice questions over lecture and textbook content; 2) student retention as indicated by the number of students completing this course with a “D” grade; 3) student attendance as measured by the
number of class sessions attended; 4) student interest in the discipline of business as determined by responses to a Likert-type questionnaire; 5) student interest in taking additional business courses as determined by responses to the questionnaire; 6) student satisfaction in the course as determined by responses to the questionnaire; 7) satisfaction in the course by student category (i.e., Millennial versus Non-millennial) by responses to the questionnaire.

Such a study would naturally lend itself to the use of randomized experimental research in which the independent or Treatment variable (i.e., the instructional method) is manipulated and administered to a randomly assigned experimental group of students in order to determine the effects on dependent variables (i.e., student knowledge, attendance, satisfaction, etc.). A similar group of randomly assigned students would not be given the modified instructional method, enabling the research to ascertain whether the Treatment had an effect upon the dependent variable, or whether one Treatment is more effective than another (Fraenkel & Wallen, 2000). Random assignment attempts to achieve comparability by equating the average unit within each Treatment Group. Therefore, selection, selection-maturation, regression and similar participant-group traits are equal between the experimental groups. According to Cook and Campbell (1979), using randomized experimental research provides a better means of “ruling out most threats to internal validity and statistical conclusion validity (and therefore)…fewer and less plausible assumptions about alternatives need to be made” (p. 384), than other research methods such as quasi-experiment and non-experiment. They make causal inference easier.
Despite the advantages of using a randomized experiment approach, I did not use this type of research design because the underlying assumption of this method, random assignment of participants, was impossible to achieve. There were several reasons for this. First, I was not able to have the first pick of the business course sections in the fall semester due to my level of seniority at the institution. There were two other senior instructors who taught one to three of the more than 30 sections offered that semester, and I had to wait until they had made their selections. Second, because the time of day had a direct influence on the type of student enrolled in that section (i.e., classes scheduled between 8:00 a.m. and 3:00 p.m. consist primarily of Millennial students, while classes from 3:00 p.m. on into the evening are made up of Non-millennial students), there was a chance that I could randomly choose more of one type of student than the other. This was important since I attempted to determine if there was a difference in multiple attributes between these two generations when both were exposed to a business course taught incorporating popular culture. Third, because all of the classes do not completely fill up, I might randomly choose a section that only has 10 students versus one that I personally choose that is full (i.e. 22-30 students). The more students I could include in my study, the better I would be able to generalize the findings of the research (Fraenkel & Wallen, 2000). And fourth, as these students were part of fixed or “intact” groups, and signed up for these days and times for personal reasons, I could not arbitrarily nor realistically pull them out of their chosen sections to be placed in a Treatment or Control Group of my choice.

Given these constraints and limitations, the next best research design available for this type of study was quasi-experimental. This term describes experiments that have
Treatments, outcome measures, and Treatment and Control Groups, but do not use random assignment of participants to those groups in order to make inferences about Treatment-caused change. Because the groups are not assigned using a randomized approach, they are said to be “non-equivalent” groups and require the use of special research methodologies. Fraenkel and Wallen (2000) clarify this further describing a quasi-experimental design as a form of experimental research used with naturally assembled, or “intact” groups. Quasi-experimental research evolved from the transition of psychology and education research moving from the laboratory to field settings, and the “power to randomize was either seriously curtailed or altogether absent” (Wolf, 1997, p. 420). Of course, as was stated earlier, non-randomized samples used in research lead to inconsistent interpretations, non-generalizable findings, and additional threats to validity (Cook & Campbell, 1979). However, with consistent implementation procedures, rigorous statistical analyses, and tactics to reduce the reliability and validity threats, quasi-experiments can be interpreted uniformly and generalizable across many populations (Cook & Campbell, 1979). These assumptions will be explained in the next section, while validity/reliability threats and mitigation strategies will be discussed completely in the last section of the chapter.
**Quasi-experimental group designs**

This study incorporated the following two quasi-experimental designs:

- **Intact-group Pretest-Posttest Design for Survey** ($X_1$ is Treatment; $X_2$ is Control Group)

  - Pre-Delivery Survey
  - $X_1$
  - Post-Delivery Survey

  And

- **Intact-group Time-Series Design for MC-Tests** ($X_1$ is Treatment; $X_2$ is Control Group)

  - MC-test 1
  - $X_1$
  - MC-test 2
  - MC-test 3
  - MC-test 4
  - MC-test 5

  - MC-test 1
  - $X_2$
  - MC-test 2
  - MC-test 3
  - MC-test 4
  - MC-test 5

In the first design, having the Treatment Group receive a pre- and post-semester questionnaire increases the probability of inferring that any kind of change is related to the Treatment. In the second design, having a series of tests after implementing a Treatment increases the probability of inferring that the test scores after the Treatment would be different from those before it. And in both designs, there is a Treatment Group and a Control Group as opposed to a one-group Treatment design. Having a Treatment and Control Group design increases the probability of being able to consider the relevant
threats and to measure them individually (Cook & Campbell, 1979). I will now describe the participants that made up both the Treatment and Control Groups.

Participants

The study took place at a large two-year institution of higher education in northwest Ohio. The participants were students who signed up to take the Introduction to Business (BUS 101) course in the Fall 2010 semester that began August 23 and ended December 11 - approximately 15 weeks in duration. Six sections were chosen from the more than 30 on-premise classes normally offered at the campus’s main branch during the fall 2010 semester, with each section consisting of 24 – 30 students depending on the size of the classroom. Table 1 describes the sections, the days/time of the session, the number of students completing the course, the gender and generational mix in each class section. As previously stated, the demographic properties of each class are greatly related to the time of the day that class is offered. Therefore, in order to obtain a rich mix of students and attempt to create similar Treatment and Control Groups, I selected two sections in the morning between 8:00 a.m. and 12:00 noon, two sections in the mid-afternoon between 12:00 noon and 3:00 p.m., and two sections in the late afternoon to early evening between 3:00 p.m. and 7:00 p.m. These classes ran twice per week, with each class session lasting one hour and 15 minutes.
Table 1

**BUS 101 class sections and participants**

<table>
<thead>
<tr>
<th>Section</th>
<th>Days/Time</th>
<th>Completed</th>
<th>Course(^a)</th>
<th>Male</th>
<th>Female</th>
<th>Millennial</th>
<th>Non-millennial</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Control Group ((n = 69))</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>008</td>
<td>M &amp; W 9:30 – 10:45 a.m.</td>
<td>26(^b)</td>
<td>17</td>
<td>9</td>
<td>23</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>028</td>
<td>M &amp; W 2:00 – 3:15 p.m.</td>
<td>25</td>
<td>17</td>
<td>8</td>
<td>21</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>054</td>
<td>M &amp; W 5:15 – 6:30 p.m.</td>
<td>18(^b)</td>
<td>11</td>
<td>7</td>
<td>17</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Treatment Group ((n = 74))</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>010</td>
<td>T &amp; R 11:00 a.m. – 12:15 p.m.</td>
<td>28</td>
<td>16</td>
<td>12</td>
<td>22</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>040</td>
<td>T &amp; R 2:00 – 3:15 p.m.</td>
<td>23</td>
<td>18</td>
<td>5</td>
<td>22</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>062</td>
<td>T &amp; R 5:15 – 6:30 p.m.</td>
<td>23</td>
<td>13</td>
<td>10</td>
<td>19</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Total</td>
<td>69</td>
<td>45</td>
<td>24</td>
<td>61</td>
</tr>
</tbody>
</table>

\(^a\)Number of students who received a grade. \(^b\)One student from each of these sections withdrew before the withdrawal deadline and did not complete the course.

*Note.* Students assigned themselves to a particular section (i.e., intact groupings). The decision to choose MW as the Control Group and TR as the Treatment Group was based on a coin-flip.
Instrumentation and Data Gathering

Likert Survey

The survey instrument and a letter of consent were submitted to the Human Subjects Research & Review Committee (HSRRC). The Review Committee decided that the nature of my research project did not warrant a subject letter of consent, and granted a waiver from the normal Human Subjects Review process. Instead of distributing a letter to the students, I simply needed to inform them of the subject of my research, and allow them to opt out of completing the questionnaire. However, as an incentive for completing the survey I offered them a chance to win two $50 gift cards, with one participant’s name drawn at the beginning of the semester after conducting the Pre-Delivery Survey, and the other name drawn after conducting the Post-Delivery Survey. The survey instrument was a Likert scale questionnaire consisting of eight items (see Appendix A), whose purpose was to obtain attitudinal data regarding two types of teaching methods. Wolf (1997) defines a questionnaire as “a self-report instrument used for gathering information about variables of interest to an investigator.” (p. 422). A questionnaire’s effectiveness is predicated on three criteria: 1) the respondent can read and understand the questions or items; 2) the respondent possesses the information to answer the questions or items; and 3) the respondent is willing to answer the question or items honestly (Wolf, 1997). While quite certain that the groups can meet the first two assumptions, trusting the participant to answer the questionnaire truthfully was one of my aforementioned limitations (See Chapter 1). The introductory announcement about the project and gift card incentive helped support assumption three. The questionnaire asked for the student’s Owens College Student ID (OCID) number and whether they were born
before or after 1979. As a post-test, the same survey was distributed at the end of the semester to the same students in each section.

*Multiple choice tests*

During the semester, five tests were given to the BUS 101 students (see Appendix B). The first four tests contained 75 multiple choice (MC) questions while the fifth test contained 50 MC questions. They were administered after four to five in-class sessions that covered material from three-to-four sequential textbook chapters. All of the MC questions for each exam tested the student’s knowledge of the BUS 101 textbook terms, concepts, and applications. The test questions were sequenced in the order of the chapters from which they were taken, with the number of questions per chapter varying depending on that chapter’s intending learning objectives.

Students were not allowed to use their textbook, notes, or other students to answer the MC questions. They were asked to mark their answers with a #2 pencil on a college-supplied computer score sheet. Test takers were given 75 minutes to answer all of the questions. All five tests were given in their normal classroom and class time on a designated day, and with no make-ups allowed. The only exception to this testing procedure was for one student that had a qualifying disability under the Americans with Disabilities Act. This student was allowed to take the exam in the college testing center and provided twice the allotted time for the test. The completed MC test score sheets were then processed by the college’s scoring department. They provided me with the standard exam diagnostics, including student’s name, number of test questions, number of correctly answered questions, etc.
Multiple choice or objective tests are defined as “objective methods of observation are those in which any observer who follows the prescribed rules will assign the same values or categories to the events being observed as would another observer” (Choppin, 1997, p.771). These differ, of course, from non-objective methods of observation one might find in essay tests where great variation exists in both responses produced and responses graded due to the personal judgment of the person(s) taking and scoring these tests. Therefore, these kinds of assessments cannot be regarded as “objective” (Choppin, 1997). Some critics (e.g., Hoffmann, 1997) have noted several disadvantages to using multiple choice tests as a method of predicting student learning performance. MC questions require students to only recognize the correct answer, rather than recall and/or construct it for themselves. However, several studies (e.g., Godshalk, et al, Choppin, 1997, and Purves, 1997) that compared essay tests and multiple choice tests taken by the same student indicated little difference in overall performance. Another criticism of MC tests is that they present students with three to four times as many false answers as correct ones. If distractors are plausible, then students might “learn” incorrect information during the test. There has been little research to substantiate this claim. One final objection that deserves merit deals with student guessing, usually the final alternative when reason and logic fail. Because of the possibility of students guessing too many correct answers and the subsequent danger to measurement reliability, this criticism will be addressed more completely in the Threats to Validity and Reliability section later in the chapter.

Despite these criticisms, there are a number of advantages to using multiple choice tests to gauge learning success. Choppin (1997) suggests that MC questions are
effective at determining quickly in what areas of a subject a student may be deficient. Furthermore, an instructor can easily choose either broad or narrow range of questions that will help assess if there is a problem much more easily than using essays and their inherent subjectivity. Compared to other forms, the MC test is certainly one of the more efficient ways of acquiring information about an individual’s knowledge. When using computer tests, MC exams are easy to score by the instructor or an institution’s information technology department. And because of their numerical format, they cater very well to statistical analyses. Lastly, the subject matter from a textbook can be distributed more widely and evenly over a series of MC tests and questions than it can using essay type questions (Choppin, 1997).

**Implementation**

Students from three of the six BUS 101 sections (experimental groups) received the Treatment of being taught with prescribed lesson plans infused with various popular culture media and activities for each of the 19 chapters covered in the textbook. The lesson plans (see Appendix C) included appropriate set up and debriefing procedures for each popular culture event. An example of such an event was three minute clip from a popular TV series showing ineffective human resource performance evaluation techniques. The students were asked questions about the appraiser’s approach, what effect his actions had upon the employee receiving the evaluation and perhaps upon his fellow employees, and what behaviors would need to be modified in order for the appraisal to be more beneficial to everyone. Some popular culture events were woven in the entire lecture for that day (e.g., contemporary comics about the disadvantages of off-shore outsourcing embedded into PowerPoint). Again, debriefing questions included
inquiring about the student’s interpretation of the image and follow-up examples (from both student and instructor) of real-world equivalencies of the comic strip message. In either case, the total time spent on the infusion event lasted from 10 - 15 minutes per class session.

Accordingly, students from the remaining three sections (comparison Control Groups) received equivalent exercises as just described but the activities were entirely void of popular culture media and reference (see Appendix D). For example, with respect to the performance appraisal exercise noted earlier, the Control Group was asked to role play an office scenario involving a supervisor and employee. Another activity for the Control Group involved using a current business event to emphasis the construct, along with appropriate instructions and questions. An entire list of Treatment and Control Group activities and/or events, along with their respective learning objectives and textbook chapters can be found in Appendix E. Finally, students from both groups received the same pre- and post-Likert survey and MC tests described in the Instruments section of this chapter.

Data Management

All data was captured and stored on my laptop computer, with back-up copies of these files place on a flash drive. Both media storage devices were in my possession during off-work hours and secured in my home. Data regarding attendance was collected from my attendance log, while student retention statistics were accessed from the institution’s BLACKBOARD system. The institution’s information technology processing center captured and formatted all MC test results and provided me with the output files for use in the statistical software programs. The information technology
processing center deleted these files according to their normal standard operating procedure. I manually inputted the results of the pre- and post-Likert questionnaire into separate data files. All data was processed through two statistical programs: SPSS (release 18) and Rasch WINSTEPS.

