

5-2010

Assessing the Effectiveness of Public Speaking Instruction on Students Cognitive Learning, Skill Development, and Communication Apprehension

Gilberto A. Castillo
University of Texas-Pan American

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ASSESSING THE EFFECTIVENESS OF PUBLIC SPEAKING
INSTRUCTION ON STUDENTS' COGNITIVE LEARNING,
SKILL DEVELOPMENT, AND COMMUNICATION APPREHENSION

A Thesis

by

GILBERTO A. CASTILLO

Submitted to the Graduate School of
The University of Texas-Pan American
In partial fulfillment of the requirements for the degree of

MASTER OF ARTS

May 2010

Major Subject: Communication

ASSESSING THE EFFECTIVENESS OF PUBLIC SPEAKING
INSTRUCTION ON STUDENTS' COGNITIVE LEARNING,
SKILL DEVELOPMENT, AND COMMUNICATION APPREHENSION

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GILBERTO A. CASTILLO

COMMITTEE MEMBERS

Dr. Timothy P. Mottet
Chair of Committee

Dr. Yanrong Chang
Committee Member

Dr. Jessica Raley
Committee Member

May 2010

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ABSTRACT

Castillo, Gilberto A., Assessing the Effectiveness of Public Speaking Instruction on Students' Cognitive Learning, Skill Development, and Communication Apprehension.

Master of Arts (MA), May, 2010, 87 pp., 1 figure, references, 118 titles.

The purpose of this study is to assess the effectiveness of public speaking instruction on students' cognitive learning, skill development, and communication apprehension. Participants in this study included 140 undergraduate students at a university in the Southwestern United States. Hypotheses and research questions focused on determining whether public speaking instruction makes a difference for students who receive instruction as opposed to students who do not on three learning outcomes: cognitive, behavioral, and affective. Results of the study are discussed. Conclusions, limitations, and topics for further research are addressed.

ACKNOWLEDGEMENTS

I would like to acknowledge and graciously thank the members of my thesis committee: To Dr. Timothy Mottet, for being a truly exceptional mentor who has helped, encouraged, and guided me throughout my journey at The University of Texas-Pan American; to Dr. Yanrong Chang, who has supported me throughout this amazing journey and has provided great feedback; to Dr. Jessica Raley, for being a great mentor and friend who has motivated me to continue my education. I would also like to acknowledge the Department of Communication's supportive and caring faculty and staff, each of whom have made this experience wonderful.

I would also like to thank my loving and supportive family and friends: To my parents, Gilberto Castillo who inspired me to never give up when times seemed overwhelming, and Alicia Castillo who loves and supports me unconditionally. She, along with my father and I have been through difficult times and our bond has helped us overcome many obstacles. This thesis is dedicated to them.

TABLE OF CONTENTS

	Page
ABSTRACT.....	iii
ACKNOWLEDGEMENTS.....	iv
TABLE OF CONTENTS.....	v
CHAPTER I. INTRODUCTION.....	1
The Need for Public Speaking Instruction.....	2
Public Speaking Skills, Knowledge, and Affect in the Workplace.....	3
Accountability of University to Produce Results.....	5
Gaps in the Research Literature.....	6
CHAPTER II. REVIEW OF LITERATURE.....	10
Claim I: Public Speaking Courses and the Liberal Arts.....	11
Claim II: Accountability and Assessment Practices.....	18
Claim III: Gaps in the Research Literature.....	27
Claim IV: Bloom’s Taxonomy of Learning.....	30
CHAPTER III. METHODOLOGY.....	39
Participants.....	39
Research Design.....	40
Procedures.....	40
Assessment Instruments.....	44
Data Analysis.....	48

CHAPTER IV. RESULTS.....	49
Assessing the Immediate Effects of Public Speaking Instruction.....	50
Assessing the Longevity of Public Speaking Instruction Effects.....	51
Relationship between Cognitive, Behavioral, and Affective Learning.....	53
Research Questions.....	54
CHAPTER V. DISCUSSION.....	57
Implications.....	60
Limitations and Direction for Future Research.....	63
REFERENCES.....	67
APPENDIX.....	76
BIOGRAPHICAL SKETCH.....	87

CHAPTER I

INTRODUCTION

There has been substantial interest among researchers in predicting academic success (Rubin, Rubin, & Jordan, 1997). Researchers have investigated whether success can be a result of skills instruction or changes to a person's communication dispositions, such as communication apprehension, shyness, or willingness to communicate that are tempered through communication treatment interventions. In conjunction with assessing instruction, specifically public speaking instruction, an assessment movement has begun to take shape in pressuring institutions of higher education to measure student learning (Lederman & Redden, 2007). This movement is helping citizens know whether the money they are funding institutions of higher education is being put to good use.

There is evidence that suggests the instruction students receive makes a difference (Rubin, Rubin, & Jordan, 1997). In another study by Rubin, Welch, and Buerkel (1995), high school students' communication skills improved over a semester particularly in areas where they received instruction. Research also suggests that the instruction students receive in a public speaking course makes a difference in students' communication apprehension. Kelly, Duran, and Stewart (1990) found that the skills training students received lessened their communication apprehension or their anxiety when talking to

another person. Ellis (1995) also found significant decreases in apprehension and increases in competence for college students during a semester.

Though these studies suggest that public speaking instruction positively affects student learning outcomes, few studies have assessed the effects that public speaking instruction has on the three domains of learning: cognitive, behavioral, and affective. The cognitive domain of learning refers to recalling information. The behavioral domain of learning is being able to perform a skill. The affective domain refers to a feeling of acceptance or rejection towards something. The purpose of this study is to assess the effectiveness of public speaking instruction on students' knowledge acquisition (cognitive), public speaking performance (behavioral), and communication apprehension (affect) in a controlled experimental assessment study.

This study is warranted for the following reasons. First, there is a need for students to receive public speaking instruction. Second, public speaking instruction provides students with the knowledge and skills necessary to advance professionally and successfully in their careers. Third, there is pressure on institutions of higher education to assess whether public speaking instruction produces positive results. Fourth, there is a gap in the research literature regarding the assessment of public speaking instruction. The following section more thoroughly describes each of these warrants.

The Need for Public Speaking Instruction

Courses in oral communication skill development set the all-important academic and skill foundation for students entering post-secondary education. First, this foundation is set during students' first year at a university; the assignments in other courses such as general education courses, courses for students' major or minor, and additional

communication courses can be used to develop students' communication competencies (Kramer & Hinton, 1996). If this is done, faculty who teach advanced courses can strengthen students' communication competencies rather than having to re-teach them resulting in less time devoted to teaching content of their own courses.

Second, recent research also suggests that there is a need for communication training at the undergraduate level. According to Boyer (1987), the ability to write and speak as well as read and listen with comprehension are fundamentals for students to succeed in college. All of the skills students learn in their specific areas of study could be useless if they do not have the ability to communicate competently (Donofrio & Davis, 1997).

Third, public speaking instruction helps develop civility. Being able to speak publicly prepares one for leadership and service to a community (Pellegrini, 1934). It can also prepare one for the duties of citizenship. Providing positive service to the community allows for effective change so that city councils can manage problems efficiently and successfully.

Importance of Public Speaking Skills, Knowledge, and Affect in the Workplace

Public speaking is generally thought of as being an instrument of power over others for the achievement of personal goals (Pellegirni, 1934). Students who come out of college seeking careers can use the public speaking knowledge acquired based on the instruction they received to their advantage. In order to succeed personally and professionally, students coming out of college must be able to sell themselves and their abilities. Public speaking skills are an asset that can be liquidated in terms of dollars and cents.

Educators in the Communication discipline have suggested that some courses should prepare students with public speaking skills in the workplace (Hanna, 1978; Sorensen & Pearson, 1980). Students are unlikely to receive communication training after college; consequently, it is necessary that they receive communication course work while in college (Sorensen & Pearson, 1980). At many universities, basic public speaking is one of the fundamental courses. It is a course that reaches students with varied academic and career goals. Based on this, it is important for public speaking courses to prepare students with work-related public speaking skills.

Studies have shown the significance of communication in the workplace (Curtis, Winsor & Stephens, 1989). For example, listening is considered to be at the top of the list of skills to acquire in order for students to succeed in their careers (Willmington, 1989). In conjunction with being skillful in public speaking, knowledge and affect pertaining to public speaking can be a big asset when trying to separate yourself from others when searching for a career. According to DiSalvo (1980), listening, writing, oral reporting, persuading, interpersonal, and small group problem solving are vital communication skills for entry-level positions. By being knowledgeable in those different areas, you are able to help others on the job rather than having to hire someone from the outside to do training and consulting. In addition to being knowledgeable in public speaking, if you have learned to cope with public speaking apprehension, you are able to help others cope with it in the workplace by explaining to them that it is normal to have anxiety (McCroskey & Beatty, 2000). If students do not receive public speaking instruction, their chances of advancing professionally and successfully in society can be reduced compared to students who do have these competencies.

Accountability of Universities to Produce Results

According to Lederman and Redden (2007), accrediting officials have heard the message from policy makers and the public that they demand more evidence that colleges are truly educating students, and it is up to higher education institutions to show evidence. One way of doing this is by assessing learning outcomes.

There has been an assessment movement that has cemented itself in United States higher education (Jaschik, 2009). However, according to a study conducted in 2009 by the National Institute for Learning Outcomes Assessment, which is a new research organization that is trying to endorse improved use of assessment methods and provide information about what colleges are actually doing, not many colleges use information gathered from assessing learning outcomes to change practices for the benefit of students' learning. The report was based on survey responses from sample colleges and universities from across the United States. Approximately 53 percent of provosts from 1,580 colleges and universities provided the answers to the survey. The report highly insists that faculty and presidents at different institutions take assessment seriously and not just use it as a way of being accountable but use it as a system for improvement to occur.

According to George Kuh, as cited in Hoover (2009), colleges and universities have plenty of assessment tools; however, they must learn to use them more effectively. There is plenty of data to be analyzed, but there is uncertainty about that data being transferred in a way that improves teaching practices. He also suggests that few institutions are spending enough on assessment in terms of analyzing data by experts in assessment to provide a synthesized picture of what exactly is going on at higher education institutions. In the Communication discipline, as well as other disciplines,

educators and administrators are beginning to feel pressured to respond to challenges associated with accountability (Morreale, 1994). There are concerns for reliable and valid evaluation and measurement of students' communication competencies and their ability to perform orally.

Gaps in the Research Literature

The studies listed in Figure 1 (next page) were gathered using the search engine Communication and Mass Media Complete. It is an online database that provides studies in areas related to communication and mass media. A total of six studies that measured the effects of public speaking instruction on student learning outcomes were yielded. The search terms used to identify included: public speaking instruction, effectiveness, and assessment.

Every study was assessed using the following criteria:

1. Were three learning outcomes assessed: Cognitive, Behavioral, and Affective?
2. What research design was used? (Survey or Experiment)
3. Was a control group used?
4. Is the research current? (post 2005)

The chart lists the gaps in research that the studies failed to address such as assessing student cognitive learning (knowledge of public speaking), behavioral learning (skill development), and student affect (communication apprehension).

<p>Figure 1</p> <p>Citation</p>	<p>Purpose of Study</p>	<p>Research Gap</p>
<p>Amato, P. (1964). A comparative study of programmed instruction and videotaped lectures as part of a course in public speaking. <i>Speech Monographs</i>, 31, 461-466.</p>	<p>Determine that there is no significant difference in the amount of learning based on different teaching methods and efficiency of learning as measured by the time required</p>	<ul style="list-style-type: none"> • Did not assess entire semester • Did not measure the behavioral domain (assessment of students' public speaking skills based only on public speaking instruction) • Not current
<p>McCroskey, J., & Lashbrook, W. (1970). The effect of various methods of employing videotaped television playback in a course in public speaking. <i>Speech Teacher</i>, 19, 199-205.</p>	<p>Determine whether students who viewed video playback of their public speaking presentations, received instruction, and peer criticism will meet the goals of the course rather than those who do not view playback</p>	<ul style="list-style-type: none"> • Did not assess entire semester • Did not measure the cognitive domain (exam grades) based only on public speaking instruction • Did not measure the behavioral domain (assessment of public speaking skills) • Not current
<p>Cronin, M., & Grice, G. (1994). The effects of interactive video instruction in coping with speech fright. <i>Communication Education</i>, 43, 42-53.</p>	<p>Determine whether students in the IVI (Interactive Video Instruction) and LLV (Lecture/Linear Videotape) groups will have higher cognitive test scores and reduction in speech fright than students in a control group</p>	<ul style="list-style-type: none"> • Did not measure students' behavioral domain (assessment of public speaking skills based only on public speaking instruction) • Not current
<p>Mino, M., & Butler, M. (1997). A traditional lecture approach versus a collaborative approach: A comparison of student performance outcomes. <i>Communication Research Reports</i>, 14, 493-507.</p>	<p>Determine whether collaborative instructional approach improves the quality of student performances on written exams and students' public speaking performances compared to a traditional lecture approach</p>	<ul style="list-style-type: none"> • Same instructor used for both the treatment and control group (instructor bias) • Did not measure students' affect (communication apprehension) • Not current

<p>Rubin, B. R., Rubin, M. A., & Jordan, F.F. (1997). Effects of instruction on communication apprehension and communication competence. <i>Communication Education, 46</i>, 308-318.</p>	<p>Assess how classroom instruction might result in changes in students' communication competence (CC) and communication apprehension (CA)</p>	<ul style="list-style-type: none"> • Measured students' perceptions of how communicatively competent they are • Did not measure students cognitive learning (exam) • No control group • Not current
<p>Benoit, W., & Benoit, P. (2006). Comparing traditional and web-assisted communication instruction. <i>Conference Papers -- International Communication Association</i></p>	<p>Compare the effects of traditional versus web-assisted instruction in a public speaking course on students' speech quality, exam grades, student satisfaction, communication apprehension, attitude towards course, and instructor evaluation</p>	<ul style="list-style-type: none"> • Compared traditional public instruction to web assisted instruction (primary focus was not traditional public speaking instruction) • Control group did not consist of students with no training

Below is a summary of the gaps in research.

- Some did not assess each of the domains of learning.
- Some did not have a control group
- Assessment was not done on the entire semester.
- Most of the research is not current.

Based on the lack of research related to the effects of public speaking instruction on the three learning domains, this study will look at the effects public speaking instruction on student learning outcomes by assessing student cognitive learning (exam), behavior (public speaking skills), and student affect (communication apprehension).

Summary

This chapter has presented an introduction to claims that warrant this study. Within the following chapters, this thesis will exhibit evidence that warrants this study, as well as provide structured hypotheses and research questions.

CHAPTER II

REVIEW OF LITERATURE

The core argument that is presented in this thesis is that there is a lack of research assessing whether the public speaking instruction college students receive positively effects learning outcomes. The previous chapter revealed the reasons as to why this study is warranted. Within this chapter, an in-depth evaluation of the evidence that supports the claims for why the study will be conducted will be reviewed through the existing literature in this field. Within this chapter, the following four claims will serve as a guide for the present argument and will be supported with relevant research literature.

Claim 1: Public speaking courses have been a staple of the Liberal Arts.

Claim 2: There is a growing need for accountability in institutions of higher education.

Claim 3: There is a gap in the research literature where few studies have assessed the effectiveness of public speaking instruction on student learning outcomes.

Claim 4: Institutions of higher education are conceptualizing learning outcomes through Bloom's taxonomy of learning.

Claim I: Public speaking courses have been part of the Liberal Arts Education.

This domain will present literature that explains the history and importance of the public speaking course, the different ways it is taught, as well as how communication apprehension affects student learning in the public speaking course, and the different treatments that have been developed to reduce anxiety.

The Public Speaking Course

The art of speaking effectively, also known as rhetoric, has roots that dated back to ancient Greece (Bok, 2006). During that time, oratory in ancient Greece was an important part of civic life and one that leaders had to master. Public speaking was also imperative to undergraduate education in colonial America (Bok, 2006). Near the end of the nineteenth century, public speaking received fresh intellectual energy from psychologists interested in using scientific methods to explore the impact of the spoken word on audiences.

The popularity of the public speaking course in communication continues to grow, further cementing it as a staple of the Communication discipline (Hunt, Novak, Semlak, & Meyer, 2005). In the last 20 years, more and more colleges in the United States have been handed the intimidating mission to establish a basic course in Communication as an integral part of the general education curriculum. In the past 25 years, undergraduate enrollments in the basic public speaking course have quickly increased, most of it based on pressure from alumni and complaints from employers about poor communication skills from students who graduate (Bok, 2006).

The public speaking course has an essential role in undergraduate instruction (Gibson & Hayes, 1980). According to Morreale, Hanna, Berko, and Gibson (1999), the

public speaking course in college serves primarily as a foundation class for Communication majors and core liberal arts for others. One of the reasons this is done is that it prepares students with work-related public speaking skills. According to Cohen (1994), the Communication discipline has been associated with developing public speaking skills in students. By teaching a basic course incorporating fundamental communication competencies during students' first year in college, students will be more able to practice appropriate skills and receive feedback from trained faculty for several courses, regardless of major (Hugenberg & Moyer, 1997).

Recently, communication and teaching organizations support the need for communication skills training (Lewis & Schaps, 1995). There is evidence suggesting that the communication experiences students have in high school predicts their GPAs in college (Power & Collier, 1990). Students who receive public speaking instruction and practice communication skills throughout elementary, secondary, and post-secondary education are able to refine their knowledge and ability to speak publicly. (Dwyer, Carlson, & Dalby, 2003).

According to a survey done by Gibson, Hanna, and Huddleson (1985), they found that when teaching a public speaking course, instructors combine "theory," which consists of lecture, discussion, lecture-discussion, exams and "performance," which is defined as students overtly involved in delivering speeches, debating, dialogue, etc. There have been numerous suggestions for how to teach public speaking. There has been debate whether the public speaking course should be taught as it is, which emphasizes developing presentations, or as a hybrid course, or using an interactive approach. According to Kramer and Hinton (1996), over the last three decades, the basic public

communication speaking course has followed one or two formats, either a public speaking course that emphasizes the creation and development of public presentations, or a hybrid course that combines intrapersonal, interpersonal, group, and public communication. Both formats have been shown to accomplish the goal of improving various dimensions of students' communication competence. For example, Morreale, Hackman, and Neer (1995) found that there was a significant drop in students' communication apprehension and an increase in self-esteem as a result of taking a public speaking course. Communication apprehension, specifically public speaking apprehension, has become an area of concern for instructors to help students reduce their anxiety.

Public Speaking and Communication Apprehension

“Communication apprehension” (CA) is a broad-based fear or anxiety associated with either real or anticipated communication with another person or persons (McCroskey, 1976). A person who is highly communication apprehensive expects punishment from his/her communication style and often has negative experiences. People who experience CA do not like talking with others and will go to great lengths to avoid communication (McCroskey, 1976). If a situation forces people with CA to talk with others, generally they will feel uncomfortable, nervous, and embarrassed and will appear to be shy. According to McCroskey (1976), 10-20 percent of the American population suffers from extreme CA.

There are four dimensions to CA: interpersonal, meeting, group, and public. Interpersonal CA is the degree to which a person feels fear or anxiety about the act of communicating with someone or the anticipation of communication occurring with

another person. Meeting and group CA is the level of fear or anxiety a person has regarding real or anticipated communication with a group of people. Public CA is the level of fear or anxiety regarding speaking in a formal situation. For example, presenting an informative speech to a group of people would be public communication (Wrench, Brogan, McCroskey, & Jowi, 2008). This study will only focus on public CA.

Studies have shown that there are two types of CA: state and trait. Hewes and Haight (1980) refer to *trait* as an enduring personality characteristic that goes across situations and tends to be stable. According to McCroskey (1983), “trait-like” CA is an invariant characteristic of a person, such as eye color and height. Once adulthood is reached, true traits of an individual are not subject to change. Research has shown that trait-like behaviors are caused by inheriting them at birth or the environment we are raised in. However, there is a belief that CA is a *state*, or context-based. Depending on the circumstances of a situation, a person may experience CA based on the other person’s communication style. A *state* is a feeling that is more situational and is far less permanent and much more episodic (McCroskey, 1982). This study will help determine whether there will be a significant difference in students’ public speaking apprehension between students who have received formal instruction in public speaking and those who have not received instruction.

Public Speaking Apprehension

Public speaking anxiety (PSA) is a specific type of communication-based anxiety that causes individuals to go through physiological arousal such as increased heart rate, negative self-focused cognitions, and/or behavioral concomitants when they are informed that they will be delivering a presentation or actually delivering a presentation (Daly,

McCroskey, Ayers, Hopf, & Ayers, 1997). Individuals with high levels of PSA can result in not being fully prepared to deliver a speech (Daly, Vangelisti, & Weber, 1995) which can negatively affect performance (Beatty & Behnke, 1991).