Data analysis

For this study, I incorporated two types of statistical analyses; one for testing the research hypotheses and the other for determining the quality of the instruments. In this section I again list the research questions and corresponding hypotheses of the study. I then describe the statistical methods under consideration that were used for testing the study’s research hypotheses. This will be followed with an overview of the Rasch model, and how it will be used to examine the quality of the two instruments used in this study. I will conclude this section with a comparison of Rasch with classical test theory (CTT).

Research Questions

The primary research question for this study was (1) *Do differences exist relative to student learning when a business course is taught incorporating popular culture versus one taught without incorporating popular culture?* Secondary research questions include: (2) *Do differences exist relative to perceived student comprehension when a business course is taught incorporating popular culture versus one taught without incorporating popular culture?* (3) *Do differences exist relative to student semester retention when a business course is taught incorporating popular culture versus one taught without incorporating popular culture?* (4) *Do differences exist relative to student semester attendance when a business course is taught incorporating popular culture versus one taught without incorporating popular culture?* (5) *Do differences exist..."
relative to student interest in the discipline of business when a business course is taught incorporating popular culture versus one taught without incorporating popular culture? (6) Do differences exist relative to student interest in taking additional business courses when a business course is taught incorporating popular culture versus one taught without incorporating popular culture? (7) Do differences exist relative to student satisfaction when a business course is taught incorporating popular culture versus one taught without incorporating popular culture? (8) Do differences exist relative to student satisfaction between Millennial students and non-Millennial students when both are exposed to a business course taught incorporating popular culture?

Hypotheses

The following are the hypotheses that correspond to the above primary research question and secondary questions:

- **Hypothesis 1**: Students exposed to a business course taught incorporating popular culture will **score higher on multiple-choice tests** than those exposed to one taught without incorporating popular culture.

- **Hypothesis 2**: Students exposed to a business course taught incorporating popular culture will **have higher levels of perceived comprehension of course topics** than those exposed to one taught without incorporating popular culture.

- **Hypothesis 3**: Students exposed to a business course taught incorporating popular culture will **complete the course with a “D” or better in greater numbers during the semester** than those taking one taught without incorporating popular culture.
• Hypothesis 4: Students exposed to a business course taught incorporating popular culture will attend more class sessions during the semester than those exposed to one taught without incorporating popular culture.

• Hypothesis 5: Students exposed to a business course taught incorporating popular culture will have higher levels of interest in the business discipline than those exposed to one taught without incorporating popular culture.

• Hypothesis 6: Students exposed to a business course taught incorporating popular culture will have higher levels of interest in taking additional business courses than those exposed to one taught without incorporating popular culture.

• Hypothesis 7: Students exposed to a business course taught incorporating popular culture will have higher levels of course satisfaction than those exposed to one taught without incorporating popular culture.

• Hypothesis 8: There is no difference in course satisfaction between Millennial students and non-Millennial students when both are exposed to a business course taught incorporating popular culture.

Overview of Hypothesis Testing Statistical Methods

As explained earlier, this study incorporated a quasi-experimental design approach due to the impracticality of randomized selection of participants to the Treatment and non-Treatment Groups. Reichardt (1979) defines this situation as “non-equivalent group designs without controlled selection” (p. 147). Since either of these groups was intact based upon the class section for which they sign up, the challenge then was to distinguish the effect of the teaching method from the effect of the selection
differences. Another difficulty was the inability to determine what type of student was in
what class until the semester began, and the inability to ascertain their level of knowledge
until they had taken one or more exams. In addition, a final challenge was attempting to
manage the bias inherent in these non-equivalent groups.

In order to deal with these conditions and test for significance among the
independent and dependent variables involved in the study, all the while keeping the
analyses straight-forward and simple to interpret, I chose to use the following statistical
testing methods: independent samples \( t \)-tests, chi-square cross tabulations, and dependent
paired samples \( t \)-tests. Independent \( t \)-tests were used to measure differences in the study’s
participant samples on attendance and knowledge (i.e., MC test scores) while chi-square
cross-tabulations were used to measure differences in retention and knowledge (i.e.,
number of correct key questions from the MC tests). Dependent paired samples were
used to measure differences in pre-and post-Likert survey responses: perceived
knowledge, interest in additional business courses, interest in the business major, and
satisfaction. Each of these methods attempt to examine and explain changes in dependent
variables as a result in changes in the independent variables. In this study, the dependent
variables will include test scores, attendance, retention, interest in other business courses,
interest in business as a plan of study, and satisfaction, while the independent variables
will include the type of course instruction and age (i.e. for millennial versus non-
millennial student comparison).

**Overview of Rasch Measurement**

In this study, both primary forms of student measurement, the MC exams and the
pre-post semester survey, will be subjected to the rigor of the Rasch measurement model.
This model is related to the item response theory (IRT), which is based on the assumption that an examinee’s response to an item is a function of the examinee’s trait level and the characteristics of the item (e.g., Fox & Jones, 1998; Linacre, 1996; Wright, 1967; Wright & Stone, 1979). This theory states that the relationship between a person’s ability and an item’s difficulty can be modeled as a probabilistic function:

$$B - D = \log \left( \frac{p}{1-p} \right)$$

Where B is a ratio measure of person ability, D is a ratio calibration of item difficulty, and p is the probability of a correct solution (Wright & Stone, 1979).

When a person’s ability level on a particular construct increases, the probability of passing each particular item also increases. (Fox & Jones, 1998). Because raw scores are ordinal, the following Rasch model transfers these scores into linear measures:

$$P \{X_{vt} = 1 | (B_v, D_1)\} = \frac{\exp (B_v - D_1)}{1 + \exp (B_v - D_1)}$$

Where $B_v$ is person ability and $D_1$ is item difficulty through their difference $(B_v - D_1)$. Wright and Stone (1979) simplify the objectives of this formula in the following passage:

"We hope to measure an item’s difficulty…how far along the variable we can expect correct responses to that item to occur. We assume that it is item difficulties and person abilities that dominate person responses. The probability is > 50% when person ability is greater than item difficulty, that person will have greater success with that item. Also, the probability is >50% that when item difficulty is easier the more likely the person will answer it correctly, and so on."

(p. 11-12)

For this study, I used Rasch to measure the validity, reliability, and usefulness of the persons (students) and items (MC test questions and survey questions) that were part of
this study. The MC questions fall into the category of “dichotomous tests”, where there is one correct answer out of a series of choices (Bond & Fox, 2001). A software program called WINSTEPS flagged misfitting items and students (i.e. those that poorly fit the Rasch model) from each MC test, and those items/students were evaluated and possibly pulled out of the aforementioned statistical analysis. For this study’s questionnaire, item endorsability and person agreeability was examined and, just as for the MC tests, misfitting components were possibly pulled from further statistical analysis (Bond & Fox, 2001).

(Note: As a matter of policy, all of the instruments that will be administered in this study have already been through continuous improvement and modification using Rasch and other methods of measurement and analysis. Therefore, I did not conduct a pilot study prior to the main research).

Overview of Key Rasch Model Assessment statistics

The Rasch program transforms test scores and survey responses into linear measures that estimate person ability and item difficulty. In WINSTEPS, the primary statistics used to assess the instruments are: item difficulty and person ability measured in log-odd units, or logits, infit and outfit (validity), and item and person separation (reliability).

Item Difficulty and Person Ability

Item difficulty is the result of transforming the proportion of persons in a specified sample who answer a MC question correctly, or highly endorse a survey item, into a logarithmic value called a “logit” that is independent of the effects of the sample (i.e. mean and variance), and can be placed on an equal interval scale. Similarly, person
ability is the result of transforming the proportion of correct answers a person obtains on a MC test correctly or highly agrees about on a survey item to the same natural logarithmic latent trait scale used to measure item difficulty (Wright & Stone, 1979). The position of the item on the interval scale represents the location where half of the persons with equivalent skill to the item’s difficulty answered the item (Snyder & Sheehan, 1992).

The above propositions imply that a MC question that is easy to answer will receive more correct answers than those that are more difficult. Regarding a survey question, those questions that are easier to endorse will receive more endorsements than those that are least endorsable. Likewise, persons that are more able will have a greater probability of answering most of the questions to a test or agree with most of the survey questions than a person who has less ability/agreeability. MC questions and survey questions that are more difficult/less endorsable and persons that have more ability/agreeability are reported with positive logits. Easier/more endorsable items and persons with less ability/agreeability are reported with negative logits. In the mapping process, the distribution of items and persons will be centered at a mean difficulty of zero (Fox & Jones, 1998).

\textit{Infit and outfit (validity)}

The primary method for measuring construct validity, (i.e., is the test measuring what it is intended to measure?) is through the use of fit statistics. These values indicate agreement with or exit from the concept of unidimensionality, that is, the focus on one latent trait or dimension at a time (Bond & Fox, 2001). Fit indices signal to the researcher if a person is answering questions in a way that is inconsistent with his
predicted behavior, or if an MC question is being answered in a way that is inconsistent with its predicted difficulty. The mean-square infit value, which stands for “inlier-sensitive fit statistic,” is weighted by the information in the response, and is more sensitive to unexpected behavior affecting responses to items near the person’s measure level. The mean-square outfit value stands for “outlier-sensitive fit statistic” (Linacre, 2009) and is more sensitive to unexpected behavior by persons on items far from the person’s measure level (Linacre, 2009). When the fit indices are near one, the measures are considered to have greater construct validity. Conversely, for this study and its initial sample size of 141 participants, any values outside the interval 0.7 and 1.3 were cause for further investigation of the person and/or item. At the extremes of this range, these fit index values would indicate 30% less or more variation in the observed response pattern that was modeled, respectively (Bond & Fox, 2001).

Item and person separation (reliability)

Reliability refers to the consistency of measurement (Fraenkel & Wallen, 2000). In other words, how replicable is the instrument that is being used to measure, in the case of this study, student knowledge and attitudes about inclusion of popular culture events into the lesson plan? Normally, a calculation of the KR-20 or Cronbach’s Alpha coefficient is incorporated to estimate internal consistent reliability (Note: please see below for further elaboration of comparisons of reliability with CTT). To indicate the replicability of person placement across other items measuring the same construct, Rasch uses “person separation reliability” (Linacre, 2009). Similar to Cronbach’s Alpha, acceptable values for this measurement are anything higher than .80. However, a more useful index called the person separation index is often employed. Unlike the person
separation reliability, the person separation index is not bound by 0 and 1, and may prove more useful for comparing reliability of scores across several analyses (Bond & Fox, 2001). Item separation reliability is computed in the same way, and describes the ability to define a distinct ordering of items along the measured variable and the replicability of item placement with the ordering across other samples. (Fox & Jones, 1998)

Comparisons to Classical Test Theory

True score or classical test theory (CTT) is an item measurement analysis in which the raw test scores or survey response scores are treated as additive numbers. Although many of the processes and means such as factor analysis and correlation that are imbedded in CTT are considered necessary, they may not be enough to fully define variable behavior (Gable, Ludlow, & Wolf, 1990). In CTT, the following primary assumptions exist: 1) linear independence; 2) the observed score has two components: the true score and the error score; and 3) the difficulty of an item is defined as the proportion of people passing the item (Keats, as cited in Keeves, 1997). I will address each of these assumptions in turn as they compare and contrast with the principle features of the Rasch measurement model.

Linear independence

The first assumption of linear independence, by definition, implies that one cannot compare the value of objects, persons, scores, etc. on a single continuum. Wright and Stone (1979) stated that “Tests are not linear in the measures they imply and for which they are used. In the statistical use of test scores, floor and ceiling effects are occasionally recognized, but they are almost never adjusted for” (p. 2). As was indicated in the opening to this section, Rasch transforms the test scores into measures which
approximate linearity in order to study growth or compare groups. Although test scores usually estimate the order of persons’ abilities rather well, they never estimate the spacing satisfactorily. By using logits to transform the ordinal values from a test, the resulting Rasch item difficulties are not only on an equal interval scale but they are also freed of the observed ability mean and variance of the calibrating sample (Wright & Stone, 1979).

Unidimensionality

Another supposition of this model that was mentioned earlier is that both items and persons must fit a unidimensional model and behave in a consistent way across different samples. In this context, the emphasis on one attribute at a time is defined as “unidimensionality.” The Rasch model measures the degree to which other abilities, or attributes, are indicated in the students’ responses and therefore do not fit a perfect “unidimensional line” (Bond & Fox, 2001). This line is created by the transformation of ordinal responses, such as to a test or survey, into a logarithmic scale upon which the mathematical units for person ability and item difficulty are called “logits.” A person’s ability in logits is their natural log odds for succeeding on items of the kind chosen to define the “zero” point on the scale. An item’s difficulty in logits is its natural log odds for eliciting failure from persons with “zero” ability (Wright & Stone, 1979).

Comparisons of reliability measurement

Although this was addressed earlier, a few additional notes are relevant to the comparison between Rasch and CTT. The second assumption on CTT implicates reliability of the instrument. By definition, a person’s true score would approach the average score if a person took a test an infinite amount of times. That would imply a mean random error of zero. Since true scores are not observable, estimating internal
consistency reliability within CTT calls for calculating KR-20 or Cronbach’s alpha. However, unlike classical psychometric theory in which one standard error of measure is estimated for the entire sample, the Rasch model provides standard error estimates for each person and each item. The comparative measure to the Cronbach’s alpha is called the person separation reliability. This refers to the ability to differentiate persons on the measured variable or indicates the replicability of person placement across other items measuring the same construct. Item separation is also measured. It is described as the ability to define a distinct hierarchy of items along the measured variable and the replicability of item placement within the hierarchy across other samples (Fox & Jones, 1998). Using the Rasch model will generate similar ability estimates for any individual or group. The model will also generate similar item difficulty from a specified population (Snyder & Sheehan, 1992).

*Specific objectivity*

The third assumption on CTT implies that item difficulty is a function of the distribution of the abilities of the person who responded to the item. The same can be said for a person’s endorsability on a survey question. With CTT, item endorsability and person agreeability are intertwined because: (a) item endorsability is defined as the percentage of agree responses to an item for a give sample; and (b) person agreeability is defined as the percentage of items with which the person agreed. In both situations, bias is inherent in the sample from which the tests and/or surveys are administered (Fox & Jones, 1998). The Rasch model eliminates item and test bias because it applies what Rasch (1961) refers to as *specific objectivity*, or the measurement of a person’s trait, as
independent of the set of items used to measure that trait and the item calibration as independent of the set of people who take the test.