The negative effects of PSA have been well established in communication research (Dwyer & Fus, 1999). Research suggests that students with high PSA become either anxiety-conditioned or even traumatized from having to take a public speaking course, causing them to drop the course (McCroskey, 1977). There have been numerous studies that have suggested that students who have high PSA suffer academically with lower grades and lower evaluations from instructors (Allen, 1984; McCroskey, 1977; Richmond & McCroskey, 1995). According to McCroskey, Booth-Butterfield, and Payne (1989), students who had high PSA achieved lower GPAs and were more likely to drop out of schools rather than students with low PSA.

If communication skills are not taught before entering college, students may have high PSA and could even influence students' decisions to earn a college degree (Ericson & Gardener, 1992; McCroskey, Booth-Butterfield, & Payne, 1989). It is likely that if communication anxiety is not addressed in secondary education, CA can have a long lasting negative influence on students' lives (Dwyer, Carlson, & Dalbey, 2003).

Public Speaking Anxiety Treatments

Public speaking anxiety and its treatment have been concern for scholars and educators for quite some time (Hayworth, 1939; Robinson, 1959). According to several early studies that examined how to manage PSA, the teaching suggestions, classroom activities, and general guidelines for the public speaking course were primarily focused on (e.g., Bryngelson, 1942; Henrikson, 1943; Menchhofer, 1938). Those studies have

provided a foundation for new treatments to be developed: systematic desensitization (SD), cognitive modification (CM), and skills training (ST). These methods are designed mostly for individuals who experience high PSA (Duff, Levine, Beatty, Woolbright, & Park, 2007).

System desensitization attempts to alter the negative and unconscious relationship between an aversive stimuli, in this case public speaking, and anxiety (Brodie, 2009). This procedure starts by teaching relaxation methods (mediation, progressive, progressive muscle relaxation). When individuals are relaxed, they are asked to imagine a series of public speaking situations. They are provided situations that are in order from least to most likely to incite an anxious response. When the individual is able to relax in one situation, he/she is introduced to the next scenario in the hierarchy. Systematic desensitization has been proven to be successful in reducing PSA in the short term as well as long-term (McCroskey, 1972; Paul, 1966). It has the capability to be administered to undergraduate students enrolled in the public speaking course by instructors who have minimal training.

Cognitive modification suggests that PSA stems from individuals having negative cognitions about public speaking (Allen et. al., 1989; Ayers, 1988, Study 2; Hopf & Ayers, 1992). This process seeks to replace negative views of public speaking with positive views of public speaking and his/her own effectiveness as a public speaker. Cognitive modification generally follows three steps. The first step involves talking about certain fears about public speaking. Second, any negative self-statements that the individual has are discussed. Third, a trained therapist explains how the beliefs are irrational and introduces a coping statement which can be used while delivering a speech.

It is suggested that individuals with high trait PSA benefit greatly from CM (Ayers & Hopf, 1985).

Skills Training (ST) refers to methods aimed to develop speaking behaviors (Kelly, 1997). Skills training oriented programs attempt to teach skills such as organization, vocal and nonverbal delivery and topic selection when preparing for a speech (Hopf & Ayers, 1992; Watson, 1983; Whitworth & Cochran, 1996). Supporters of ST argue that teaching those skills can lessen the ambiguity of a public speaking situation by providing knowledge and techniques that are essential to an effective speech (Whitworth & Cochran, 1996). According to Behnke and Sawyer (2004), ST taught in a basic public speaking course works to adjust speech anxiety. However, ST generally does not directly address the anxiety individuals bring with them to the classroom. Skills training is believed to be the least effective for reducing PSA compared to SD and CM (Allen, 1989; Allen, et. al., 1989).

There are some researchers who propose that being enrolled in the basic public speaking course is adequate to *cause* anxiety (Motley, 1990; Motley & Molloy, 1994). Other research suggests that individuals with high trait CA are more likely to withdraw from a public speaking course (Rubin, et. Al, 1997). However, based on the reviews of traditional remediation methods, PSA can be reduced (Brodie, 2009). The most effective treatment to reduce PSA is when SD, CM, and ST are combined. The order in which these treatments would occur would be to begin with either SD or CM and conclude with ST. However, Dwyer (2000) suggests that the combination of SD, CM, and ST and how they are ordered depends on an individual's personality. In a recent study by Finn, Sawyer, and Schrodt (2009), it was found that PSA is likely reduced over the course of a

semester in a public speaking class because students are continually exposed to the same audience which can cause them to become more relaxed. Although these treatments can be adapted for the classroom, instructors of the public speaking course must be aware of individual and situational constraints that may lessen the effectiveness of PSA treatment, as well as the unintended consequences of treatment.

This section has discussed how the public speaking course has become a staple of the Liberal Arts. Even though the course has become an important part in institutions of higher of education, more assessment has been called for in terms of measuring its effectiveness on student learning. The next section will discuss the pressure that institutions of higher education have felt in terms of assessment.

Claim II: There is a growing need of accountability in education. This need for accountability is being met through a variety of assessment practices.

This domain will present the past and current literature that explains the different ways assessment is used in the Communication discipline as well as other academic disciplines.

The Communication discipline in relation to Education in general, has found itself to be in a position of immediately searching for suitable practical responses to outside pressure for assessment (Goulden, 1992). State and institutional agencies are asking that different disciplines develop policies, instrumentation, and procedures to see if school programs and students are producing positive results (Backlund, Hay, Harper, & Williams, 1989; Gray, 1989). Schools are being asked to develop assessment criteria in order to judge the success of students (Christ, 1994).

The evaluation and assessment of competency in public speaking has been of vital interest to scholars for centuries (Morreale, 1994). As early as 300 B.C., Aristotle proposed models for public oratory (Cooper, 1932). Sophists would evaluate and provide feedback to students regarding their public performance when they would teach on the hills of ancient Greece. Since then, the evaluation of public speech has become a major concern to communication scholars throughout the 20th century. For example, Hayworth (1939) became concerned with the assessment aspects of public speaking. Norvelle (1947) narrowed assessment to comparing certain types of college students and Fotheringham (1956) created a technique for assessing effectiveness in public speaking classes. Johnson and Szczupakiewicz (1987) examined whether the public speaking course is effectively providing students with work-related public speaking skills.

Recent scholarly literature suggests the degree of communication competence and its assessment has become central to communication instruction (Backlund, 1990; Pearson & Daniels, 1988; Quianthy, 1990; Rubin, 1990; Spitzberg, 1988, 1993; Spitzberg & Cupach, 1989). Other research suggests that oral communication skills and competency are related to academic and professional success (Curtis, Winsor, & Stephens, 1989; Rubin & Graham, 1988; Rubin, Graham, & Mignerey, 1990).

Beebe, Mottet, and Roach (2004) reviewed a three-stage model that focuses on assessment as a systematic process that recycles itself. In the first stage of the model, learning objectives are developed. In order to assess learning outcomes, objectives must first be developed. Learning objectives describe the specific outcomes instructors are looking for at the end of a class session. For example, students being able to recall information about the different parts to a persuasive speech could be a learning objective

they must meet. In the second stage, learning outcomes are measured by collecting data from students. For example, at the end of a class, an instructor who asks for student feedback on how the class can be improved could be a way to collect data from students. In the third stage, based on the data collected, instructors begin to interpret the information and decide what changes need to be made to accommodate students. This three-stage model is an example of how the assessment process works.

This section has explained how institutions of higher education are being pressured to assess student learning. The next section will focus on how there are a variety of assessment designs to measure student learning.

Assessment Designs

There are a variety of assessment designs that allow assessors to get a complete picture of learning outcomes (Campbell & Stanley, 1963). In the pre/post-test assessment design, assessment instruments are distributed to students before instruction takes place to find out what they know (cognitive), can do (behavioral), and feel (affective), before being exposed to instruction. The same assessment instruments are distributed again following the instruction students receive to see if there was a change in knowledge, behaviors, and/or attitudes. An example of this design is shown below.

G1 O1 X O2

G = Group O = Test X = Instruction

The expected outcome would be for the O2 scores to be statistically different from the O1 scores. A major limitation to this design is that if there is a difference in the post-test (O2) scores, instructors would not know for sure if the course caused the difference. Maturation and testing effects could have been the factors that influenced the

post-test scores. A way to avoid these factors could be to add a control group to the assessment design.

Another assessment design is the pre/post-test with a control group. This design mirrors the pre/post-test design; however, in this design, a control group has been added. The group consists of similar students who will not be exposed to the treatment, or in this case will not receive instruction. An example of this design is shown below.

G1 O1 X O2

G2 O1 O2

G = Group O = Test X = Instruction

This design has two benefits: (1) adding a control group helps to eliminate the maturation threat and (2) the pre-test allows trainers to ensure that the two groups (G1 and G2, the control group) are starting off at the same level. Even though the pre-post design with control group is a more robust measuring design, both groups still receive the pre-test and may be equally sensitized to the pre-test effect. To help eliminate the pre-test effect while still having the control group would be to use the post-test only with control group design.

The next assessment design is the post-test only with a control group. In this design, both the maturation and testing effects are controlled by distributing a post-test to the students who were enrolled in a public speaking course as well as students who did not receive formal instruction in public speaking. An example of this design is depicted below. For the purpose of this study, the post-test only with a control group design will be used.

G1	X	O1
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G2		O1
----	--	----

G = Group O = Test X = Training Program

This design allows the instructor to control for the maturation and pre-test effects. However, a limitation to this design is that there is no way to determine if the two groups were at the same level to begin with. Along with the variety of assessment designs that are used to measure learning outcomes, there are also other methods that instructors use in the classroom to measure student learning outcomes, which will be reviewed below.

Criterion Referenced versus Norm Referenced

Criterion-referenced and norm-referenced measurement approaches have established loyal followings in academia (Burrell, Rotatori, Day, & Ellis, 1990). Both criterion-referenced and norm-referenced each has their benefits and flaws. Criterion-referenced assessment has proven to be very useful where standards for acceptable behaviors are established (Hambleton & Rogers, 1991). In the Communication discipline, criterion-referenced measurement has been successfully applied to assessing communicative disorders (McCauley, 1996).

Criterion-referenced measurement or criterion objectives not only verify what a student must do, but how well the student must be able to do on a task before it is considered acceptable (Scannell & Tracy, 1975). An example of criterion-referenced measurement or grading is to determine whether students have mastered predetermined specific skills that serve as criteria and provide useful information to students about the extent of their progress towards achieving a stated instructional goal. Since criterion-referenced measurements generally involve specific items and criterion or cut scores

against which a student's performance is compared, the student's progress is determined by achieving or exceeding the performance standard (Dwyer, 1996).

Criterion-referenced measurement can be helpful when determining the specific skills that a student has mastered. The operational definitions for a specific criterion are mostly developed "locally." For example, the amount of gestures used when presenting an informative speech to reach a criterion could be different with the basic course director or the instructor for the class. Some of the limitations to criterion-referenced measurement are that objectives or student learning outcomes are locally developed and can only be compared to one another which results in producing less meaningful norms, or standards. When using criterion-referenced measurement, it is important to specify what skills have to be mastered, the exact outcomes that constitute mastery and the instrumentation that will be employed. Criterion-referenced measurement also needs consensus among faculty regarding the appropriateness of criterion-referenced grading components.

Norm-referencing is the process of comparing a student's performance to the class or school average (Scannell & Tracy, 1975). Norm-referenced measurement offers information on a student's progress while compared to a clearly defined population. Norm-referenced measurement is believed to be a reliable and valid measure of student achievement and has been a part of American students' school experiences since the mid-1900's (Taylor & Walton, 1997). In the public speaking course, an example of a norm-referenced group for a given performance on a test could be students who have taken that class in the last two years. It is vital for the normative sample to be sufficiently described in terms of relevant demographic characteristics so that a meaningful interpretation of a

score can be made. Constructing norms produces several types of scores such as percentages, ratios, and quotients (Brown, 1976). Instructors usually prepare tables used to convert raw scores to standard scores and others use computer programs to convert scores when using norm-referenced measurement.

The process of norm-referenced measurement is recommended when it seems meaningful to compare the performance of a certain student to a well-defined reference group. Repeated use of norm-referenced tests has accumulated negative impact, especially for low achievers, which can lead to decreased student motivation. Norm-referenced testing has been called into question since more instructors are gearing their classes towards performance-based systems.

Performance Assessment

The term *performance assessment* refers to student artifacts, such as written compositions, and observable behaviors such as being able to play an instrument (Gary, 1989; McCaleb, 1989; Stiggins & Bridgeford, 1984). The term *product/performance assessment* refers to assessment in oral communication of simultaneously judging two different but similar behavioral categories.

The first behavior category includes creative behaviors that produce the product, specifically the verbal content of communication. The second category of behavior includes enactive behaviors that encompass the “performance” aspect to public speaking, specifically the nonverbal elements of communication (Wilson, Scherbarth, Brickell, Mayo, & Paul, 1988). In the context of public speaking, *product/performance assessment* refers to students being responsible for and graded on the product composed, a speech, and the actual presentation.

One of the first decisions instructors make while planning communication assessment is whether to focus on evaluating either the “parts” and/or the “whole” of the communication episode (Goulden, 1992). The purpose of a specific assessment often dictates whether an instructor scores a limited set of skills or makes a broad judgment of the entire product/performance. For example, instructors who evaluate the “parts” of a communication episode often choose a part emphasis for formative evaluations of a specific unit. Instructors who evaluate the “whole” of a communication episode may require only a general impression of a student’s skill level. There are different assessment methods used to assess *product/performance*, as will be reviewed next.

Behavioral Assessment

There are four terms that meet the needs of educators engaged in assessing speech communication: atomistic, analytic, holistic, and general impression (Goulden, 1992). There are two terms that are frequently used in oral communication assessment, *atomistic* and *holistic*. According to Scherer (1985), atomistic assessment refers to an evaluator who quantifies “the smallest units of discourse found in a piece of writing” (p.4). For example, when a teacher is evaluating student presentations, the teacher could count and mark the number of times gestures were used, the number of sources cited, and the number of times the student says “uh.” Atomistic instruments include grids or charts that are used to record the frequency of traits.

Of the two terms, holistic is probably the most widely known and used (Goulden, 1992). According to Quianthy (1990), holistic assessment refers to “judging the whole performance of a student” and a “collection of distinct skills.” Taylor (1987) explains that the holistic method refers to a certain procedure used to score oral communication. Rubin

(1985), on the other hand, uses the term “holistic procedure” to identify scoring that has an overall holistic goal but is the result of adding all sub scores based on the evaluator’s “general impressions.”

The analytic method applied to speech communication assessment is when the rater judges the individual traits a student exhibits in both the product and performance (Goulden, 1992). The analytic method is similar to the atomistic method; however, the analytic method uses judgment while the atomistic method uses counting. According to Scherer (1985), the rater sums the original sub scores from the individual traits to produce an overall score for either the product or the performance. Some of the analytic instruments used are variations of multi-trait rating scale instruments. Some of the early public speaking forms (Stevens, 1928), including many instruments that are used today such as the CCAI (Communication Competency Assessment Instrument) and ACT COMP (American College Testing College Outcomes Measures Program), consist of scale items that describe the speaker, traits of a speech, and the performance.

The general impression method relies on the rater’s general impression of the whole/product performance (Goulden, 1992). The major distinction between the general impression method and the holistic method is that the holistic method uses criteria for scoring that has been made official by a group decision or by being recorded and disseminated. In the general impression method, the criteria for scoring are different and exclusive to each rater. For example, if there is contest in the class being held to see who gives the best informative speech, the instructor uses a blank sheet of paper to write down comments and a rank/or rating for each student. If there are a group of instructors rating

the performance of each student, each instructor has different opinion as to which elements are the most important for forming a successful whole presentation.

This section has provided an explanation of a variety of assessment designs that educators use to measure student learning. The next section will focus on the gaps in the research literature on some of the studies that assessed the effectiveness of public speaking instruction.

Claim III: Few studies have assessed the effectiveness of public speaking instruction.

This domain will present the research that has been done regarding the effectiveness of public speaking instruction.

Gaps in the Research Literature

This section will discuss the gaps in research of the six studies in Figure 1 (Refer to Chapter I). Each study will be examined to see what the studies did not do that this study will accomplish.

The first study done by Amato (1964) was to determine that there is no significant difference in the amount of learning based on different instruction methods and the efficiency of learning measured by the time required. Some of the gaps in research that study failed to address were that the author did not assess the entire semester. In addition, the students' public speaking skills development based only on public speaking instruction was not measured.

In the second study, McCroskey and Lashbrook (1970) sought to determine that students who viewed video playback of their public speaking presentations, had instruction and criticism from their colleagues would meet the goals of the course as opposed to students who did not receive the same treatment. There were three areas that

the study failed to address. First, the study did not assess the entire semester of instruction that students received. Rather, only five weeks of instruction out of a ten-week term was selected. Second, the study did not measure student cognitive learning based on public speaking instruction. Third, students' public speaking skills were not assessed. Student affect was only measured based on the treatment students received viewing their video-taped playback of their public presentations.

Cronin and Grice (1994) sought to determine that students in the Interactive Video Instruction (IVI) and Lecture Linear Videotape (LLV) will achieve significantly higher cognitive test scores following exposure to the treatment for four weeks than students in the control group. The authors also sought to determine that students will achieve a significantly greater reduction in speech fright after being exposed to treatment for four weeks than students in the control group. Interactive Video Instruction allows students to interact via computer with an assortment of videotape, videodisc, film, slide, and graphic material and is designed to provide individualized, self-paced instruction. Lecture Linear Videotape follows a similar format. Though the study did address student cognitive and behavioral learning, students' development of public speaking skills were not assessed based on public speaking instruction.

Mino and Butler (1997) examined whether a collaborative instructional approach improves the quality of students' performances on written exams and students' public speaking skills compared to a traditional lecture approach. According to Mino and Butler (1995a), a collaborative approach relies on using audio-taped lectures that present theory, thus, spending less class time engaging students in active cooperative learning. The collaborative instructional approach helps to create a classroom setting conducive to

learning; it arouses and directs students' interests, experience, and energy, and improves oral communication skills. The study suggests that the lecture format does not provide students that many chances to clarify misunderstanding. Some of weaknesses of the study were that the same instructor was used in both the treatment group and control group which could lead to having instructor bias towards one format over the other. The second weakness was that the authors failed to assess students' communication apprehension.

Rubin, Rubin, and Jordan (1997) assessed how the instruction that students received might cause changes in students' communication competence and communication apprehension. To measure students' communication competence, the SPCC (Self-Perception of Communication Competence) was administered. According to McCroskey and McCroskey (1988), self-report measures such as the SPCC can be very useful if we want to know how communicatively competent a person thinks he/she is. However, since the SPCC asks students how competent they are in four settings (dyadic, group, meeting, and public), there was not an objective measurement such as an exam that asked questions about public speaking. Also, a control group was not used to compare scores.

In the last study, Benoit and Benoit (2006) compared the effects of traditional instruction versus the effects of web-assisted instruction in a public speaking course on students' speech quality, exam grades, student satisfaction, communication apprehension, attitude towards the course, and instructor evaluation. Even though it seems that the three domains of learning were measured based on instruction students received, the primary focus was not on traditional public speaking instruction. If the study had only focused on traditional lecture format rather than including another variable, in this case web-assisted

instruction, it could have supported the theory that public speaking instruction does positively affect student learning outcomes.

This section has discussed how some of the studies did not assess the three domains of learning. The next section will help establish the importance of the three domains of learning, as conceptualized by Benjamin Bloom and his colleagues.

Claim IV: Bloom's taxonomy of learning is one way that institutions of higher education are conceptualizing learning outcomes that guide assessment practices.

This domain will present literature that explains Bloom's taxonomy of learning and how institutions use it to assess learning outcomes.

Origin of the Taxonomy

Benjamin Bloom is mostly recognized for his leadership in the development of the *Taxonomy of Educational Objectives, Handbook 1: The Cognitive Domain* (Guskey, 2006). When it was published in 1965, the Taxonomy received little attention from researchers and practitioners. There were some who believed that it was not very important. It was not until nearly a decade later that it caught the attention of educators at all levels and served as a foundation for curriculum-restructuring efforts throughout the United States and the entire world.

Bloom's *Taxonomy* came from work he did in the University of Chicago's Board of Examinations Office and from the influence of Ralph W. Tyler (Guskey, 2006). In 1942, Tyler developed a model based on curriculum development and then extended to program evaluation. He stressed that a pivotal first step of the model is clarification of a program or activity's goals. If goals are clarified, more effort can be focused on the extent to which goals are achieved. Even though educators started clarifying goals and

objectives for student learning, the goals and objectives differed tremendously. A majority of them required students to recall factual information. There were others that required students to participate in more reasoning, problem solving, and other mental processes. Even though these differences were known, there was no way of ordering or classifying them (Guskey, 2006). As a result, Bloom and his colleagues set out to create a procedure to order or classify goals or objectives by developing the *Taxonomy*. Their goal was to develop a conceptual framework that would convey a sense of order to the variation in cognitive difficulty of the goals and objectives of education.

The *Taxonomy* had a huge influence on education as well as educators (Guskey, 2006). One of the most important effects of the *Taxonomy* was by providing a landscape of education goals that were more extensive than might otherwise could have been considered. The *Taxonomy* demonstrated to educators that learning outcomes could extend beyond recalling basic information and have more complex goals.