**Item quality**

In CTT, the statistic that determines the how well each item distinguishes between persons of high and low ability is called the point-biserial correlation. It is the correlation between the sampled persons’ responses to an item and their entire test result (Wright & Stone, 1979). This value is equivalent to Rasch fit statistics in that it attempts to discern whether an item is measuring a different construct. However, the Rasch mean square residual is not as influenced by sample group’s level of ability as is the point-serial correlation. Therefore, while a Rasch misfit value may indicate that an item does not measure a particular construct, the point-biseral correlation value may imply elimination of that item entirely from the test bank or questionnaire – despite the possibility that the item is within statistical confidence limits (Fox & Jones, 1998)

**Threats to Reliability and Validity**

The following is a breakdown of threats to reliability and validity that may be encountered in this study, their estimated threat level (HIGH, MODERATE, LOW) (taken from Fraenkel & Wallen 2000), and tactics to help mitigate the potential risks.

**Internal consistent reliability**

There were several ways that provided consistency in the Treatment and instrumentation used in this study. The same lesson plans and teaching approaches therein were implemented by one instructor to the respective Treatment and non-Treatment Groups, and the identical survey and tests were given to students from both
groups. Both surveys and tests were scored using the same techniques. As for the MC tests, items lead to guessing on part of the students do not neatly fit the Rasch model (Canner & Lenke, 1980). To neutralize this, distractors were included to each question’s response set. For the survey, the number of response categories (four) is enough to generally increase scale reliability (Wolf, 1997). To measure the consistency of survey and MC test items and the student responses, the Rasch WINSTEPS statistical computer program calculated person/item separation reliabilities and person/item separation indices. Post-run evaluation took place and decisions made to keep or extract students and/or items from those instruments. This threat level is considered LOW.

Validity

In order to determine whether the MC items and survey questions actually measure what they are intended to, there was multiple risk mitigation tactics built into the methodology to address the threats to validity that this study may encounter.

Construct validity

In order to reduce the threat of confounding (i.e., more than one interpretation of cause and effect constructs) (Cook & Campbell, 1979), the Rasch program outputs of student and item ordering matrices, and student and item misfit statistics were employed. Students with responses varying from the model, and items straying from the unidimensional variable were reviewed and possibly pulled from the data. This threat level is considered LOW.
Internal validity

Internal validity refers to the level of confidence “that a relationship between two variables is causal or that the absence of a relationship implies the absence of cause” (Cook & Campbell, p. 37). Unlike experimental design which uses random assignment and by definition rules out all alternative causes of internal validity, this study will incorporate quasi-experimental methods and therefore will include such structural design features as pretests and comparison groups (Wolf, 1997). Listed below are several of the types of threats to internal validity, along with their recommended approaches for reducing the impact of those threats.

- **Implementation** – (Threat level - MODERATE to HIGH): Researcher and instructor will be the same person for this study. Although this may introduce bias, use of detailed lesson plans and thoroughly tested and modified instruments will help minimize this threat. This approach will eliminate teaching and attitudinal inconsistency, as well as reduce instructor variability (Fraenkel & Wallen, 2000; Li & Baihlie, 1993). To provide a basis for comparison, an experienced BUS 101 instructor administered the same five MC-tests to his class.

- **Subject Characteristics** – (Threat level - MODERATE to HIGH): The researcher cannot control which class sections the students choose. This threat will be minimized by using time series research design.

- **Mortality** – (Threat level - LOW to MODERATE): Normal class retention for BUS 101 is 90+% because it is a moderately difficult prerequisite
course. The matching research design technique, as explained above, could lead to reduced participants in the study.

- **Attitude of Participants** – (Threat level - LOW to MODERATE): Students from one group may talk to students in another group and compare teaching methods. Content and instruments are the same, however. In addition, all participating students were eligible for one of two $50 gift cards drawn at the beginning and end of the semester.

- **Location** – (Threat level – LOW): The same type of classroom with similar A/V equipment, seating arrangements and climate controls were used in this study. Also, every attempt was made to select BUS 101 sections that consist of similar class days and times for both groups (see Participants section in this chapter).

- **Instrumentation** – (Threat level – LOW): All tests, as a matter of continuous improvement, are routinely analyzed and improved using Rasch and other techniques (i.e., those MC questions that are misfitted using Rasch are modified). The students received the most recently modified exams available. In addition, MC-tests were computer scored, all but eliminating the chance for human error. Also, the effects of guessing were neutralized by adding distractors to each question response set.

- **Testing** – (Threat level – LOW): The same survey for was used for pre-post-implementation – attitudinal-based only. All participants were eligible for one of two $50 gift cards drawn at the beginning and end of the semester.
- **History** – (Threat level – LOW): Extraneous events are unlikely, and, except for the Treatment, classes were run exactly the same.

- **Maturation** – (Threat level – LOW): The research design included a comparison group (non-Treatment) that was taught by the same instructor using the same instruments.

- **Regression** – (Threat level – LOW): This is similar to maturation, where the research design included a comparison group (non-Treatment) that was taught by the same instructor using the same instruments.

**Summary**

The purpose of this section was to outline the difference between experimental and quasi-experimental research, the study’s research design, participants, instruments and data gathering, implementation, data management, data analyses, research questions and hypotheses, overview of statistical methods, overview of Rasch, and threats to reliability and validity and mitigation strategies. The next chapter will discuss the results of this research.
Chapter 4: Results

The purpose of this study was to examine the effects that two distinctly different teaching methods had upon students taking an introductory business course at a large two-year community college in northwest Ohio. Specifically, this study was to determine if there were any differences in learning, retention, attendance, interest, and satisfaction from a group of students exposed to a teaching method incorporating popular culture versus a teaching method not incorporating popular culture. In this chapter, I reintroduce the problem statements and their respective alternative hypotheses, and present the research data analyses that support or refute the hypotheses. As mentioned in Chapter 3, independent $t$-tests were used to measure differences in the study’s participant samples on attendance and knowledge (i.e., MC test scores) while chi-square cross-tabulations were used to measure differences in retention and knowledge (i.e., number of correct key questions from the MC tests). Dependent paired samples were used to measure differences in pre-and post-Likert survey responses: perceived knowledge, interest in additional business courses, interest in the business major, and satisfaction. Finally, Rasch-based statistics, described in Chapter 3, were used to measure item and person fit, separation, and reliability of the survey and MC tests, and were processed first since their output in some cases determined whether an item and/or person was removed from the data and therefore subsequent statistical tests for significance.
Research Questions and Hypotheses

Before breaking down each of the research questions and their respective hypotheses, I will reintroduce the seminal instrument used in gathering data from the Treatment and Control Group participants: the attitudinal pre- and post-semester survey (see Appendix A). The pre-semester attitudinal survey (Pre-Delivery Survey) was issued the second day of class for all six sections, and completed by 56 students in the Control classes and 65 students in the Treatment classes. On the second-to-last day of the semester, the same survey (Post-Delivery Survey) was distributed to all sections and completed by 49 Control and 52 Treatment students. Subsequently, there were some students from both the Treatment and Control Groups that did not complete both surveys. Since the potential change in student attitudes in their Pre-Delivery Survey and Post-Delivery Survey responses were of interest, I only used the questionnaires from students who submitted both versions: 47 completed questionnaires from the Treatment Group and 40 from the Control Group.

The Pre-Delivery Survey and Post-Delivery Survey data was ran using the Winsteps Rasch computer program, with summary statistics generated and exhibited Table 2. The item reliability, Pre-Delivery Survey and Post-Delivery Survey for are strong at over .95 for both groups and questionnaire periods. The person reliability is adequate but not as strong, indicating a narrower agreeability range. Presumably, the low Person Separation appears to indicate that most of these students agree as a group on the teaching technique preferences. A key observation in Table 2 is the increase in item separation between the beginning and end of semester computations. This shows that, as
a group, the survey items have distinguished themselves from each other in the opinions of the students.

Table 2

*Rasch statistics from Pre- and Post-Survey*

<table>
<thead>
<tr>
<th>Type</th>
<th>Rating Scale</th>
<th>Step Category</th>
<th>Person Calibration</th>
<th>Person Separation</th>
<th>Item Separation</th>
<th>Item Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>pre</td>
<td>Strongly Agree</td>
<td>None</td>
<td>1.53</td>
<td>.70</td>
<td>4.52</td>
<td>.95</td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Strongly</td>
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<td>Disagree</td>
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</tr>
<tr>
<td>post</td>
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<td>.76</td>
<td>9.55</td>
<td>.99</td>
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<tr>
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</tr>
<tr>
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<td>Strongly</td>
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</table>
Table 2 (Continued)

Control Group\textsuperscript{b}

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<tr>
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<td></td>
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<tr>
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</table>

Table 2 (Continued)

\textit{Rasch statistics from Pre- and Post-Delivery Survey}

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<td>Disagree</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

\textbf{Note:} Reviewed both pre- and Post-Delivery Surveys and used iterative approach in order to generate largest gain in statistical strength. Treatment 2\textsuperscript{nd} run of Pre-Delivery Survey lower statistics offset by gain in Post-Delivery Survey statistics (see Table FF)
\textsuperscript{a} deleted three students due to misfit and improvement to Treatment Group post-test
\textsuperscript{b} deleted seven students due to misfit

In actuality, these statistics reflect an iterative process from initial Winsteps program runs whereby the infit, outfit, and point-serial correlation readings of persons (participants) and items (survey questions) were reviewed for values outside acceptable
ranges. The general range for acceptable infit and outfit values is .7 – 1.3, and point-serial values > .10 (Bond & Fox, 2001). Items or persons that fell outside these tolerances were considered for removal. Figure 3 shows results each survey group’s respective initial run of the person entry order tables. Participant data that had out of range statistics were examined and tested in subsequent Winsteps program runs. This process was repeated in an iterative fashion for both the Treatment and Control surveys, with the final result being three persons removed from the Treatment Group and five from the Control Group (see shaded areas of Figure 3).
| ENTRY | TOTAL | MODEL | INFIT | INFIT | OUTFIT | OUTFIT | PT-MEA | MEASURE | S.E. | MNSQ | ZSTD | MNSQ | ZSTD | CORR. | Tstudent |
|-------|-------|-------|-------|-------|--------|--------|--------|---------|-----|-------|-------|-------|-------|-------|---------|----------|
|       |       |       |       |       |        |        |        |         |     |       |       |       |       |        |          |
|       |       |       |       |       |        |        |        |         |     |       |       |       |       |        |          |
|       |       |       |       |       |        |        |        |         |     |       |       |       |       |        |          |
|       |       |       |       |       |        |        |        |         |     |       |       |       |       |        |          |

**Figure 3.** Initial Pre-Delivery person entry tables Treatment and Control Groups
**Figure 3. Initial Pre-Delivery person entry tables Treatment and Control Groups** (Continued)

**Control Group**

<table>
<thead>
<tr>
<th>NUMBER</th>
<th>SCORE</th>
<th>COUNT</th>
<th>MEASURE</th>
<th>S.E.</th>
<th>MNSQ</th>
<th>ZSTD</th>
<th>MNSQ</th>
<th>ZSTD</th>
<th>CORR.</th>
<th>C student</th>
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<td>-2.0</td>
<td>0.00</td>
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...
Another way to examine the student data as a whole is by using an item-person, or variable map. This is a picture view of survey item endorsability and person agreeability (or, in the case the MC tests, item difficulty and person ability). The logit scale that runs down the middle of the map is the measurement unit universal to both the item and the person (Bond & Fox, 2001). Figure 4 introduces the Pre-Delivery Survey and Post-Delivery Survey variable map of the Treatment Group, with the questionnaire ratings of the students on the left side of the map, and the level of endorsement of each survey item (please refer to the variable map legend). In general, the level of endorsement considerably leans toward the attitudes influenced by popular culture teaching techniques. This should not be surprising as this Treatment Group’s attitudes, already strong before the course was ever taught, have now been reinforced by actually experiencing the actual instructional methods for 17 weeks.

In reviewing the Control Group variable map (see Figure 5), the difference in logits for both the item and person separation is similar to the Treatment Group, although the former map indicates a smaller disparity. This is probably due to the fact that the Control Group, of course, did not experience the popular culture teaching technique during the semester, so therefore did not have their initial preferences reinforced. Going forward, each of these attitude measurements will be decoupled as they relate to their respective research question and alternative hypothesis.
Figure 4. Variable Map: Treatment Group Pre-Post Delivery Survey
Figure 5. Variable Map: Control Group Pre-Post Delivery Survey

Legend:
- **CompPpre** – comprehension, PC methods, pre-semester
- **CompPpost** – comprehension, PC methods, post-semester
- **CompTpre** – comprehension, non-PC methods, pre-semester
- **CompTpost** – comprehension, non-PC methods, post-semester
- **MajrPpre** – interest in business major, PC methods, pre-semester
- **MajrPpost** – interest in business major, PC methods, post-semester
- **MajrTpre** – interest in business major, non-PC methods, pre-semester
- **MajrTpost** – interest in business major, non-PC methods, post-semester
- **AddbPpre** – interest in add. Bus. Courses, PC methods, pre-semester
- **AddbPpost** – interest in add. Bus. Courses, PC methods, post-semester
- **AddbTpre** – interest in add. Bus. Courses, non-PC methods, pre-semester
- **AddbTpost** – interest in add. Bus. courses non-PC methods, post-semester
- **SatiPpre** – satisfaction, PC methods, pre-semester
- **SatiPpost** – satisfaction, PC methods, post-semester
- **SatiTpre** – satisfaction, non-PC methods, pre-semester
- **SatiTpost** – satisfaction, non-PC methods, pre-semester

X = 1 student
Research Question 1, Hypothesis 1

Research question 1: Do differences exist relative to student learning when a business course is taught incorporating popular culture versus one taught without incorporating popular culture?

Hypothesis 1: Students exposed to a business course taught incorporating popular culture will score higher on multiple-choice tests than those exposed to one taught without incorporating popular culture.

To address this question and test the hypothesis, the results of each multiple-choice (MC) were reviewed first using Rasch statistics, and then tested as an independent \( t \) for differences in the total score means by teaching techniques. A secondary evaluation was implemented, whereby 15-20 questions per exam that specifically addressed topics taught, or not taught, using popular cultural media and follow-up activities were pulled from the original 75 MC exam questions and tested using chi-squares cross-tabulations by instructional methods.