Bloom and his colleagues found that most of the objectives used by teachers in institutions of higher education could be placed in one of the three domains or classifications (Krathwohl, Bloom, & Masia, 1964); namely cognitive, behavioral, and affective (McCroskey, 1967).

Cognitive Domain

Bloom and his colleagues wrote the first taxonomy in 1956 which dealt with the cognitive domain. For example, in the Communication discipline, being able to recall definitions of communication variables, nonverbal communication norms in different cultures, and the historical events of the evolving broadcast media are cognitive learning.

Cognitive objectives stress recalling or reproducing something that has already been learned or combining new ideas and materials (Bloom, 1956). Other cognitive objectives involve solving tasks where the individual has to determine the basic problem and then reorder it with provided material or combine it with ideas, methods, or procedures that have been learned before. Most educational objectives from institutions in higher education fall into this domain (Krathwohl, Bloom, & Masia, 1964).

There are different methods to assess student cognitive learning. Questions that are related to evaluation are to determine the value of something based on criteria that has been learned (Bloom, 1956). Another method or question that is commonly used to assess cognitive learning is to have students create something new based on information or principles that have been previously learned which is known as synthesizing. When students analyze information, information that has been learned is broken down into different parts. Students can also apply information learned to solve a problem or to relate information learned to a different context. When students summarize information in their own words to verify that information was understood, they are comprehending content which is another way to assess student cognitive learning (Bloom, 1956). At the lowest level, the cognitive domain focuses on recalling specific facts.

For the purpose of this study, the cognitive learning domain refers to how much a person knows and understands about public speaking. For example, knowing the different kinds of speeches such as informative and persuasive presentations and being able to differentiate them on a multiple choice exam. This study will determine whether students who have received public speaking instruction receive over the course of a semester will score significantly higher than those who did not receive formal instruction on an exam.

Behavioral Domain

The behavioral domain is also known as the domain of Communication skill. According to the Krathwohl, Bloom, and Masia (1964), psychomotor, or behavioral objectives stress some muscular or motor skill, some manipulation of either material or objects, or an act that requires a neuromuscular co-ordination.

When developing behavioral objectives, there are two types: informational and planning (Kibler, Barker, & Cegala, 1970). The main difference between these types of objectives is the amount of information communicated. Informational objectives are mostly used by curriculum designers to express their instructional intentions to others. There are three major components to informational objectives (Brenman, 1958; Oliver, 1960; Buys, Carlson, Compton, & Frank, 1968). One component is who will be performing the behavior. The second component is the description of the behavior that will be performed. The last component is the end result of the behavior performed.

The second type of behavioral objective is a planning objective. This type of objective is used to let students know what behaviors they will be able to perform after receiving instruction about a specific unit. For example, an instructor who is about to teach students about effective ways to deliver a speech such as using a appropriate physical behaviors (eye contact, gestures, etc.) and informing students they will be able to do those behaviors after they have been taught. The use of behavioral objectives allows assessors to measure criteria objectively (Johnson, 1971). These types of objectives require teachers to specifically state the actual behavior that will be performed to demonstrate a mastery of the objective, the relevant conditions of how the behavior will

be performed, and the benchmark that will be used to evaluate the success of the product or performance.

In the context of this study, the behavioral domain refers to students' demonstrating effective presentational speaking skills. Out of the six studies included in Figure 1, three measured the behavior domain or the assessment of students' public speaking skills based on instruction. This study will determine whether the instruction students receive in a basic public speaking course over the course of a semester versus students who have not received any instruction will impact their skill development.

Affective Domain

A few years after the first *Taxonomy*, Bloom and his colleagues created the second taxonomy which dealt with the affective domain. The affective domain or affective objectives refer to emphasizing a feeling tone, an emotion, or a degree of acceptance or rejection (Krathwohl, Bloom, & Masia, 1964). There are a variety of affective objectives. They range from having simple attention to selected phenomena to complex but internally consistent qualities of either character or consciences. Bloom and his colleagues found that there were a large number of affective objectives expressed as interests, attitudes, appreciations, values, and emotional sets or biases.

Affective objectives related to interests describe behavior ranging from students' being aware that a given phenomenon exists, attending and responding to a phenomenon, avidly seeking out the phenomenon, and being absorbed in it (Krathwohl, Bloom, & Masia, 1964). Affective objectives related to attitude describe that a student is willing to admit he/she has a positive feeling toward something. At the other extreme, that student will go out of his/her way to express liking toward the phenomenon and communicate it

to others. A person who has “appreciation” towards something may display behavior of being aware of a phenomenon and is able to perceive it. Affective adjustment refers to behaviors that appear in a social interaction between two people or it could also refer to a person’s whole outlook on life.

Student affect has become an important outcome variable for instructional communication researchers for at least three decades (Richmond & Gorham, 1996). Affective learning supplements both cognitive and behavioral learning in most learning environments (Kratwohl, Bloom, & Masia, 1964). Unfortunately, there are few teachers who create a learning environment that produces positive affect. According to McCroskey (1992), affect in the instructional environment is concerned with students’ attitudes, beliefs, and values related to the knowledge and behavioral skills that have obtained. Communication apprehension falls under affective learning because the knowledge and skills students acquire in a public speaking course can influence their attitudes, beliefs, and value towards their ability and confidence when it comes to public speaking.

For this study, the public speaking apprehension, which is a form of communication apprehension that students may experience about delivering a speech in front of an audience, will be assessed to see if public speaking instruction reduces students’ public speaking apprehension.

Cognitive, Behavioral, and Affective Learning Retention

According to Ritchie and Karge (1996), cognitive psychologists commonly agree that if information is going to be retained, particularly after a considerable amount of time after the information has been learned, it is important that students elaborate on the

material learned (Anderson, 1990; Gagne, 1985; Roehler & Duffy, 1984). The process of elaboration occurs when specific information is thought about and then a memory link is constructed between that piece of information and other related information held in long-term memory.

However, an obstacle for students to go through the elaboration process is the sheer wealth of information that is taught (Ritchie & Karge, 1996). When this happens, students do not have enough time to elaborate on the new material. Even if students have a strong aspiration to elaborate and learn new material will find it difficult to recall information. It is important that instructors are aware of the amount of information taught does not allow students to connect that information to information they already know.

Rationale for the Hypotheses and Research Questions

The purpose of this study is to assess the effectiveness of public speaking instruction on students' learning outcomes: cognitive, behavioral, and affective in a controlled experimental assessment study. There is research suggesting that public speaking instruction does make a difference (Rubin, Rubin, & Jordan, 1997). In order to assess whether public speaking instruction does make a difference, a control group will be used consisting of students who have not had any formal instruction in public speaking and a treatment group consisting of students who are enrolled in a public speaking class. Therefore, the following hypotheses were generated:

H1a: Scores will be significantly higher on an exam for those who are trained versus untrained.

H1b: Scores on students' public speaking skills will be significantly higher for those who are trained versus untrained.

H1c: Scores on a public speaking apprehension assessment instrument will be significantly lower for those who are trained versus untrained.

In order to assess whether public speaking instruction makes a difference on whether the knowledge that students gain from public speaking class, their skill development, and their anxiety level pertaining to public speaking lasts over time (Ritchie & Karge, 1996), the following hypotheses were generated:

H2a: Scores will be significantly higher on an exam for those who are trained only at the college level but at different times of their college career (before the Fall of 2009, Fall of 2009, Spring 2010) versus untrained.

H2b: Scores on students' public speaking skills will be significantly higher for those who are trained only at the college level but at different times of their college career (before the Fall of 2009, Fall of 2009, Spring 2010) versus untrained.

H2c: Scores will be significantly lower on a public speaking apprehension assessment instrument for those who are trained only at the college level but at different times of their college career (before the Fall of 2009, Fall of 2009, Spring 2010) versus untrained.

The three domains of learning are being assessed in this study because they provide the foundation for which most institutions of higher education assess student learning outcomes. If students' public speaking knowledge acquisition increases, their skill development is enhanced as a result of retention in knowledge, and their anxiety in public speaking has been reduced, then learning has been enhanced because each domain

complements each other (Bloom, 1956; Krathwohl, Bloom, & Masia, 1964). Therefore, the following hypothesis has been generated:

H3: Scores on the exam and public speaking skills will be positively correlated, but inversely correlated with public speaking apprehension.

The following research question was asked to determine if there are significant differences between students who received formal instruction in public speaking at the high school level compared to students who were currently enrolled in a class at the time the study was conducted. The purpose of this was to determine whether students who took a class in high school can further enhance their knowledge of public speaking, skill development, and reduction in public speaking anxiety by also taking a class at the college level.

RQ1: Are there significant differences between students who received instruction in high school as compared to those who received instruction at the time the study was conducted on the cognitive, behavioral, and affective domains of learning?

The following research question was asked to determine if there are statistically significant differences between the eight speaking codes of students who are trained to deliver a speech compared to those who are not trained.

RQ2: Are there statistically significant differences between the eight speaking codes of students who are trained and untrained?

The last two chapters have examined the basis for this study. This next chapter will explain how the hypotheses and research questions will be tested. The description of participants, research design, and assessment instruments will be discussed.

CHAPTER III

METHODOLOGY

This chapter examines the methodology that was used to test the hypotheses and research questions. Specifically, this chapter will review participants, research design, procedures, and assessment instruments.

Participants

A convenience sample of 140 students was used for the study. The control group consisted of 23 male and female students who were and had not received any formal public speaking instruction university in the Southwestern part of the United States. The treatment group consisted of 117 male and female students who had received formal instruction in public speaking. Twenty-three percent (n=27) of those students only received formal instruction in high school, 15 percent (n=17) received instruction during the Fall 2009 semester, 21 percent (n=29) received instruction before the Fall 2009 semester while enrolled in college, and 32 percent (n=44) were enrolled in a public speaking class during the Spring 2010 semester. The sample was made up of 42 percent (n=59) male and 58 percent (n=81) female. Hispanics were a majority of the sample, accounting for 91 percent of the total sample.

Research Design

A post-test only experimental design was used to test the hypotheses. This design allows a researcher to conclude that any significant differences found are a result of the treatment group receiving a stimulus that the control did not receive. The strengths of this design are that it allows the researcher to control for maturation and pre-test effects. Maturation is a threat to internal validity because the participants could go through psychological or physiological changes over time that could affect the observed outcome (Singleton, Straits, & Straits, 1993). Pre-test effects refer to the possibility of an interaction between the pre-test and the manipulation. This means participants could be influenced on how they do on a pre-test if they have been exposed to a stimulus. Another major advantage to this design is that it is more economical by saving time. One weakness to this design is that there is no way to determine if both groups had the same knowledge and/or a skill before the study was conducted. Participants in both the treatment and control groups completed an exam to assess their knowledge of public speaking, delivered a persuasive presentation to assess their presentational skills, and completed a measure to assess their communication apprehension about public speaking during the Spring 2010 semester to see whether there was a significant difference in scores between the students who received instruction and students who had no formal public speaking instruction.