Table 3 shows the Rasch summary statistics for all five MC tests given to the primary research groups, Treatment and Control, and a “test” group at a satellite campus. As indicated in Chapter 3, the main purpose of the test group was to reduce the threat of implementation methods (i.e., reduce the potential for instructor and/or test bias). This group took the same MC tests, and was taught by an experienced instructor who agreed not to use popular culture in his teaching style. With one exception (.69 from the satellite campus group, MC Test 3), the person reliability was strong, ranging from .80 to .91. This indicates that there was a large ability range of the students taking these tests. The same logic applies to the person separation statistics for both campuses, with a range
of 1.99 to 3.18. There was also one outlier student from the satellite group, not coincidently from the same test, MC 3. Regarding the item reliability, the main campus group values were very strong (.94 - .95), indicating a large difficulty range. The satellite group statistics, however, did not even register an item reliability reading in most some cases. This was due primarily because of the extremely small sample sizes for each MC test. Similar to the pre- and post-semester survey, both item and person entry tables were examined for misfitting entries, with adjustments and resubmissions to the Winsteps made. Although there were several candidates for removal, several iterations via Winsteps did not result in any improvements to separation or reliability.

Table 3

Rasch statistics of MC tests

<table>
<thead>
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<th>MC Test</th>
<th>N</th>
<th>Type</th>
<th>Person Separation</th>
<th>Person Reliability</th>
<th>Item Separation</th>
<th>Item Reliability</th>
</tr>
</thead>
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<td>.89</td>
<td>4.22</td>
<td>.95</td>
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<tr>
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<td>110</td>
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<td>.90</td>
<td>4.32</td>
<td>.95</td>
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<td>.57</td>
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</tbody>
</table>

Note: The “type” of test refers to either “M”, or Main Campus primary research study groups, and “S”, or the Satellite Campus test research group. *There was not improvement to any of the primary research study’s tests after initial runs.
Once these MC exams were substantiated using Rasch, they were subjected to independent \( t \)-tests. Table 4 shows no statistical significance between the means of the Control and Treatment Groups for any of the five multiple-choice tests. Both groups performed about the same on each test, although it should be noted that the average score for the Control, however miniscule, was actually greater than the Treatment for every test. Although this outcome was not expected, it is not surprising given the fact that all class sections were intact, and there was no realistic way to separate them into balanced, stratified samples. For example, one class section that happened to be part of the Control Group outperformed all other classes by an average of four points per exam.

Table 4

*Independent \( t \)-tests for method of instruction on MC test scores*

<table>
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<tr>
<th>MC</th>
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<th>N</th>
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<th>Std. Dev.</th>
<th>( t )</th>
<th>df</th>
<th>Sig (2-tailed)</th>
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<td>.835</td>
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</tbody>
</table>
The second analysis for Research Question 1/Hypothesis 1 incorporated the use of chi-square cross-tabulations on a select group of questions from each of the five MC tests. These questions were directly related to textbook constructs taught in class using popular culture media for the Treatment Group, and non-popular culture media for the Control Group. As with the independent t-tests, the chi-square cross-tabulations did not support Hypothesis 1 as strongly as predicted. In fact, only 4 out of the 87 questions chosen for this hypothesis test were statistically significant and therefore supported the assumption. Two questions from MC Test 1 dealing with ethics had the following crosstab analyses: Q67 [X2(1, N = 122) = 5.27, p = .022] and Q68 [X2(1, N = 122) = 8.32, p = .004]. One question from MC Test 2 pertaining to leadership style generated this result: Q53 [X2(1, N = 111) = 4.62, p = .032]. And lastly, one question from MC Test 5 referencing the Sarbanes-Oxley Act yielded this outcome: Q2 [X2(1, N = 74) = 4.01, p = .045]. More details regarding these four questions and their respective crosstabs can be found in Appendix F. In summary, the statistical analyses supported the null hypotheses for this research; specifically, that there was not overwhelming evidence that students being taught business using pop culture score higher on MC tests over those students not exposed to this method. A more thorough discussion of these results will be addressed in Chapter 5.
Research Question 2, Hypothesis 2

Research question 2: Do differences exist relative to perceived student comprehension when a business course is taught incorporating popular culture versus one taught without incorporating popular culture?

Hypothesis 2: Students exposed to a business course taught incorporating popular culture will have higher levels of perceived comprehension of course topics than those exposed to one taught without incorporating popular culture.

The prediction that students who took a business class with popular culture-laden instruction would have higher levels of perceived comprehension was addressed with two Pre-Delivery Survey and Post-Delivery Survey statements: “Incorporating popular culture media (movies, films, cartoons, television shows, etc.) that are related to a business course helps me to better understand the topic” and, “Instructors who use traditional lecture-based teaching methods (without using popular culture media) help me to better understand the topic.” The variable map in Figure 6 shows the Pre-Delivery Survey and Post-Delivery Survey comprehension results from the Treatment Group, while Figure 7 does the same for the Control Group.
<table>
<thead>
<tr>
<th>Tstudents</th>
<th>Survey Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;more&gt;</td>
<td>&lt;rare&gt;</td>
</tr>
<tr>
<td>4</td>
<td>.#</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>###</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>######</td>
</tr>
<tr>
<td>1</td>
<td>######</td>
</tr>
<tr>
<td>0</td>
<td>###</td>
</tr>
<tr>
<td>-1</td>
<td>#</td>
</tr>
<tr>
<td>-2</td>
<td></td>
</tr>
<tr>
<td>-3</td>
<td>&lt;less&gt;</td>
</tr>
</tbody>
</table>

Legend:
- CompPpre – comprehension, PC methods, pre-semester
- CompPpost – comprehension, PC methods, post-semester
- CompTpre – comprehension, non-PC methods, pre-semester
- CompTpost – comprehension, non-PC methods, post-semester

# = 2 students
. = 1 student

*Figure 6. Variable Map: Treatment Group Perceived Comprehension*
Figure 7. Variable Map: Control Group Perceived Comprehension
In both variable maps for perceived comprehension, there is very little person separation (i.e., the students didn’t separate themselves in their general survey ratings). In addition, there is almost no difference in the endorsability of CompTpre and CompTpost. However, there was substantial separation of endorsability both in the students’ opinions of CompP and CompT styles, as well as in Pre-Delivery Survey and Post-Delivery Survey results when comparing popular culture/comprehension variable by itself.

Because the participants from both groups were asked for their opinions before and after being exposed to the Treatments, their findings required a comparison of means. This technique uses dependent paired samples (see Table 5) to compare any effect that a Treatment had on the participant after a period of time; in this case one semester (Wiersma, 2005). For the survey item “Incorporating popular culture...helps me better understand the topic,” the Treatment Group Post-Delivery Survey score ($M = 3.68, SD = .471$) was significantly larger than the same group’s Pre-Delivery Survey score ($M = 3.27, SD = .544$), $t(43) = 4.363, p = .000$ (two-tailed). Similar results were reported for the Control Group Post-Delivery Survey score ($M = 3.73, SD = .452$) vs. the group’s Pre-Delivery Survey score ($M = 3.36, SD = .603$), $t(32) = 2.988, p = .005$ (two-tailed). And as expected, comparable output was detailed for the Combined Group Post-Delivery Survey score ($M = 3.70, SD = .461$) vs. the group’s Pre-Delivery Survey score ($M = 3.31, SD = .568$), $t(76) = 5.243, p = .000$ (two-tailed). Conversely, the survey item “Instructors who use traditional lecture-based teaching methods (without using popular culture media)...helps me better understand the topic” did not show significance between the pre and Post-Delivery Survey scores for any of the three group formats.
Table 5

Paired samples t-tests about perceived comprehension

<table>
<thead>
<tr>
<th>Survey Item</th>
<th>Mean</th>
<th>df</th>
<th>t</th>
<th>Sig (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean difference</td>
<td>df</td>
<td>t</td>
<td>Sig (2-tailed)</td>
</tr>
<tr>
<td>Treatment Group</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CompPpre vs. CompPpost</td>
<td>.409</td>
<td>43</td>
<td>4.363*</td>
<td>.000</td>
</tr>
<tr>
<td>CompTpre vs. CompTpost</td>
<td>-.114</td>
<td>43</td>
<td>-1.000</td>
<td>.323</td>
</tr>
<tr>
<td>Control Group</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CompPpre vs. CompPpost</td>
<td>.364</td>
<td>32</td>
<td>2.988*</td>
<td>.005</td>
</tr>
<tr>
<td>CompTpre vs. CompTpost</td>
<td>.030</td>
<td>32</td>
<td>.205</td>
<td>.839</td>
</tr>
<tr>
<td>Combined Group</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CompPpre vs. CompPpost</td>
<td>.390</td>
<td>76</td>
<td>5.243*</td>
<td>.000</td>
</tr>
<tr>
<td>CompTpre vs. CompTpost</td>
<td>-.052</td>
<td>76</td>
<td>-.575</td>
<td>.567</td>
</tr>
</tbody>
</table>

*p < .05

As predicted, the students from the Treatment Group did associate being taught a business course that incorporated popular culture material would enable them to understand topics better. Moreover, the Control Group also associated popular culture methods and greater perceived understanding of material with a higher intensity at the end of the semester even though they were not exposed to that technique in this class. For the Treatment Group, the significant Pre-Delivery Survey, Post-Delivery Survey difference is understandable given their exposure to the popular culture teaching style. In the Control Group, the difference in pre/post feelings about the PC style toward perceived
comprehension is not as straightforward. Post-semester inquiries would be needed to ascertain why they showed a greater affinity to a teaching technique not offered them.

**Research Question 3, Hypothesis 3**

**Research question 3:** Do differences exist relative to student semester retention when a business course is taught incorporating popular culture versus one taught without incorporating popular culture.

**Hypothesis 3:** Students exposed to a business course taught incorporating popular culture will complete the course with a “D” or better in greater numbers during the semester than those taking one taught without incorporating popular culture.

Chi-square cross-tabulations were employed to test the hypothesis for Research Question 3 (see Table 6). The analysis for the chi-square $X^2(1, N = 140) = .366, p = .545$ was not significant, therefore supporting the null hypothesis that retention rates are not affected by teaching style. These results indicated that an almost equal proportion of students from each group received a “D” or greater for the course and, subsequently, did not pass their class section (roughly 1/3). A historical review of average retention rates for this course would be beneficial to determine if these test groups differed significantly from those in the past. Also, follow-up inquiries as to why the students failed to complete the requirements at a “D” level would be warranted.
Table 6

Cross-tabulation of Teaching Style on retention

<table>
<thead>
<tr>
<th>Teaching Style</th>
<th>Grade of D or better</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>Retention</td>
<td>Retention</td>
<td>Total</td>
</tr>
<tr>
<td></td>
<td>Pop C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Pop C</td>
<td>Count</td>
<td>26</td>
<td>42</td>
<td>68</td>
</tr>
<tr>
<td></td>
<td>Expected Count</td>
<td>24.3</td>
<td>43.7</td>
<td>68.0</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>1.7</td>
<td>-1.7</td>
<td></td>
</tr>
<tr>
<td>Pop C</td>
<td>Count</td>
<td>24</td>
<td>48</td>
<td>72</td>
</tr>
<tr>
<td></td>
<td>Expected Count</td>
<td>25.7</td>
<td>46.3</td>
<td>72.0</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>-1.7</td>
<td>1.7</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>50</td>
<td>90</td>
<td>140</td>
</tr>
<tr>
<td></td>
<td>Expected Count</td>
<td>50.0</td>
<td>90.0</td>
<td>140.0</td>
</tr>
</tbody>
</table>
Research Question 4, Hypothesis 4

Research question 4: Do differences exist relative to student semester attendance when a business course is taught incorporating popular culture versus one taught without incorporating popular culture??

Hypothesis 4: Students exposed to a business course taught incorporating popular culture will attend more class sessions during the semester than those exposed to one taught without incorporating popular culture.

As mentioned in the beginning of this chapter, independent t-tests were engaged to examine this research question. The alternative hypothesis failed $t(138) = -0.243, p = .809$ (two-tailed) indicating that the Treatment Group ($N = 72, M = 16.17, SD = 5.61$) did not attend significantly more classes based on receiving a popular culture-enhanced teaching style than the Control Group ($N = 68, M = 15.91, SD = 6.80$) who were not exposed to this method. The average attendance was nearly identical (i.e. students came to class 70% of the time), indicating that teaching style was not a determinant on showing up for class. Similarly to the retention question, a review of attendance rates would be in order. However, since not all instructors keep an attendance log, the amount of data available would be limited. Also, follow-up interviews with the students to why they attended or not attended class would be reasonable.
Research Question 5, Hypothesis 5

Research question 5: Do differences exist relative to student interest in the discipline of business when a business course is taught incorporating popular culture versus one taught without incorporating popular culture?

Hypothesis 5: Students exposed to a business course taught incorporating popular culture will have higher levels of interest in the business discipline than those exposed to one taught without incorporating popular culture.

The anticipation that students would have increased levels of interest in business was addressed with two Pre-Delivery Survey and Post-Delivery Survey entries:

“Incorporating popular culture media (movies, films, cartoons, television shows, etc.) that are related to a business course increases my interest to remain in or change to a business as a major” and, “Instructors who use traditional lecture-based teaching methods (without using popular culture media) increases my interest to remain in or change to a business as a major.” Figure 8 depicts a variable map that combines the Pre-Delivery Survey and Post-Delivery Survey “interest in the business major” results from the Treatment Group, while Figure 9 does the same for the Control Group.
Figure 8. Variable Map: Treatment Group Interest in Business Major

Legend:
- MajrPre – interest in business major, PC methods, pre-semester
- MajrPost - interest in business major, PC methods, post-semester
- MajrTpre - interest in business major, non-PC methods, pre-semester
- MajrTpost - interest in business major, non-PC methods, pre-semester

# = 2 students
. = 1 student
Figure 9. Variable Map: Control Group Interest in Business Major

Legend:
MajrPre – interest in business major, PC methods, pre-semester
MajrPost - interest in business major, PC methods, post-semester
MajrTpre - interest in business major, non-PC methods, pre-semester
MajrTpost - interest in business major, non-PC methods, pre-semester

X = 1 student
In both variable maps, the student feelings on this topic show very little separation, implying general agreeability. In addition, there is almost no difference in both groups’ students when asked to rank MajrT both before and after the semester. Both group’s attitudes about MajrP versus MajrT showed noticeable separation of opinion, but the Treatment Group showed a sizable difference in the Pre-Delivery Survey and Post-Delivery Survey results when comparing MajrPpre and MajrPpost.