Procedures

Recruitment

The study was conducted between February 17, 2010 and April 22, 2010 in the Communication Research Lab of the university. To recruit participants who had no

formal instruction in public speaking, students from different majors (Biology, Political Science) were asked to participate by the principal research investigator. With the permission of the faculty, the investigator went to several entry-level university general education courses and recruited students with no high school or college instruction in public speaking. A sign-up sheet was passed out for students to sign up for a day and time that was best for them. Appointments were set up to have students come in groups of 8 to complete all three assessments. Appointment times ranged from being in the afternoon to the evening. Emails were sent out the day before students were to show up to remind them that they signed up to participate.

Participants in the treatment group were recruited mid-way through the semester by the principal research investigator announcing in several sections of the Presentational Speaking course that students could participate in the study. The reason students were recruited mid-way through the semester was because by mid-semester, the students had completed three speech presentations. Students were also provided extra credit for their participation. A sign-up sheet was passed out to students to sign up for a day and time that was best for him/her.

Participants were not told beforehand as to what they would be doing until they showed up physically. They were not provided with a review handout for the exam or told they would be delivering a persuasive presentation. This was done so that both groups would have the opportunity of studying the content before hand, otherwise the validity of the results would be threatened.

Administration and Protocols

Once participants arrived, they were instructed by the principal investigator to sit in the lab. Once all participants arrived, the principal investigator briefed them on the study without revealing the hypotheses. Second, participants were given a handout that detailed exactly what each of them would be doing:

1. Fill out a 13 item self-report questionnaire
2. Complete a 19 item multiple-choice exam
3. Deliver a 3-5 minute persuasive presentation on a topic of his/her choice

This order was chosen because if participants first delivered a speech, the anxiety triggered from that may have been reflected on how they filled out the six items measuring public speaking apprehension and their performance on the exam. The investigator next informed them that while delivering their speech, each participant would be recorded from one camera in the lab. After explaining what each participant would be doing, a consent form was passed out to participants to sign and to decide either to participate or not participate in the study.

First, participants had approximately five to ten minutes to fill out a 13 item self-report questionnaire that asked for their demographic information (Sex, Ethnicity, College Classification, etc.). The questionnaire also consisted of six items concerning feelings about public speaking from McCroskey's (1982) PRCA-24. Second, participants were instructed by the principal investigator to take the exam. Participants had 15 minutes to complete the exam. Third, once all participants completed the exam, they had 10 minutes to individually organize and outline a persuasive speech on a topic of their choice based on the following criteria:

- Select a topic that you can adapt to a small audience of college students
- Develop a 3-5 minute persuasive presentation with a clear thesis statement and organized using an Introduction, Body, Conclusion
- Support your main points with appropriate information
- Use appropriate language
- Use vocal variety (rate, pitch, and volume)
- Use appropriate pronunciation, grammar, and articulation
- Use nonverbal behaviors that support rather than detract from your verbal message

A persuasive speech was selected because at the time the study was conducted, the participants who were enrolled in a public speaking class had delivered three speeches, the last of which was a persuasive presentation. It was selected because it fit with the timeframe and research design of the study (post-test). Participants were provided with scratch paper and pen/pencils to write down an outline of their speech. Since they were not told before participating that they would be delivering a speech, participants were able to fabricate any statistics, sources, examples, or stories. Participants then voluntarily delivered their speeches one by one in front of each other. Participants could use their paper as an outline while delivering their speech. As each person presented, they were videotaped. After all the students delivered their speeches, the principal investigator thanked them for participating and notified them that they received extra credit.

Assessment Instruments

Public Speaking Knowledge Assessment

To assess students' knowledge of public speaking, a multiple-choice exam was developed consisting of questions regarding public speaking. Cognitive learning was assessed in the study because most educational objectives from higher education institutions fall into this domain (Krathwohl, Bloom, & Masia, 1964).

The exam consisted of 19 multiple-choice items, with each question worth five points. The format for the exam was multiple-choice because multiple-choice exams can measure verbal achievement, such as knowledge of dates and names, understanding of concepts and principles, and the application of those concepts and principles (Scannell & Tracy, 1975). The exam was developed using test items from exams in the Presentational Speaking course. The items were selected and edited based on the intended student learning outcomes from the standardized syllabus in the presentational speaking course. Content validity was achieved by making sure there are items for each of the objectives.

- Craft audience-centered speeches using the writing process
- Explain the different types of speeches and how they differ
- Organize their thoughts and clarify them for others
- Use their body and voice expressively to enhance their speaking

To ensure face validity, the exam was passed out to instructors of the presentational speaking course to make sure that each item had been taught in class. For this study, the exam yielded a mean score of $M = 68.6$, $SD = 13.3$, Range = 5-95. Midpoint = 47.5, and $\alpha = .51$. Refer to Appendix B for a copy of this instrument.

Public Speaking Skill Assessment

To assess students' public speaking skills, students delivered a 3-5 minute persuasive presentation and were assessed by two graduate students who had been trained to code public speaking presentations. Public speaking skill was assessed in the study because the use of behavioral objectives allows assessors to measure criteria objectively (Johnson, 1971). The instrument used was the *The Competent Speaker* speech evaluation form. The instrument was developed to provide a statistically reliable and valid tool for assessment of public speaking performance (Morreale, 1994). It was developed by the National Communication Association's Committee on Assessment and Testing.

The instrument was designed to evaluate public speaking skills. The Competent Speaker form focuses on assessing verbal and nonverbal behaviors involved in competent public speaking rather than the motivation to engage in public speaking or knowledge about it. It can be used in different contexts. It can be used to evaluate informative and persuasive speeches in class or to generate assessment data for accountability-related objectives of academic institutions (Morreale, 1994). *The Competent Speaker* is made up of eight public speaking competencies, four of which are related to preparation and the other four to delivery. The four competencies related to preparation are: topic selection, communicating the thesis/specific purpose clearly, providing appropriate supporting material, and using an appropriate organizational pattern. The four competencies related to delivery are: using appropriate language, using vocal variety to heighten and maintain interest, using appropriate grammar, pronunciation, and articulation of words, and using physical behaviors that support, rather than distract from the verbal message. Each

competency has specific performance standards and criteria provided for three levels of performance: unsatisfactory, satisfactory, and excellent.

High and moderately high coefficients were yielded testing interrater reliability. Professionals in speech communication generated an Ebel's coefficient of .92, graduate teaching assistants who used the form generated a Cronbach's alpha of .76 and speech instructors at a community college generated a Cronbach coefficient of .84. (Morreale, 1994). In this study, inter-rater reliability was assessed will be assessed using the percentage of agreement method. The benchmark for internal reliability was .75 which is six out of eight matches between the two coders.

Selection and Training of Coders

The two graduate students selected for coding the presentations were experienced in assessing presentations. Together, they had four years of experience in assessing presentations. The graduate students were trained how to evaluate presentations using The Competent Speaker evaluation form. Before using the instrument, they thoroughly studied the instrument and the eight competencies included in it. The graduate students became familiar with the descriptions of unsatisfactory, satisfactory, and excellent levels of performance for each competency. After they became familiar with each competency and criteria, they practiced using the form with videotaped presentations that represent each level of competency. Each graduate student graded the presentations individually. In order for each graduate student to assess the speeches, each speech was burned on to a DVD because they were not in the lab while participants presented their speeches. Each participant was assigned a letter or number so that the questionnaire, exam, and

presentation could all be linked together and participants' identity could remain anonymous.

For this study, the total score that each rater gave to each participant was averaged together so that each participant had one score. In this study, the instrument yielded a mean score of $M = 17.4$, $SD = 2.8$, Range = 8-24. Midpoint = 16. In this study, inter-rater reliability was assessed using the percentage of agreement method because we are able to see the level of agreement on how each participant did on each competency (Rubin, 1996). The benchmark of agreement is at .75. For this study, the benchmark of agreement yielded a .45. Refer to Appendix C for a copy of this instrument.

Public Speaking Apprehension Assessment

McCroskey's (1982) Personal Report of Communication Apprehension (PRCA-24) was used to assess the communication apprehension of participants toward public speaking. Only six of the 24 statements regarding feelings towards communicating with others in the public speaking context were used. The survey is scored on a Likert-type scale, anchored with 1 being "strongly agree" and 5 being "strongly disagree." Affective learning was assessed in the study because according to Richmond and Gorham (1996), student affect has become an important outcome variable for instructional communication researchers for the last few decades partly because affective learning enhances both cognitive and behavioral learning in the classroom (McCroskey, 1982).

The six items regarding public speaking CA from the PRCA-24 assess affective learning in the classroom by assessing students' anxiety when informed that they will be presenting in front of an audience and while presenting. According to Krathwohl, Bloom, and Masia (1964), the affective domain of learning includes objectives that emphasize a

feeling, emotion, or degree of acceptance or rejection. For this study, participants' self-reports of public speaking apprehension were used to assess their feeling or degree of acceptance or rejection towards public speaking, specifically whether they feel they can deliver a competent speech. Based on the instruction students receive and the knowledge they acquire about public speaking, students are able to learn how to deliver a speech which will then increase their confidence and reduce anxiety. According to Levine and McCroskey (1990), the six-item public speaking subscale generally produces reliability estimates in the range of .80-.85; construct, concurrent, discriminant, and predictive validity have all been demonstrated. In this study, the six items regarding public speaking apprehension yielded a $M = 17.4$, $SD = 2.8$, Range = 6-30, Midpoint = 18, and $\alpha .81$. Refer to Appendix A for a copy of this instrument.

Data Analysis

A one-way analysis of variance was used to test for the effects of public speaking instruction on public speaking knowledge, skill, and apprehension. A Pearson correlation will be used to test for relationships between the cognitive, behavioral, and affective domains of learning.

CHAPTER IV

RESULTS

This chapter presents the results for the seven one-tailed hypotheses and research questions for the seven one-tailed hypotheses and two research questions concerning the variables of public speaking instruction, students' knowledge acquisition (cognitive), public speaking performance (behavioral), and public speaking apprehension (affect).