The dependent paired samples analyses (see Table 7) for the survey item “Incorporating popular culture…increases my interest to remain in or changing to business as a major” shows, as predicted, that the Treatment Group Post-Delivery Survey score ($M = 3.30, SD = .599$) was significantly larger than the same group’s Pre-Delivery Survey score ($M = 2.84, SD = .871$), $t(42) = 2.892, p = .006$ (two-tailed). Also as expected, comparable output for the Combined Group Post-Delivery Survey score ($M = 3.26, SD = .640$) vs. the group’s Pre-Delivery Survey score ($M = 2.93, SD = .789$), $t(75) = 2.952, p = .004$ (two-tailed). However, the Control group results from the Post-Delivery Survey score ($M = 3.21, SD = .696$) vs. the group’s Pre-Delivery Survey score did not show a significant difference ($M = 3.06, SD = .659$), $t(32) = 1.044, p = .304$ (two-tailed). The comparison of Pre-Delivery Survey and Post-Delivery Survey scores for the survey item “Incorporating popular culture…increases my interest to remain in or changing to business as a major” did not show significance for any of the three group formats.
Table 7

*Paired samples t-tests about interest in business as a major*

<table>
<thead>
<tr>
<th>Survey Item</th>
<th>Mean</th>
<th>df</th>
<th>t</th>
<th>Sig (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Treatment Group</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MajrPpre vs. MajrPpost</td>
<td>.465</td>
<td>42</td>
<td>2.892*</td>
<td>.006</td>
</tr>
<tr>
<td>MajrTpre vs. MajrTpost</td>
<td>-.114</td>
<td>43</td>
<td>-1.000</td>
<td>.323</td>
</tr>
<tr>
<td><strong>Control Group</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MajrPpre vs. MajrPpost</td>
<td>.152</td>
<td>32</td>
<td>1.044</td>
<td>.304</td>
</tr>
<tr>
<td>MajrTpre vs. MajrTpost</td>
<td>-.152</td>
<td>32</td>
<td>-1.22</td>
<td>.231</td>
</tr>
<tr>
<td><strong>Combined Group</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MajrPpre vs. MajrPpost</td>
<td>.329</td>
<td>75</td>
<td>2.952*</td>
<td>.004</td>
</tr>
<tr>
<td>MajrTpre vs. MajrTpost</td>
<td>-.130</td>
<td>76</td>
<td>1.55</td>
<td>.124</td>
</tr>
</tbody>
</table>

*p < .05

As predicted, the students from the Treatment Group did associate being taught a business course that incorporated popular culture material would increase their interest in business a major. The Control Group also showed a preference toward the popular culture teaching method both pre and post-semester, but with less intensity than their counter group. Again, this is worth mentioning because the Control Group was not exposed to this kind of method, *yet still preferred it* over the traditional style.
Research Question 6, Hypothesis 6

Research question 6: Do differences exist relative to student's interest in taking additional business courses when a business course is taught incorporating popular culture versus one taught without incorporating popular culture?

Hypothesis 6: Students exposed to a business course taught incorporating popular culture will have higher levels of interest in taking additional business courses than those exposed to one taught without incorporating popular culture.

The expectation that students, when exposed to teaching methods enhanced with popular culture would have increased levels of interest in taking additional business courses focused on two Pre-Delivery Survey and Post-Delivery Survey statements:

“Incorporating popular culture media (movies, films, cartoons, television shows, etc.) that are related to a business course increases my interest in taking additional business courses” and, “Instructors who use traditional lecture-based teaching methods (without using popular culture media) increases my interest to remain in or taking additional business courses.” Figure 10 is a map that combines the pre and post survey for these items results from the Treatment Group, while Figure 11 does the same for the Control Group.
Figure 10. Variable Map: Treatment Group Interest in Taking Additional Courses
Figure 11. Variable Map: Control Group Interest in Taking Additional Courses
Once again, most of the students’ ratings are clustered together, indicating little dispersion in attitudes either within or between the groups. In addition, there is almost no difference in the student Pre-Delivery Survey and Post-Delivery Survey responses when asked to rank their interest in taking additional business courses. On the other hand, there is a clear separation in both groups regarding their endorsability of AddbP over AddbT. There is also a sizable gap for both groups between AddbPpre and AddPpost questionnaire items, although the gap is slightly wider for the Treatment Group.

The dependent paired samples analyses (Table 8) for the survey item “Incorporating popular culture… increases my interest in taking additional businesses courses” shows, as predicted, that the Treatment Group Post-Delivery Survey score ($M = 3.33, SD = .566$) was significantly larger than the same group’s Pre-Delivery Survey score ($M = 3.00, SD = .690$), $t(42) = 2.468, p = .018$ (two-tailed). Also, comparable output for the Combined Group Post-Delivery Survey score ($M = 3.20, SD = .633$) vs. the group’s Pre-Delivery Survey score ($M = 2.91, SD = .657$), $t(75) = 3.167, p = .002$ (two-tailed). While not statistically significant at the $p > .05$ level, the Control Group’s Post-Delivery Survey score ($M = 3.03, SD = .684$) vs. the group’s Pre-Delivery Survey score did show a substantial difference ($M = 2.79, SD = .600$), $t(32) = 1.966, p = .058$ (two-tailed). The comparison of Pre-Delivery Survey and Post-Delivery Survey scores for the survey item “Instructors who use traditional lecture-based teaching methods… increases my interest to remain in or taking additional businesses courses” did not show significance between the means of any group.
Table 8

*Paired samples t-tests about interest in additional business courses*

<table>
<thead>
<tr>
<th>Survey Item</th>
<th>Mean difference</th>
<th>df</th>
<th>t</th>
<th>Sig (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Treatment Group</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AddbPpre vs. AddbPpost</td>
<td>.326</td>
<td>42</td>
<td>2.468*</td>
<td>.018</td>
</tr>
<tr>
<td>AddbTpre vs. AddbTpost</td>
<td>-.136</td>
<td>43</td>
<td>-1.232</td>
<td>.225</td>
</tr>
<tr>
<td></td>
<td>Control Group</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AddbPpre vs. AddbPpost</td>
<td>.242</td>
<td>32</td>
<td>1.966</td>
<td>.058</td>
</tr>
<tr>
<td>AddbTpre vs. AddbTpost</td>
<td>-.152</td>
<td>32</td>
<td>-.926</td>
<td>.361</td>
</tr>
<tr>
<td></td>
<td>Combined Group</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AddbPpre vs. AddbPpost</td>
<td>.289</td>
<td>75</td>
<td>3.167*</td>
<td>.002</td>
</tr>
<tr>
<td>AddbTpre vs. AddbTpost</td>
<td>-.143</td>
<td>76</td>
<td>-1.52</td>
<td>.132</td>
</tr>
</tbody>
</table>

*p < .05

As predicted, the students from the Treatment Group who were exposed to the popular culture teaching techniques had higher interest in taking additional business courses. Reinforcement of the teaching style over the semester probably contributed to the large Pre-Delivery Survey and Post-Delivery Survey differences. As in the first two survey topics, it is worth mentioning that the Control Group also ranked higher the popular culture option, and even increased their rankings as a group after the semester ended *despite* not being exposed to the style.
Research Question 7, Hypothesis 7

Research question 7: Do differences exist relative to student satisfaction when a business course is taught incorporating popular culture versus one taught without incorporating popular culture?

Hypothesis 7: Students exposed to a business course taught incorporating popular culture will have higher levels of course satisfaction than those exposed to one taught without incorporating popular culture.

The prospect that students, when exposed to teaching methods enhanced with popular culture, would have increased levels of satisfaction concentrates on two Pre-Delivery Survey and Post-Delivery Survey statements: “Incorporating popular culture media (movies, films, cartoons, television shows, etc.) that are related to a business course increases my overall level of satisfaction with the course” and, “Instructors who use traditional lecture-based teaching methods (without using popular culture media) increases my overall level of satisfaction with the course.” Figure 12 is a variable map that combines the Pre-Delivery Survey and Post-Delivery Survey results for the Treatment Group, while Figure 13 does the same for the Control Group.
Figure 12. Variable Map: Treatment Group Course Satisfaction
Figure 13: Variable Map: Control Group Course Satisfaction

Legend:
- SatiPpre – satisfaction, PC methods, pre-semester
- SatiPpost - satisfaction, PC methods, post-semester
- SatiTpre - satisfaction, non-PC methods, pre-semester
- SatiTpost - satisfaction, non-PC methods, post-semester

# = 2 students
. = 1 student
There is minimal person separation for this questionnaire item, maintaining the trend found in the previous three constructs. There is also very little separation between the items SatiTpre and SatiTpost, indicating a very little endorsability range for this preference. Also similar to the previous survey analyses, significant differences of endorsability exist for both the Treatment and Control Groups regarding their feelings about SatiT and SatiP. Furthermore, the gap between SatiPpre and SatiPpost is significant for both groups.

The dependent paired samples analyses (Table 9) for the survey item “Incorporating popular culture… increases my overall level of satisfaction with the course” shows, as expected, that the Treatment Group Post-Delivery Survey score \((M = 3.56, SD = .502)\) was significantly larger than the same group’s Pre-Delivery Survey score \((M = 3.19, SD = .664)\), \(t(42) = 3.225, p = .002\) (two-tailed). The Control Group’s Post-Delivery Survey score \((M = 3.58, SD = .561)\) vs. the group’s Pre-Delivery Survey score also showed a statistical difference \((M = 3.27, SD = .561)\), \(t(32) = 2.973, p = .006\) (two-tailed). When taken together, the Combined Group Post-Delivery Survey score \((M = 3.57, SD = .525)\) was significantly larger than the group’s Pre-Delivery Survey score \((M = 3.22, SD = .645)\), \(t(75) = 3.167, p = .000\) (two-tailed). The comparison of Pre-Delivery Survey and Post-Delivery Survey scores for the survey item “Instructors who use traditional lecture-based teaching methods… increases my overall level of satisfaction with the course” did not show significance between the means for any of the groups.
Table 9

*Paired samples t-tests about level of course satisfaction*

<table>
<thead>
<tr>
<th>Survey Item</th>
<th>Mean</th>
<th>df</th>
<th>t</th>
<th>Sig (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Treatment Group</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SatiPpre vs. SatiPpost</td>
<td>.372</td>
<td>42</td>
<td>3.225*</td>
<td>.002</td>
</tr>
<tr>
<td>SatiTpre vs. SatiTpost</td>
<td>-.023</td>
<td>43</td>
<td>-.216</td>
<td>.830</td>
</tr>
<tr>
<td><strong>Control Group</strong></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>SatiPpre vs. SatiPpost</td>
<td>.303</td>
<td>32</td>
<td>2.973*</td>
<td>.006</td>
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<tr>
<td>SatiTpre vs. SatiTpost</td>
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<td>32</td>
<td>-.205</td>
<td>.839</td>
</tr>
<tr>
<td><strong>Combined Group</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SatiPpre vs. SatiPpost</td>
<td>.342</td>
<td>75</td>
<td>4.359*</td>
<td>.000</td>
</tr>
<tr>
<td>SatiTpre vs. SatiTpost</td>
<td>-.026</td>
<td>76</td>
<td>-.300</td>
<td>.765</td>
</tr>
</tbody>
</table>

*p < .05

As stated in the alternative hypothesis, the students from the Treatment Group who were exposed to the popular culture teaching techniques had higher levels of satisfaction for the course over their Control Group counterparts. Nevertheless, the Control Group still showed statistically significant preference with the popular culture teaching method on course satisfaction *despite* being taught with traditional *pedagogy.*
**Research Question 8, Hypothesis 8**

**Research question 8:** Do differences exist relative to student satisfaction between Millennial students and non-Millennial students when both are exposed to a business course taught incorporating popular culture?

**Hypothesis 8:** There is no difference in course satisfaction between Millennial students and non-Millennial students when both are exposed to a business course taught incorporating popular culture.

The prediction that there would be no difference in course satisfaction between Millennial (i.e., born 1980 or after) and non-Millennial (i.e., born before 1980) students that were members of the Treatment Group centered on the following survey questions:

“Incorporating popular culture media (movies, films, cartoons, television shows, etc.) that are related to a business course increases my overall level of satisfaction with the course” and “Instructors who use traditional lecture-based teaching methods (without using popular culture media) increases my overall level of satisfaction with the course.” The variable map shown in Figure 14 combines the Pre-Delivery Survey and Post-Delivery Survey results for the Treatment Millennial students, while Figure 15 does the same for the Treatment non-Millennial students.
Figure 14. Variable Map: Treatment Group, Millennial Students Satisfaction
Figure 15. Variable Map: Treatment Group, non-Millennial Students Satisfaction
Both maps show endorsement in Pre-Delivery Survey and Post-Delivery Survey data for receiving satisfaction through a popular culture teaching manner. For the Millennial students, the SatiTpre and SatiTpost endorsement was almost the same, as was the SatiPpre and SatiPpost endorsement by the non-Millennial students of the popular culture approach. Using independent \( t \)-tests, the analyses proved \textit{as predicted} in the alternative hypothesis that there were no significant differences when comparing any of the satisfaction survey response sets (see Table 10). The only statistically significant measurement was the SatiPpre and SatiPpost differences for the Millennial students \( t(34) = 3.648, p = .001 \) (two-tailed).