The first set of hypotheses examine whether students in a current public speaking class should differentiate in learning outcomes when compared to students with no formal instruction in public speaking. The second set of hypotheses examines the long-term effects of public speaking instruction. Specifically, they examine whether students retain their knowledge, skill, and affect over time. The third hypothesis predicts that the cognitive and behavioral domains of learning are designed to complement one another but will be inversely related to affective learning. The first research question seeks to discover if there was significant difference between participants who received instruction at the high school level and those who enrolled in the class at the time the study was conducted. The second research question seeks to discover if there are differences in the eight public speaking competencies between those who were formally trained in public speaking and those with no training. This is one way to determine whether certain competencies are done more effectively than others as a result of formal instruction in public speaking.

Assessing the Immediate Effects of Public Speaking Instruction

The first set of hypotheses predicted the effectiveness of public speaking instruction between those who have not had any formal instruction in public speaking and those who were being formally trained at the time the study was conducted.

Hypothesis 1a predicted that participants who received formal instruction would score significantly higher on an exam compared to those who have not had any formal instruction. This hypothesis was not supported.

A one-way analysis of variance was used to test for the comparison of exam scores between the control and treatment groups. The control group consisted of participants who did not have any formal instruction in public speaking. The treatment group included participants who were enrolled in a public speaking class. Both groups served as the independent variable and exam scores served as the dependent variable. Results of the one-way ANOVA statistical test yielded a non-significant F ratio [$F(1,66) = 4.745, p > .01$]. Participants in the control group yielded a mean of 65.4 ($SD = 9.6$) while participants in the treatment group yielded a mean of 70.5 ($SD=14.0$).

Hypothesis 1b predicted that participants who received formal instruction would score significantly higher on public speaking skills compared to those who have not had any formal instruction. This hypothesis was supported.

A one-way analysis of variance was used to test for the comparison of skill between the control and treatment groups. The control group consisted of participants who did not have any formal instruction in public speaking. The treatment group included participants who were enrolled in a public speaking class. Both groups served as the independent variable and skill scores served as the dependent variable. Results of the

one-way ANOVA statistical test yielded a significant F ratio [$F(1,66) = 6.389, p < .01, \eta^2 = .09$]. Participants in the control group yielded a mean of 16.4 ($SD = 3.5$) while participants in the treatment group yielded a mean of 18.3 ($SD = 2.6$). Based on this analysis, nine percent of the variance in behavioral learning was attributable to formal instruction in public speaking.

Hypothesis 1c predicted that participants who received formal instruction would have significantly less public speaking apprehension (PSA) compared to those who have not had any formal instruction. This hypothesis was not supported.

A one-way analysis of variance was used to test for the comparison PSA scores between the control and treatment groups. The control group consisted of participants who did not have any formal instruction in public speaking. The treatment group included participants who were enrolled in a public speaking class. Both groups served as the independent variable and PSA scores served as the dependent variable. Results of the one-way ANOVA statistical test yielded a non-significant F ratio [$F(1,66) = .031, p > .01$]. Participants in the control group yielded a mean of 17.6 ($SD = 2.9$) while participants in the treatment group yielded a mean of 17.5 ($SD = 3.5$).

Assessing the Longevity of Public Speaking Instruction Effects

The second set of hypotheses predicted the effectiveness of public speaking instruction between those who have not had any formal instruction and those who have had instruction at the college level, but at different times throughout their college career. Hypothesis 2a predicted that all participants who received formal instruction in public speaking at one point in their college career would score significantly higher on an exam

compared to those who have not received any formal instruction. This hypothesis was not supported.

A one-way analysis of variance was used to test for the comparison of exam scores between the treatment group and control groups. The control group consisted of participants who did not have any formal public speaking instruction. The treatment group consisted of participants who were currently enrolled in a public speaking class, had taken a public speaking class in the Fall of 2009, or had taken a public speaking class before the Fall 2009 semester at the college level. The control and treatment groups served as the independent variable and exam scores served as the dependent variable. Results of the one-way ANOVA statistical test yielded a non-significant F ratio [$F(1,111) = 2.252, p > .01$]. Participants in the control group yielded a mean of 65.4 ($SD = 9.6$) on the exam while participants in the treatment group yielded a mean of 70.2 ($SD = 14.3$).

Hypothesis 2b predicted that all participants who received formal instruction in public speaking at one point in their college career would score significantly higher on skill as compared to those who have not received any formal instruction. This hypothesis was not supported.

A one-way analysis of variance was used to test for the comparison of skill scores between the treatment group and control groups. The control group consisted of participants who did not have any formal public speaking instruction. The treatment group consisted of participants who were currently enrolled in a public speaking class, had taken a public speaking class in the Fall of 2009, or had taken a public speaking class before the Fall 2009 semester at the college level. The control and treatment groups

served as the independent variable and skill scores served as the dependent variable. Results of the one-way ANOVA statistical test yielded a non-significant F ratio [$F(1,111) = 5.250, p > .01$]. Participants in the control group yielded a mean of 16.4 ($SD = 3.5$) on the exam while participants in the treatment group yielded a mean of 18.1 ($SD = 3.0$).

Hypothesis 2c predicted that all participants who received formal instruction in public speaking at one point in their college career would have significantly lower public speaking apprehension compared to those who have not received any formal instruction. This hypothesis was not supported.

A one-way analysis of variance was used to test for the comparison of public speaking apprehension scores between the treatment group and control groups. The control group consisted of participants who did not have any formal public speaking instruction. The treatment group consisted of participants who were currently enrolled in a public speaking class, had taken a public speaking class in the Fall of 2009, or had taken a public speaking class before the Fall 2009 semester at the college level. The control and treatment groups served as the independent variable and PSA scores served as the dependent variable. Results of the one-way ANOVA statistical test yielded a non-significant F ratio [$F(1,111) = 5.250, p > .01$]. Participants in the control group yielded a mean of 17.6 ($SD = 3.5$) on the exam while participants in the treatment group yielded a mean of 17.5 ($SD = 2.7$).

Relationship between Cognitive, Behavioral, and Affective Learning

Hypothesis 3 predicted that there would be a positive correlation between the exam and skill scores, and an inverse correlation with PSA scores. This hypothesis was

partially supported. A Pearson correlation yielded a significant correlation ($r = .36, p < .01$) between the exam and skill scores. However, no significance was found with PSA and exam scores ($r = .04, p > .01$) or skill scores ($r = .11, p > .01$).

Research Questions

The first research question seeks to discover if participants who took a class in high school can further enhance their knowledge of public speaking, skill development, and reduction in public speaking anxiety by also taking a class at the college level.

A one-way analysis of variance was used to test for the comparison of exam, skills, and PSA scores. Those who only receive instruction in high school and those who were enrolled in a public speaking class at the time the study was conducted served as the independent variable and their scores on the three assessments served as the dependent variable. Results of the one-way ANOVA statistical test yielded a non-significant F ratio for the exam [$F(1, 69) = 3.853, p > .01$]. Those who only had high school instruction yielded a mean of 66.3 ($SD = 12.0$) while those who were enrolled in the class at the college level at the time the study was conducted yielded a mean of 73.1 ($SD = 15.3$).

A one-way analysis of variance was used to test for the comparison of skill scores. Results of the one-way ANOVA statistical test yielded a significant F ratio [$F(1, 69) = 12.219, p < .01, \eta^2 = .15$]. Those who only had high school instruction yielded a mean of 15.8 ($SD = 12$) while those who were enrolled in the class at the college level at the time the study was conducted yielded a mean of 18.3 ($SD = 2.6$). Based on this analysis, 15 percent of the variance in skill scores was attributable to public speaking instruction at the college.

A one-way analysis of variance was used to test for the comparison of PSA scores. Results of the one-way ANOVA statistical test yielded a non-significant F ratio [$F(1, 69) = 1.240, p > .01$]. Those who only had high school instruction yielded a mean of 16.8 ($SD = 2.6$) while those who were enrolled in the class at the college level at the time the study was conducted yielded a mean of 17.5 ($SD = 2.6$).

The second research question seeks to discover if there were significant differences between the eight public speaking competencies between those who have not had any formal instruction in public speaking and those who had public speaking instruction at the college level (before Fall 2009, Fall 2009, Spring 2010). A one-way analysis of variance was used to test for statistical significance between the eight public speaking competencies. Since eight ANOVA tests were computed, the significance level $p < .01$ was used to determine statistical significance. This was done to prevent Type II error. Type II error refers to finding statistical significance when it should not be found. Based on the results, no significant differences were found between the eight public speaking competencies.

Summary of Results

The chapter has reviewed a number of important findings pertaining to the effectiveness of public speaking instruction on the three domains of learning. Results of the study partially confirmed the first set of hypotheses relating to the immediate effects that public speaking instruction has. There was no statistical significant difference in scores on the exam and PSA instruments. However, there was significant difference in scores for skill.

The second set of hypotheses were not supported. There was no significant difference in scores for the exam, skill, and PSA between those who have not had any training in public speaking and those who had instruction at different times in their college career. The third hypothesis predicted that there would be a positive correlation between scores on the exam and skill assessments, but an inverse relationship with PSA. This hypothesis was partially supported. There was a positive significant correlation between scores on the exam and skill assessment, but not a significant inverse correlation with PSA. This suggests that cognitive and behavioral learning are related.

The first question determined that there was significant difference found between those received instruction at the high school level and those who were currently enrolled in a class at the time the study was conducted for their skill assessment but not for exam and PSA. For the second research question, no significant differences were found between the eight public speaking competencies for those who were not trained versus those were.

CHAPTER V

DISCUSSION

The problem that this study is addressing is the lack of assessment that is being done on the effectiveness of instruction (Lederman & Redden, 2007). In addition, there is a gap in the research literature, namely, few studies have been done assessing the effectiveness of public speaking instruction in a controlled experimental study on the three domains of learning: cognitive, behavioral, and affective (Refer to Figure 1 in Chapter I). The purpose of this study was to assess the effectiveness of public speaking instruction on students' knowledge acquisition (cognitive), public speaking performance (behavioral), and public speaking apprehension (affect). The conclusion of this chapter will provide a summary of the entire study.

This study was warranted for the following reasons. First, there is a need for students to receive public speaking instruction (Donofrio & Davis, 1997). Second, public speaking instruction provides students with the knowledge and skills necessary to advance professionally and successfully in their careers (Curtis, Winsor & Stephens, 1989). Third, higher education institutions are feeling pressure from tax payers to assess whether instruction produces positive results, specifically public speaking instruction (Jaschik, 2009). Fourth, there is a gap in the research literature regarding the assessment of public speaking instruction.