Table 10

\textit{Independent t-tests for course satisfaction on Treatment Millennial and non-Millennial Students}

<table>
<thead>
<tr>
<th>Survey Item</th>
<th>Student</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>( t )</th>
<th>df</th>
<th>Sig (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SatiPpre</td>
<td>M</td>
<td>3.14</td>
<td>.692</td>
<td>.900</td>
<td>41</td>
<td>.379</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>3.38</td>
<td>.518</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SatiPpost</td>
<td>M</td>
<td>3.58</td>
<td>.500</td>
<td>-1.060</td>
<td>42</td>
<td>.295</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>3.38</td>
<td>.518</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SatiTpre</td>
<td>M</td>
<td>2.19</td>
<td>.710</td>
<td>1.089</td>
<td>42</td>
<td>.282</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>2.50</td>
<td>.756</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SatiTpost</td>
<td>M</td>
<td>2.22</td>
<td>.540</td>
<td>.135</td>
<td>42</td>
<td>.894</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>2.25</td>
<td>.463</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Millennial (N = 35), non-Millennial (N = 8)
Summary

This study contained eight research questions with eight associated alternative hypotheses that focused on the positive influence of teaching techniques incorporating popular culture in a business class on perceived comprehension, actual comprehension, retention, attendance, interest in business as a major field of study, interest in taking additional business courses, course satisfaction, and generational (lack of) differences in course satisfaction. Based on the results using Rasch-based and traditional-based statistical methods, there were significant positive differences on perceived comprehension, business as major, taking additional courses in business, and course satisfaction, as well as, no generational differences in course satisfaction. There were no significant differences teaching a course with popular culture methods on actual knowledge, retention, or attendance. The next chapter will outline the major findings, implications, limitations, and recommendations of this study. Similar to the absence of research on questions RQ 3 and RQ 4, there were no known studies that measured attitudinal differences among generations receiving this kind of instructional style in a business course.
Chapter 5: Discussion

The purpose of this study was to examine the effects that two distinctly different teaching methods had upon students taking an introductory business course at a large two-year community college in northwest Ohio. This research was to determine if there were any differences in learning, retention, attendance, interest, and satisfaction on a group of students exposed to a teaching method incorporating popular culture versus a teaching method void of popular culture. These topics were woven into eight research questions and related hypotheses. Because the students selected class sections in which they wished to be enrolled for various reasons (e.g., time, day, etc.), the participants were not randomly assigned to either the Treatment or the Control Groups. These self-assigned course sections, therefore, fit the definition of intact groups, and warranted a quasi-experimental research design. One instructor taught all three Treatment Groups (i.e., receiving teaching techniques with the popular culture media) and all three Control Groups (i.e., receiving teaching techniques without popular culture media) in one semester. All participating students completed Pre-Delivery and Post-Delivery attitudinal surveys and five multiple-choice exams. At the conclusion of the term, the data was analyzed and presented in Chapter 4. In this chapter, I will now provide a discussion of the findings that will include conclusions from the data analyses, limitations of the study, and implications and recommendations for instructors and students.

Conceptual framework revisited

The popular culture media events and subsequent activities given the Treatment Group, as well as the non-popular culture associated events and subsequent activities
given the Control Group were all derived from Kolb’s Experiential Learning Theory
Cycle (see Figure 1) described in Chapter 2. Every scenario used throughout the semester
(see Appendix E) followed the ELT framework by providing the students the opportunity
to reflect, conceptualize, experiment, and experience a specific learning objective, and
acted as an active learning supplement to the classroom lectures, textbook readings, sit-
down exams, and homework assignments. One example of how Experiential Learning
Theory worked in the study involved using a clip from the movie *The Dirty Dozen* to help
achieve the learning objective “Describe the key principles of expectancy, reinforcement,
and equity motivational theories.” The students took part in a concrete experience by
watching the film clip, reflected on what they saw by recording moments that mirrored
the motivational theories, conceptualized the experience by addressing inquiries about
what each theory meant to them, then worked with other students and handwrote
responses to specific questions about how the theories were portrayed in the film. This
process was also used with the Control Group, but the concrete experience was a real-life
case study.

Conclusions

*Research Question 1, Hypothesis 1*

*Research Question 1: Do differences exist relative to student learning when a
business course is taught incorporating popular culture versus one taught without
incorporating popular culture?*

*Hypothesis 1: Students exposed to a business course taught incorporating popular
culture will score higher on multiple-choice tests than those exposed to one
taught without incorporating popular culture.*
The results from Chapter 4 indicated that there was no significant difference in whether a student was taught general business concepts using popular culture or not on overall MC test scores. These primary findings support the few quantitative studies conducted where sociology, communication, and family life undergraduate course teaching methodologies were complemented with a form of popular culture media (i.e., feature films only), and the student scores on full or partial objective tests being statistically no worse but no better than student test scores from the same courses taught without using feature films (Baker & Lawrence, 1994; Imig, 1981; Smith, 1973). When comparing the performance on select items of the five MC exams administered, only 4 out of 87 questions chosen for this test supported the alternative hypothesis. This secondary measurement of differences in knowledge between the Treatment and Control Groups partially supports limited research that measured whether cognitive outcomes improved with a class taught using active learning approaches (Michel, Cater III, and Varela, 2009).

It should be no surprise that each of these previous studies used objective tests as their performance measurement tool, just as this project did, thereby authenticating MC tests as a valid and reliable instrument (Choppin, 1997). However, even the most effective exam may not account for differences in entire class test performance. This is probably due to the use of intact groups, with one class section containing inherently brighter students. Case in point, one of the course sections in this study that happened to be arbitrarily designated as a member of the Control Group averaged five points per MC test higher than any other class section, Control or Treatment. Another class averaged five points lower per test. A similar pattern of superior group performance occurred with
the satellite campus test group, as there was very little item separation among the five MC tests; plus they scored much better than the larger Treatment Control Groups, on average.

The minimal relationship of teaching methods on test performance could shortchange the attempt to determine if there was, in fact, a greater transfer of knowledge from the instructor using pop culture to the student receiving that type of instructional style. Less “objective” ways of determining academic competency in an undergraduate course (e.g., essays, case studies, activities, answers to direct discussion questions, etc.) should not be disregarded. Although not measured specifically, the recall of the popular culture media event coupled with structured and unstructured questions from the instructor on how the media related to a particular course construct seemed to elicit higher quality student responses and more classroom excitement than basic questions about textbook subject content. This perspective is broadly consistent with the literature. (see Burton, 2008; Sarason & Banbury, 2004; Sprau, 2001; Weinrauch, 2005).

Another possibility of minimal difference in test performance between the Control and Treatment Groups could have been the quality of the instruction. Whether the professor (I) was deemed excellent, average, or poor by the students in the course, he gave maximum effort in preparation and implementation to all six course sections. He also made sure each learning objective and student outcome was met. The only difference regarding the instructor was the teaching method he used. This instructor had a professional responsibility to provide the best product possible, and that responsibility outweighed any side project.

In summary, the conclusions for Research Question 1 are:
Teaching methods did not have a significant effect on MC test scores.

Student performance of those exposed to the popular culture methodology was equivalent to those who were not.

Popular culture-enhanced teaching did prove to make a difference on a small number of media-related questions.

Quasi-experimental research designs using intact groups can influence the data and outcomes of a study.

Students tend to show more excitement and interest in a business course construct, and offer quality responses when the construct is packaged within the context of a popular culture media event.

Using the same instructor for both groups had no impact on the results.

Research Question 2, Hypothesis 2

Research Question 2: Do differences exist relative to perceived student comprehension when a business course is taught incorporating popular culture versus one taught without incorporating popular culture?

Hypothesis 2: Students exposed to a business course taught incorporating popular culture will have higher levels of perceived comprehension of course topics than those exposed to one taught without incorporating popular culture.

The Treatment Group reported that they would achieve significantly greater levels of perceived comprehension of business course topics if those constructs were taught to them using popular culture media. These results mesh with empirical (see Baker & Lawrence, 1994; Burton, 2008; Smith, 1973) and anecdotal (see Cullen, 2005; Guy, 2007; Sweeney, 2007; Thomson, 2007) research. What was a surprise was that this
attitude was also reflected by the Control Group, although with not as much strength. Both groups showed an increase in the intensity of these feelings from the beginning to the end of the course, even though the Control Group never experienced the popular culture-enhanced methods throughout the semester.

The behavior of the Control Group (i.e., actually increasing their belief that they would comprehend more with the PC techniques) could be attributable to their presupposition that the traditional lecture method did not help them learn as effectively as the PC method, and therefore indicated that on the survey. Or, perhaps they did not enjoy the traditional teaching method to which they were exposed and longed for the alternative approach. Regarding both groups, the opinions about perceived comprehension could have been influenced by their individual previous exposure to PC media in an academic setting. This could reflect the idea that students learn in many different ways, and using popular culture has shown to be a very popular method (Thompson, 2007).

In summary, the conclusions for Research Question 2 are:

- Students who received a popular culture-enhanced business course teaching method show a significantly higher level of perceived comprehension of business topics over a method that does not include the use of popular culture.
- The same students show a significant increase in confirming their perceived comprehension of business topics after completing the business course.
- Students not exposed to the popular culture method still prefer it over the traditional approach by a wide-margin.
- Students, if given a choice, feel they would better understand business concepts if the subjects were taught incorporating pop culture.
• Students tend to enjoy learning informally (i.e., without traditional lectures).

Research Question 3, Hypothesis 3

Research Question 3: Do differences exist relative to student semester retention when a business course is taught incorporating popular culture versus one taught without incorporating popular culture

Hypothesis 3: Students exposed to a business course taught incorporating popular culture will complete the course with a “D” or better in greater numbers during the semester than those taking one taught without incorporating popular culture.

In this study, retention was defined as receiving a letter grade of “D” or better. An “F” grade was considered failing the course. There was no significant difference in the rate of retention between the Treatment and Controls Groups taking the Introduction to Business course. Empirical research about the effect of teaching style on retention was non-existent. Anecdotally, students succeed or fail an undergraduate business course for many reasons: performance in tests, essays, projects, cases, missing too many classes, failing to adhere to institutions’ add/drop procedures, and many others.

In summary, the conclusions for Research Question 3 are:

• Students who received a popular culture-enhanced business course teaching method do not show any significantly higher levels of course retention than those who do not receive this type of teaching style.

• For this study, students taking an introductory business course at a community college receive a passing grade of “D” or better for a myriad of reasons, just as they might receive a failing grade of “F”.

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Research Question 4, Hypothesis 4

Research Question 4: Do differences exist relative to student semester attendance when a business course is taught incorporating popular culture versus one taught without incorporating popular culture??

Hypothesis 4: Students exposed to a business course taught incorporating popular culture will attend more class sessions during the semester than those exposed to one taught without incorporating popular culture.

There was no significant difference in the number of classes attended between the Treatment and Controls Groups. For this study, teaching style did not make a difference on this variable. Again, specific research related to the effect on this variable given a particular teaching style was severely lacking. An argument could be made for differences between community college and a traditional four-year college or university students. It could be implied that two-year college students attend fewer classes because of greater employment responsibilities and family commitments (Cohen & Brawer, 2008; Horn, Neville, & Griffith, 2006; Snyder, Dillow, & Hoffman, 2009). In this study, there were several instances where students would miss class due to personal issues, although their reasons were not recorded – just the absence. This indirectly supports opinions made about community college students not being on “academic time,” but rather their own schedule (Giroux and Myrsiades, 2001). Another reason affecting attendance for this course (and any course in higher education for that matter!) is that showing up for class is one of the key requirements for receiving financial aid. Specifically, a student is eligible to receive financial aid once she attends one session. From discussions with college administrators and other faculty, there is a precipitous drop in attendance for some
students once the financial aid checks are mailed. This is a reoccurring issue and would obviously affect both attendance and retention. However, proving that this happens with the habitually absent student was not in this study’s scope.

In summary, the conclusions for Research Question 4 are:

- Students who received a popular culture-enhanced business course teaching method do not attend class with a greater frequency than those who do not receive this type of teaching style.
- For this study, students taking an introductory business course at a community college attend or do not attend class for a myriad of reasons.

Research Question 5: Do differences exist relative to student interest in the discipline of business when a business course is taught incorporating popular culture versus one taught without incorporating popular culture?

Hypothesis 5: Students exposed to a business course taught incorporating popular culture will have higher levels of interest in the business discipline than those exposed to one taught without incorporating popular culture.

The Treatment Group reported that they showed significantly greater levels of interest in the business discipline as a major, either in retaining it or switching to it. Although not at significant levels, the Control Group did show a strong preference for the popular culture teaching method outcome on interest in the business major. This result agrees with the only known study that measured the effect of using a popular culture tool to teach a class on student interest in the major that course represented (Smith, 1973). These findings also supported non-empirical writings about student interest in those courses that offer active learning and popular culture media (Perry, 2004; Tejeda, 2009).
The Pre-Delivery Survey and Post-Delivery Survey significance for the Treatment Group implies that their initial feelings toward popular culture methodology were underlined by being exposed to the same method for 17 weeks. The findings could also have been influenced by the positive effect the instructor had on the participants of either group. Alternatively, the approach to this question from both the Treatment and Control Groups could also have been one of resignation, as in “I’m already taking this course because I am a business major, so I’ve made my mind anyway.” Point of fact, all but a handful of students from both groups were business majors.

In summary, the conclusions for Research Question 5 are:

- Students who received a popular culture-enhanced business course teaching method show a significantly greater interest remaining in or changing to business as a major than those students not receiving the same type of teaching method.
- Students not exposed to the popular culture method still prefer it over the traditional approach by a wide-margin.
- Students that already declared themselves as business majors may have been indifferent toward the question.
- Students’ attitudes toward the instructor could have an impact on how they answered the survey items.
Research Question 6, Hypothesis 6

Research Question 6: Do differences exist relative to student’s interest in taking additional business courses when a business course is taught incorporating popular culture versus one taught without incorporating popular culture?

Hypothesis 6: Students exposed to a business course taught incorporating popular culture will have higher levels of interest in taking additional business courses than those exposed to one taught without incorporating popular culture.

The Treatment Group reported that they would show significantly greater levels of interest in taking additional business courses. Surprisingly, the Control Group who was not exposed to the popular culture style during also showed significant interest in Pre-Delivery Survey and Post-Delivery Survey response, but only at the p>.10 level. The logic of these results mirrors the only other study that evaluated the effect of using popular culture techniques on student interest in taking additional classes within an academic discipline (Smith, 1973).

In summary, the conclusions for Research Question 6 nearly mirror those for Research Question 5, namely:

- Students who received a popular culture-enhanced business course teaching method show a significantly greater interest in taking additional business courses than those students not receiving the same type of teaching method.
- Students not exposed to the popular culture method still prefer it over the traditional approach by a wide-margin.
- Students’ attitudes toward the instructor could have an impact on how they answered the survey items.
• The assumption that either all business instructors would teach other classes the same way, and/or that this course’s instructor would be teaching the other classes could have impacted the survey responses.

Research Question 7, Hypothesis 7

Research Question 7: Do differences exist relative to student satisfaction when a business course is taught incorporating popular culture versus one taught without incorporating popular culture?

Hypothesis 7: Students exposed to a business course taught incorporating popular culture will have higher levels of course satisfaction than those exposed to one taught without incorporating popular culture.

The Treatment Group students reported that they would have significantly greater levels of course satisfaction when taking a course taught with popular culture media than the Control Group students. However, the latter group also showed slightly lower yet still significant levels of satisfaction in their Pre-Delivery Survey and Post-Delivery Survey answers. To reiterate, the Control Group did not experience the popular culture method during the semester. Quantitative empirical research (Baker & Lawrence, 1994; Smith, 1973) and anecdotal research (Boyatzis, 1994; Champoux, 2007; Gerde, 2008; Wright, 2007) strongly support the inference that students obtain much satisfaction from this type of instructional style.

While the term “satisfaction” can be interpreted in several ways, the results seem to overwhelmingly indicate that students would rather, as Wright (2007) pointed out, be taught with instructional methods that “meet (them) wherever they live” (p. 2). Most students (and not just those that attend community colleges) enjoy cartoons, read comic
strips, listen to music, and watch television and movies. The students in both groups of
this study gave the impression that they wanted to have fun while learning the content,
and when the lesson plans for accomplishing learning objectives included showing
popular cartoons, comics, music, and television and movie clips, they appeared to be
more excited, attentive, and interested. Even the more “serious” student seemed to
connect with the method, especially when the media was accompanied with formal
questions and inquiries.

In summary, the conclusions for Research Question 7 are:

- Students in this study overwhelmingly equated the use of popular culture
teaching methods with course satisfaction.
- Students not exposed to popular culture still showed significant preference for
  this style.
- Most students wish to be entertained, and enjoy the use of the same
  entertainment media that is part of their non-academic lives.

Research Question 8, Hypothesis 8

Research Question 8: Do differences exist relative to student satisfaction between
Millennial students and non-Millennial students when both are exposed to a
business course taught incorporating popular culture?

Hypothesis 8: There is no difference in course satisfaction between Millennial
students and non-Millennial students when both are exposed to a business
course taught incorporating popular culture.

Within the Treatment Group, Millennial students (i.e., born 1980 or after) did not
differ significantly from non-Millennial (i.e., born before 1980) students in their attitudes
about course satisfaction. Both sub-groups strongly endorsed the popular culture teaching technique, with the Millennials actually showing a significant increase from Pre-Delivery Survey to Post-Delivery Survey responses on this variable. This suggests a greater level of conviction by the Treatment Millennial students who had their opinions reinforced after experiencing an entire semester popular culture tools. It also suggests that the non-Millennial students were neither anymore impressed nor dissatisfied with the popular culture mode after being part of it. As mentioned in Chapter 1, there was no known research about attitudinal differences between generations regarding a particular teaching style with which to compare this study’s findings. However, the strong preference for this instructional scheme by the non-Millennials should not be surprising, given that this group is known to appreciate active, experiential learning (see Howe & Strauss, 2000).

In summary, the conclusions for Research Question 8 are:

- Non-Millennials obtained more satisfaction, and were more comfortable with an experiential instructional approach that includes popular culture references than the traditional teaching style.
- This type of teaching method was supported by both generations, and was also highly endorsed even when parties were combined in one classroom.

Limitations

One major impetus for doing this research was the lack of empirical studies that attempted to measure performance and attitude given a teaching style that incorporated media that was extremely popular with students. The few that did (see Baker & Lawrence, 1994) readily admitted that their project lacked a strong statistical foundation, and recommended that future research incorporate these measures, as well as perform
comparative studies of Treatment and non-Treatment Groups. This is exactly what I strove to do with my project: undertake a quasi-experiment comparing outcomes from Treatment and Control Groups, with the research supported by sound, fundamental statistical tools. There were, however, several limitations in carrying out this design.

**Quasi-experimental Design**

As explained in the Methodology chapter, I was unable to conduct a true experiment mainly because it was next to impossible to randomly assign students to the Treatment and Control Groups. Also, I could not randomly choose which sections I would teach due to the instructor seniority clause at this particular institution. These and other reasons led to the decision to use a quasi-experimental design with its inherent risks of inconsistent interpretations, non-generalizable findings, and additional threats to validity (Cook & Campbell, 1979). Although there were many tactics used to mitigate these risks (see Methodology Chapter, “Risks”), the ideal situation would have been to implement a true experimental design.

**Intact Groups**

Closely linked to the research design was the need to use intact groups; in this case the groups are the course sections for which students signed up. The participants in each intact group brought to the study a diverse mix of socio-economic, academic, generational, racial, and ethnic characteristics certainly added richness to the project. However, it was impractical to distribute these students and their respective features evenly across six sections of the introduction to business course. I believe this played a substantive part in rejecting the alternative hypothesis that students exposed to a business course taught incorporating popular culture will score higher on multiple-choice tests.
than those exposed to one taught without incorporating popular culture. Incorporating a stratified-random sampling technique would at least offer the researcher a balanced student sample per section with which to begin the study. Also, by being able to choose the amount of each type of student (i.e., for this study, an equal amount of Millennials vs. non-Millennials), the researcher could avoid the related limitation of unbalanced groups, which render useless effective statistical tools like two-way ANOVA and ANCOVA.

One instructor

During the concept paper phase of this dissertation, I proposed that the researcher and instructors be independent of one another, the main reason being to eliminate bias. For practical purposes (i.e., obtaining enough interested instructors, making sure they could carry out the assignment consistently to each group, etc.) I decided to be the researcher and sole instructor for all six sections, Treatment and Control Groups alike. I believe my management of both groups was consistent and impartial. All experiential events for both groups were well-thought out and scripted, with the script followed to the letter. If anything, I felt more pressure to “over teach” the Control Group to avoid any hint of favoritism or bias. Nevertheless, I would suggest an experiment where the researcher was not involved in the instruction. To ensure consistency in teaching method delivery, I would advocate scaling down the popular culture experiences offered throughout the semester but place greater emphasis on associated test questions in order to more thoroughly measure the effect of the teaching style.

Opportunities for future research

In addition to making modifications to the research design as explained earlier (i.e., true experiment vs. quasi-experiment, researcher and instructor separation, etc.),
there are several opportunities to extend and/or supplement this area of empirical research.

*Mixed method approaches.*

The use of popular culture as a teaching tool, although widely used by many instructors in a multitude of disciplines, does not have a body of empirical research to back up its effectiveness. Therefore, any quantitative approach would help its credibility among those that have yet to adapt it to their “teaching toolbox.” All the same, its use can elicit strong emotional feelings from the students that cannot always be measured in numerical terms. Subsequently, future research incorporating qualitative methods would provide greater context with which to complement the statistical data. This could be as minimal as placing a text box in the questionnaire for additional comments to one-on-one interviews of the participants pre- and post-semester.

*Longitudinal opportunities*

The choice of this particular class – Introduction to Business – was purposeful. It is usually the business class taken by business majors, and almost always taken in their first semester on campus. Because over 75% of community college enrollees either get a two-year degree or transfer to four-year schools after two years (Neville & Griffith, 2006), there is time to evaluate several criteria related to the use of popular culture in the classroom: a) did they remain in or change to the business major; b) did they take additional business courses; c) what was their performance, attendance, retention, and satisfaction in future courses that did/did not incorporate popular culture as a teaching method?
Generational comparisons

In this study, only generational differences within the Treatment Group course satisfaction were explored. Future research could examine the same variables that were included in this project plus many others. Multivariate analyses could be performed to identify potential interrelationships among the demographic groups. As was indicated earlier in the Limitations section of this chapter, it is important to use balanced groups for making valid inferences.

Public and private four-year institution, advanced business courses, and non-business courses

As a matter of convenience, I chose to conduct my research at the institution in which I worked, and selected a course of which I taught – namely, a two-year community college and a basic business class. Going forward, studies similar to this might involve advanced business courses where the student has already been initiated with other post-secondary classes in the discipline. Empirical studies engaging students of other disciplines, both within introductory as well as advanced courses, would also be of interest.

Another field of interest would be research the effect of popular culture – enhanced pedagogy on students at four-year institutions, both public and private. One could control for student class (e.g., sophomore, junior, etc.), location (e.g., urban vs. rural), and access (e.g., open vs. limited enrollment). The choice of subject and course level would, of course, depend upon the interest and objective of the researcher.
Implications and Recommendations

A number of implications and associated recommendations developed from this project. In addition to contributing to the limited empirical research body of knowledge, the findings from the study can be applied to two and four-year schools, their faculty, and their students.

Faculty and institutions

Given the spectacular growth in community colleges (Snyder, Dillow, & Hoffman, 2009), the tendency for their administrators to hire adjunct faculty to serve this growth (Jaeger & Eagan Jr., 2009), and the potential threat to instructional quality and student outcomes with using too many contingent instructors (Jacoby, 2006; Jaeger & Hinz, 2008; Umbach, 2007), a likely candidate for incorporating these teaching methods would be part-time instructors. The findings from this study support the use of popular culture media as a supplement to, not a replacement for, course reading materials, classroom discussion, or the instructor himself. Content from this course was never ignored during the research implementation, and never was a film or television clip shown without purpose and follow-up questions and discussion about how the media related to that content.

Similar to using a tool for the first time, proper instruction on how to use this teaching method is warranted. Any educational workshop should include a list of best practice scenarios for the technique, references for acquiring the media, sample questions and activities that are associated with the learning objectives and media events, and follow-up exam questions that measure the knowledge acquired. Also effective is tying the media event to participation or attendance grades. This is to remind the student that
showing *The Simpsons* is not just for fun and entertainment. Perhaps most importantly, the workshop should enlist a seasoned practitioner that could model the technique and observe and give feedback to the adjuncts as they practice the method. This last requirement would not only increase the confidence of those teachers who are novices with using active learning methods, but also emphasize the study’s success metrics to help dispel barriers to incorporating popular culture media. These include lack of familiarity with media technology and too much comfort with traditional lectures. (Svinicki & Dixon, 1987).

Even with proper training, adjunct professors still face the constraint of time. With limited hours to spend on course development and implementation, part-time teachers need to be as efficient as possible. The implication from this study is that these instructors should use methods that have not only proved effective on student performance, but also rated extremely well on student course satisfaction over traditional lecture-based schemes. Why waste their efforts on out of favor techniques? Having said this, I spent well over two months setting up the 20-some popular culture media events for this course. This involved researching for the appropriate media, deciding which ones would appeal to both student generations, viewing the entire film, movie, etc. in order to find the most relevant sections, reducing it to usable “capsules” that could fit into the time-frame of a one-hour 15 minute class, editing for potential objectionable material, and preparing relevant questions that tied to the textbook content and learning objectives. I considered this an investment in my craft, and would have done it regardless of the research motive. But the outcomes in terms of student performance and attitude toward the course proved well worth the effort.
If either the adjunct or full-time instructor wishes to take the time to design one or one hundred popular culture class experiences, there are plenty of resources available to help her. DVDs can be purchased, rented, or borrowed quite easily from various retailers and libraries, and in most cases can be downloaded directly off the internet. There are also user-friendly applications (i.e., Microsoft Movie Maker) with which to convert the media from a full-length movie or episode into a shorter, specific clip that hones in on the desired learning objective. For those teachers who do not want to create these events, but wish to use pertinent media in their classroom, there exist many articles and guidebooks using films, movies, television shows, and even comic strips to help deliver business concepts to the students (Berger & Pratt, 1998; Bluestone, 2002; Champoux, 2004, 2004a, 2007; Gerde and Foster, 2008; and others). Most of these resources include the time interval(s) of the media, instructions on how to set up the event, and related discussion questions and activities. As for the concern over copyright issues, Title 17, Section 110 (1) of the United States Code permits the use of these materials in an environment (i.e. classroom, learning management system) devoted to instruction (see Proctor & Adler, 1991).

Students

Classified as high-risk, a typical community college student comes to the classroom deficient in academic preparedness, skills, and self-confidence (Miranda, 2009), along with other varied attributes that relate to student success or failure. On a positive side and pertinent to this study, they also arrive with generational differences and an appreciation and love for popular culture media. Exposing them to learning experiences that use familiar movies, television episodes, and music could give them
something with which to relate to their home lives and therefore provide them with a level of comfort and confidence. Confidence could lead to improved performance, engagement, and satisfaction. The use of shared popular culture events could also ease the generation anxiety that may exist within the non-Millennials, who haven’t been in a class for a long time, and between them and younger Millennials, who are probably more comfortable in a classroom setting.

Another less immediate but certainly important implication is that student interest in declaring business as their major and taking additional business courses can be affected by teaching styles. There are many reasons for attending class, passing a course, or continuing on to the next semester. If a student comes to class or wishes to major in a particular discipline because that individual is excited by the way a course is taught, perhaps that student will continue to show up the rest of the semester, and the next, and the next. Also, that student could also tell other current and would-be students that something special is going in the School of Business – serious learning that is fun! Promoting this feature at recruiting fairs and through the media certainly would complement all the other benefits of receiving a degree in that field of study.

**Summary**

In this chapter the purpose, methodology, and conceptual framework of the study were revisited, and based on the analyses of the data generated, conclusions for each research question and hypotheses were offered, along with limitations of the study, implications and recommendations, and opportunities for future research. The findings and subsequent conclusions showed that students enrolled in an introduction to business course strongly prefer an active teaching style that included the use of popular culture
media over a traditional, didactic style. This type of instructional method can influence students’ attitudes toward choosing the business major, taking additional business classes, being satisfied with a business course, and having perceived gains in course knowledge. The teaching style presented to the students did not appear to influence actual knowledge gain, attendance, or retention.

Given the positive outcomes associated with a popular culture-enhanced instructional method, the recommendations to community colleges and professors, especially those that are adjuncts, include more effective and expansive training in this teaching style, investment in setting up the popular culture media event, and exploration of the tools and resources needed to supplement traditional course materials and methods. The implications for students take into account their affinity of popular culture, discovery that serious learning can be enjoyable, and that this type of teaching method could increase community college business program enrollment and persistence.

The author of this paper proposes additional studies that reach beyond a single semester in order to measure the effect on the choice of becoming a business major, enrolling in additional business classes, and remaining in school beyond one semester. The hope is that future researchers conduct more empirical studies regarding the impact that alternative teaching styles have on community college students, and attempt to incorporate true experimental designs wherever possible.
References


Guy, T. C. (2007). Learning who we (and they) are: Popular culture as pedagogy. *New Directions for Adult and Continuing Education* (115), 15-23.


Appendixes
Appendix A: Pre- and post-semester questionnaire

Survey for Tom Passero: BUS 101 - eligible for $50 gift card drawing

OCID # ________________________________________________

Born 1980 or after: Yes ___ No ____

Indicate how you feel about each comment below by circling the appropriate initials:

SD = Strongly Disagree  D = Disagree  A = Agree  SA = Strongly Agree

Incorporating popular culture media (movies, films, cartoons, television shows, etc.) that are related to a business course:

… helps me to better understand the topic…… SD D A SA

… increases my interest to remain in or change to business as a major… SD D A SA

… increases my interest in taking additional business courses………… SD D A SA

… increases my overall level of satisfaction with the course………… SD D A SA

Instructors who use traditional lecture-based teaching methods (without using popular culture media):

… help me to better understand the topic…… SD D A SA

… increases my interest to remain in or change to business as a major… SD D A SA

… increase my interest in taking additional business courses……………… SD D A SA

… increase my overall level of satisfaction with the course……………… SD D A SA
Appendix B: Sample multiple-choice test questions

Bus 101 – Test 1 (CHS 1 – 4) – Total 75 Points – Passero

NAME_______________________    DATE_______________________

Identify the letter of the choice that best completes the statement or answers the question AND INDICATE THIS LETTER ON YOUR SCORE SHEET.

CHAPTER ONE

1. Any activity which seeks to earn a profit by providing a good or service is known as a(n):
   a) industry
   b) corporation
   c) business
   d) service

2. A country’s ________ refers their general well-being and satisfaction derived from a variety of factors including political freedom, safety, education, and a clean environment.
   a) currency
   b) quality of life
   c) gross national income
   d) social satisfaction index

3. The amount of goods and services people can buy with the money they have is called their:
   a) nominal income.
   b) consumer price index.
   c) profit margin.
   d) standard of living.

4. __________ refers to the amount of output generated with a given amount of input, e.g., number of pizzas produced per worker per hour.
   a) efficiency
   b) technology
   c) telecommuting
   d) productivity

5. Taxes and government regulations are part of the ________________ environment of business.
   a) economic and legal
   b) competitive
   c) social
   d) technological
BUS 101 Chapter 12 Labor Relations Activity
Questions about The Simpson’s episode “Last Exit to Springfield”

After reading Chapter 12 and viewing the episode, please answer each question completely. NOTE: YOU MAY COLLABORATE WITH OTHER STUDENTS!

1. In the flashback scene of Springfield 1909, name two events the hassled employee predicted would happen if employers continued to mistreat the “working man”.

2. Do you believe unions are serving the same purpose today as they did back in the early 1900’s? Why or why not?

3. What key benefit did Mr. Burns wish to take away from the nuclear plant union members? Name three other benefits that companies and unions usually negotiate.

4. Name two union tactics exercised in the episode. Name one other tactic that can be employed by unions and briefly discuss which one you think has the greatest impact?

5. Name two management tactics (at least one legal) exercised in the episode. Name one other tactic that can be employed by management and briefly discuss which one you think has the greatest impact?

6. Upon what condition would management return the union’s key benefit?
Appendix D: Sample activity for Control Groups – labor relations

BUS 101 Chapter 12 Labor Relations Activity
Questions about the IAMAW and Boeing article

After reading Chapter 12 and the article, please answer each question completely. NOTE: YOU MAY COLLABORATE WITH OTHER STUDENTS!

1. How many strikes have occurred between the IAMAW and Boeing since 1989, and in what year did the strike last the longest?

2. Name two other tactics that can be employed by unions and briefly discuss which one you think has the greatest impact.

3. Do you believe unions are serving the same purpose today as they did back in the early 1900’s? Why or why not?

4. Name two management tactics being used by Boeing, and one other management tactic from the lesson. Briefly discuss which one you think has the greatest impact.

5. Name four points of contention between management and labor in this disagreement, and indicate each side’s position for every contention.

<table>
<thead>
<tr>
<th>Contention</th>
<th>Boeing</th>
<th>Union</th>
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</table>

6. What jetliner-in-progress is being delayed by the strike, and (according to your articles) about how much profit does Boeing stand to lose?
Appendix E: Chapters, learning objectives, and corresponding media and/or activities for Treatment and Control Groups

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Learning Objectives</th>
<th>Treatment</th>
<th>Control</th>
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</thead>
<tbody>
<tr>
<td>Chapter 1: Taking Risks and Making Profits within the Dynamic Business Environment</td>
<td>Describe the relationship of businesses’ profit to risk assumption and discuss how businesses and nonprofit organizations add to the standard of living and quality of life for all.</td>
<td>Show Sloan Foundation Cartoon Yankee Doodit as illustrative example of business, profit, quality of life, standard of living, and factors of production.</td>
<td>Use Ford Co. as illustrative example of business, profit, quality of life, standard of living, and factors of production.</td>
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<tr>
<td>Chapter 2: Understanding How Economics Affects Business</td>
<td>Discuss the economic system of the United States, including the significance of key economic indicators (especially GDP), productivity, and the business cycle</td>
<td>Broadcast/perform Professor out of work rap song and explore impact of subject’s unemployment.</td>
<td>Hold general discussion on current regarding nation’s unemployment situation and its effects on people.</td>
</tr>
<tr>
<td>Chapter 3: Doing Business In Global Markets</td>
<td>Debate the advantages and disadvantages of trade protectionism. Evaluate the forces that affect trading in global markets.</td>
<td>Embed contemporary comic strips that deal with free trade, protectionism, etc. into PowerPoint slides. Show AMEX Seinfeld in UK commercial to illustrate USA and UK cultural differences. Show Simpson’s</td>
<td>Directed discussion about recent articles on embargos, World Bank, and WTO. Show Wal-Mart China entry tape and with prolonged instruction about forces.</td>
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<tr>
<td>Chapter 4: Demanding Ethical and Socially Responsible Behavior</td>
<td>markets to discuss the changing landscape of the global market and the issue of offshore outsourcing. <strong>outsourcing clip in India</strong> to illustrate its scope. Continue discussion with Wal-Mart and their suppliers’ need to outsource.</td>
<td>Discuss the changing landscape of the global market and the issue of offshore outsourcing. Continue discussion with Wal-Mart and their suppliers’ need to outsource.</td>
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<td>Chapter 5: How to Form a Business</td>
<td>Ask the three questions one should answer when faced with a potentially unethical action. Show clip from <em>Simpson’s TOMACCO episode OR Simpson’s SUGAR episode</em> and review the three question, and corporate responsibilities. Review recent articles of improper corporate behavior and review the three question, and corporate responsibilities.</td>
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<td>Compare the advantages and disadvantages of corporations, and summarize the differences between C corporations, S corporations, and limited liability companies. Show clip from <em>Executive Suite</em> and address questions about role of BOD. Review articles on CEO firings and address questions about role of BOD.</td>
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<td></td>
<td>Chapter 6: Entrepreneurship and Starting a Small Business</td>
<td>Ask the three questions one should answer when faced with a potentially unethical action. Show clip from <em>Simpson’s TOMACCO episode OR Simpson’s SUGAR episode</em> and review the three question, and corporate responsibilities. Review recent articles of improper corporate behavior and review the three question, and corporate responsibilities.</td>
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<td></td>
<td>Explain why people are willing to take the risks of entrepreneurship, list the attributes of successful entrepreneurs, and identify traits of the entrepreneurs and implications of a business plan. Review bios of well-known entrepreneurs and identify their attributes.</td>
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</table>
entrepreneurs, describe the benefits of entrepreneurial teams and intrapreneurs, and explain the growth of home-based and Web-based businesses

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<thead>
<tr>
<th>Chapter 7: Management and Leadership</th>
<th>Describe the four functions of management.</th>
<th>Distribute article on casinos and show excerpt from the movie Rain Man to illustrate the four functions of management.</th>
<th>Distribute Owens annual reports collateral and use Owens CC as model to illustrate the four functions of management.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chapter 8: Adapting Organizations to Today’s Markets</td>
<td>Explain how restructuring, organizational culture, and informal organizations can help businesses adapt to change</td>
<td>Show clip from <em>Animal House</em> initiation scene and discuss role of organizational culture.</td>
<td>Review Time-Warner/AOL or Chrysler/DBenz failed mergers and discuss role of organizational culture.</td>
</tr>
<tr>
<td>Chapter 10: Motivating Employees</td>
<td>Identify the levels of Maslow’s hierarchy of needs, and relate their importance to employee motivation</td>
<td>Show clip from The Dirty Dozen and identify theories of motivation associated with the soldiers and their lieutenant using question handout.</td>
<td>Provide extended discussions on concepts, using personal and organizational examples of various motivational models – also, Herzberg mini-case.</td>
</tr>
</tbody>
</table>

<p>| Identify the levels of Maslow’s hierarchy of needs, and relate their importance to employee motivation | Distinguish between motivators and hygiene factors identified by Herzberg | Differentiate among Theory X, Theory Y, and Theory Z |</p>
<table>
<thead>
<tr>
<th>Chapter 11: Human Resource Management: Finding and Keeping the Best Employees</th>
<th>Outline the six steps in selecting employees</th>
<th>Show Simpson’s Carl episode and identify interviewing techniques and the method of employee promotion.</th>
<th>Ask students about types of questions they received during an interview, and what type of criteria did your employer’s use to promote employees.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Describe the ways employees can move through a company: promotion, reassignment, termination, and retirement</td>
<td>Show The Office performance appraisal episode and compare manager’s techniques with those cited in the textbook.</td>
<td>Conduct directed discussion about companies who are leaders in performance management.</td>
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<td>Trace the six steps in appraising employee performance</td>
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<tr>
<td>Ch. 12: Dealing with Employee-Management Issues and</td>
<td>Outline the objectives of labor unions</td>
<td>Divide into teams and show entire Simpson’s Last Exit to Springfield episode. Answer questions on worksheet</td>
<td>Divide into teams and have them read articles of recent management – labor confrontations. Answer questions on</td>
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<tr>
<td></td>
<td>Describe the</td>
<td></td>
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<tr>
<td>Relationships</td>
<td>tactics used by labor and management during conflicts, and discuss the role of unions in the future</td>
<td>that address union objectives and union and management tactics.</td>
<td>worksheet that address union objectives and union and management tactics.</td>
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<td>Explain some of today’s controversial employee–management issues, such as executive compensation, pay equity, child care and elder care, drug testing, and violence in the workplace</td>
<td>Show excerpt from <em>North Country</em> and identify two types of sexual harassment.</td>
<td>Conduct “All he wanted was a date” case as either a direct discussion or team activity, and identify two types of sexual harassment.</td>
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<tr>
<td>Chapter 13: Marketing: Helping Buyers Buy</td>
<td>Explain how marketers meet the needs of the consumer market through market segmentation, relationship marketing, and the study of consumer behavior</td>
<td>Distribute various popular magazines and identify segments that each magazine is attempting to target.</td>
<td>Distribute various products and identify segments that each company’s product is attempting to target.</td>
</tr>
<tr>
<td>Chapter 14: Developing and Pricing Goods and Services</td>
<td>Describe the differences among a brand, a brand name, and a trademark, and explain the concepts of</td>
<td>Show excerpt from <em>Wayne’s World</em>, brand segment, and identify the brands and how they make themselves distinct.</td>
<td>Exhibit several props with brands and ask how they make themselves distinct.</td>
</tr>
<tr>
<td>Chapter 15: Distributing Products</td>
<td>Give examples of how intermediaries perform the six marketing utilities</td>
<td>Show excerpt from Big, and identify the type of marketing intermediary (retailer), what type of retailer, its characteristics. And the types of utility it provides.</td>
<td>Ask the type of retailer students recently patronized, what type of retailer and why, and what utilities were being served.</td>
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<td>Chapter 16: Using Effective Promotions</td>
<td>Define promotion and list the four traditional tools that make up the promotion mix</td>
<td>Show various CLIO award commercials from various media and identify the type and advantages/disadvantages of that media.</td>
<td>Show sample commercials from various media and identify the type and advantages/disadvantages of that media.</td>
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<tr>
<td>Chapter 17: Understanding Accounting and Financial Information</td>
<td>Define and explain the different areas of the accounting profession</td>
<td>Show excerpts from The Smartest Guys in the Room and highlight Arthur Anderson’s ties to Enron. Discuss their role as a public accountant and the introduction of Sarbanes-Oxley.</td>
<td>Discuss the types of accounting, especially the role of a public accountant, and indicated the need for government oversight (i.e. Sarbanes-Oxley) to prevent accounting disasters like Enron and WorldCom.</td>
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<tr>
<td>Chapter 18 - 19: Financial Management &amp; Using Securities Markets for Financing and Investing Opportunities</td>
<td>Explain how the major financial statements differ.</td>
<td>Discuss the balance sheet financial statement up until Owner’s Equity, then re-broadcast Yankee Doodit excerpt, and focus post discussion on the concepts of profit, dividends, stock investment, and retained earnings.</td>
<td>Discuss the balance sheet financial statement up until Owner’s Equity, then focus on how a typical business recognizes a profit, provides stockholders with dividends, and shovels retained earnings back into their business.</td>
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<tr>
<td>Chapter 20: Money, Financial Institutions, and the Federal Reserve</td>
<td>Describe the various stock exchanges where securities are traded</td>
<td>Show excerpt from Wall Street and identify potential Security &amp; Exchange Commission (SEC) violations (e.g., insider trading)</td>
<td>Distribute article on Martha Stewart insider trading indictment and discuss the actions she took that warranted the SEC filing.</td>
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<td></td>
<td>Explain what money is and how its value is determined.</td>
<td>Display coinage and currency, discuss the five characteristics of money, and relate them.</td>
<td>Display coinage and currency, discuss the five characteristics of money, and relate them.</td>
</tr>
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</table>
Appendix F: Select MC Test questions and crosstabs

Crosstabs for MC Test 1, Q67:

A(n) ________-based ethics code emphasizes the prevention of unlawful behavior by increasing control and penalizing wrongdoers.

a) legal
b) corporate responsibility
c) compliance
d) integrity

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<th>Residual</th>
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<tr>
<td>Total</td>
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</table>
Crosstabs for MC Test 1, Q68:

A(n) ________-based ethics code defines corporate values; creates a supportive environment, and, stresses shared accountability among employees.

a) Social
b) corporate responsibility
c) compliance
d) integrity

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</table>
Crosstabs for MC Test 2, Q53:

At Lifeline Pharmaceuticals, highly regarded research personnel rely on top management to provide strategic direction. Beyond that, researchers work on their own to develop new drugs to satisfy customer needs and company profit objectives. Middle management at Lifeline practice _____________.

a) free-rein leadership.

b) consultative leadership.

c) projectory leadership.

d) autocratic leadership.

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<th>Teaching Method</th>
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Crosstabs for MC Test 5, Q2:

The Sarbanes-Oxley Act:

a) Set national requirement for becoming a practicing CPA

b) Restricts the types of nonaudit services auditing firms (e.g., E&Y, PriceWaterhouse) can provide audit clients

c) Dealt with accounting issues relevant to NAFTA members

d) Mandated the use of international accounting standards

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