Four conclusions were yielded from this study. The first conclusion is that formal instruction in public speaking is not effective in enhancing students' acquisition of knowledge. The second conclusion is that formal instruction in public speaking is effective in enhancing students' overall presentational speaking competencies. The third conclusion is that formal instruction in public speaking is not effective in reducing students' public speaking apprehension. The last conclusion is that there is a relationship with between cognitive and behavioral learning, but not with affective learning.

Cognitive Learning

The first conclusion yielded from this study is that formal instruction in public speaking is not effective in enhancing students' acquisition of knowledge. Although participants who were enrolled in a public speaking course at the time the study was conducted scored higher than those who had no training, the variation in scores was not attributable to instruction in public speaking. This could be due to the low internal reliability of the instrument meaning that there is too much error in the instrument.

Also, the variation in scores for participants who took a public speaking class at different times in their college career and those who were not trained was not attributable to instruction. This could have been attributed to the amount information that was taught. According to Ritchie and Karge (1996), if students do not have adequate time in connecting new information to information that has been learned, their degree of retention can be hindered. In determining whether knowledge can be enhanced by taking a public speaking class in high school and taking a class in college, the variation in scores was not attributable to instruction in public speaking.

Behavioral Learning

The second conclusion stemming from the study is that formal instruction in public speaking is immediately effective in enhancing students' overall presentational speaking skills. The variation in scores for participants who enrolled in a course at the time the study was conducted was attributable to instruction in public speaking. In this regard, public speaking instruction did make a difference. However, participants who had formal instruction in public speaking at different times in their college career did not display effective presentational skills. The data suggest that with the knowledge acquired about how to deliver a speech, participants did not successfully apply that knowledge into delivering an effective speech after a considerable amount of time elapsed since they were exposed to instruction.

In determining whether skills can be enhanced by first taking a public speaking class in high school and then again in college, instruction was effective. The 15 percent variation in scores suggests that skills can be further enhanced by being exposed to instruction at both the high school and college level. This is an important finding because it shows that degrees of instruction can enhance skills even further.

There were no significant differences found between the eight public speaking competencies for participants who were exposed to public speaking instruction at different times in their college career and those without any training. This suggests that there were no differences in how participants organized their speech, used vocal variety, or used physical behaviors as result of instruction.

Affective Learning

The third conclusion is that formal instruction is not effective in reducing students' public speaking apprehension. Even though participants who were enrolled in the public speaking class at the time the study was conducted reported less anxiety compared to those without any training, the variation in scores was not attributable to formal instruction in public speaking. In determining whether being exposed to high school instruction and instruction at the college level, the variation in scores was not attributable to instruction in public speaking. In addition, participants' variation in scores for those who were exposed to instruction at different times of their college career was not attributable to instruction in public speaking. This suggests that public speaking apprehension can be difficult to reduce as a result of instruction.

Relationship between Cognitive, Behavioral, and Affective Learning

The last conclusion is that there is relationship between cognitive learning (public speaking knowledge) and behavioral learning (skill), but not an inverse relationship with affective learning (public speaking apprehension). This suggests that as students' knowledge of public speaking increases, their skill level also increases. However, an inverse relationship was not found between students' public speaking apprehension on either their acquisition of knowledge or skill. This suggests that as students' public speaking knowledge and skill increase, their apprehension does not decrease.

Implications

A number of implications were yielded from this study. The following section focuses on public speaking apprehension, as well as the importance of assessment and instruction.

Implications for Public Speaking Apprehension and Instruction

There are studies that suggest PSA (public speaking apprehension) can be reduced as a result of instruction (Finn, Sawyer, & Schrodt, 2009). However, some argue that enrolling in the course causes a person's anxiety to increase rather than decrease (Motley & Molloy, 1994). This study has helped to add to the growing consensus that PSA is a trait that can be difficult to reduce, if at all possible. There are several treatments (System Desensitization, Cognitive Modification, and Skills Training) that have been proven to work to lessen PSA, but in order for those treatments to be fully effective, they would need to be altered and adapted for the classroom while also keeping in mind students' level of PSA. For example, skills training is technique that is highly suitable to use in the classroom because this is a technique that provides that students' with the knowledge and tools of how to deliver and effective speech. With instructors simply stating what outline to follow or what physical behaviors to use, the ambiguity that is left out can help students feel more confident about delivering a speech.

Though it seems these different behavioral therapy techniques are effective in reducing PSA, they seem only to be effective for a short period of time. For example, system desensitization has been shown to cause a 12 point reduction in completing the PRCA-24 (Personal Report of Communication Apprehension) (McCroskey & Beatty, 2000). However, the point decrease is less than the 15 percent of total range scores. This means that no matter how much therapy or instruction is done to lower PSA, or communication apprehension, it is something that can remain a part of a person's genetic system. One of the best ways instructors or educational systems can help students who have PSA would be by teaching people to help better understand each other (McCroskey

& Beatty, 2000). If this is done, people can identify what environment/situation is best for them based on their temperament. Assessing students' feedback and temperaments would greatly benefit the learning to not let students with PSA feel as though they need to change their behaviors (McCroskey & Beatty, 2000). Establishing an environment where it is normal to feel anxiety when delivering a speech would be ideal for instructors to apply in the classroom.

Implications for Higher Education Institutions

With the assessment movement growing stronger in United States higher education (Jaschik, 2009), it is important for colleges and universities to pay special attention to gather assessment data. This study helped show the importance of assessment and how the data gathered from it can help tax payers see that the instruction students receive is effective in enhancing public speaking skills. Institutions of higher education can use this data to make necessary curriculum changes or enhance teaching practices so that students can get the best education possible.

Based on the results of the study, the department of the university in which the study was conducted would find it valuable to step back and reevaluate the curriculum and how it is taught to determine if students are learning. Listening to students' concerns about what is working in the classroom and what not working as far as the content being taught and how it is taught would greatly benefit any department. This is especially important to enhance cognitive learning. Without assessment, more and more questions would be raised as to what exactly colleges and universities are doing with tax payer monies. The National Institute for Learning Outcomes Assessment is trying to promote the improved use of assessment methods and provide information about what colleges are

actually doing. This is the latest wave of accountability that institutions of higher education are getting prepared for all for the betterment of student learning.

Implications for Assessment Theory Development

This study has helped shed light on the degree of difficulty it takes to assess student learning. Even with the different assessment designs (pre-test/post-test, post-test only, etc.) (Campbell & Stanley, 1963), the use of norm and criterion referencing (Scannell & Tracy, 1975), and the use of Bloom's taxonomy of learning as a foundation for measuring student learning outcomes (Bloom, 1956; Krathwohl, Bloom, & Masia, 1964), assessment is an evolving process. Educators can attempt to control for any an all extraneous variables that could influence the results of the study and still manage to leave a handful out. It is important that assessment of instruction and student learning continue because educators and researchers can continue to improve upon previous studies. If this done, the likelihood of achieving optimal student learning can increase.

Limitations and Direction for Future Research

The results of this study have provided support for the instruction students receive, specifically public speaking instruction, having a positive effect on students' public speaking skill development. Even with the information gained from this study, there are a number of limitations this study came across.

First, the research design for this study (post-test only with a control group) did not allow the investigator to see if participants who trained versus untrained had the same level knowledge, skill, and anxiety in the beginning of the semester. Second, participants' motivation to either do their best or not put any effort on all three assessments could have

a negative effect on the results. Third, participants' anxiety could have overwhelmed them when they found out they were going to deliver a speech while being videotaped.

The first limitation of this study was the research design that was used. Even though a post-test design controls for maturation and pre-test effects, a pre/post test design would have been more helpful in determining the effect that public speaking instruction has on students by comparing their scores at the beginning and end of the semester. By determining the level of knowledge, skill, and anxiety without training and then comparing the difference scores after they have been trained would provide a gauge of the difference that instruction made.

The second limitation of this study was the motivation that students had when completing all three assessment instruments. For some participants, the ones who are highly motivated are more than likely to pay special attention to the questionnaire, completing the exam, and delivering a persuasive speech. The participants who are not motivated may just be completing the assessments for extra credit with little regard to how they do. To control for motivation, it would have been helpful to establish a certain score or criteria for students to meet on the exam and speech, that way more effort would be put into completing the assessments.

The third limitation is the anxiety that some of the participants felt when delivering their speeches. This was a threat to external reliability, specifically ecological validity. Since the environment that the study was conducted was a lab, participants' anxiety may have increased. If the study were done in a natural setting, such as a classroom, the results might have been different. Also, once participants were told that they would be asked to deliver a speech and that they would be videotaped, their anxiety

could have overwhelmed them because they had no prior knowledge that they would be asked to do deliver a speech, let alone be videotaped. Perhaps instead of being videotaped, the coders could have also been in the room to code presentations instead of watching the recorded speeches. Their level of anxiety might have influenced how participants did on the questionnaire and exam by not being entirely focused.

The fourth limitation of the study is the reliability of the exam and inter-rater reliability. Although the reliability of the exam was low ($\alpha = .51$), the exam appeared to have face and content validity. The exam measured what it was supposed to measure and covered the wide range in content pertaining to public speaking. In addition, the low reliability may have been attributed to the number of items. If there were more items, the reliability of the exam might have increased (Scannell & Tracey, 1975). The low inter-rater reliability might have been attributed to not monitoring the how the raters were coding the speeches. After noticing variation in scores for each speech between the raters, another training session could have been held. Although the inter-rater reliability may have been low, significant difference in scores for the speeches was still found. If inter-reliability was higher, the differentiation in scores might have been much clearer.

This thesis has provided rich information pertaining to the assessment of public speaking instruction. However, there is much left for further examination. Some suggestions for future research would be to use a pre/post test research design to track the effectiveness of public speaking instruction. Another suggestion would be to have relatively the same number of participants who have had no training in public speaking and those who have had instruction. In addition, the order of procedures, particularly the order in which participants completed the assessments could have been reordered so or

done on different days so that more time could be devoted to each assessment rather than having limited time complete all three. With said, the main purpose of determining whether public speaking instruction makes a difference has been met.

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APPENDIX A

APPENDIX A

Part I: Self-Report Questionnaire

Place a checkmark next to the item that best represents you.

Sex:

Female Male

Ethnicity:

Hispanic Anglo Black Asian Other

College Classification:

Freshman Sophomore Junior Senior I Don't Know

Are you pursuing a Major or Minor in Communication?

Major Minor No I Don't Know

Have you ever taken a public speaking class or a class where you received formal instruction in public speaking and made more than one presentation?

High School Yes No

College Yes No

If you took a public speaking class in college, was it during the Fall 2009 semester?

Yes No Before Fall 2009

The next six statements concern feelings about public speaking. Please indicate the degree to which each statement applies to you by marking whether you: Strongly Disagree = 1; Disagree = 2; Neutral = 3; Agree = 4; Strongly Agree = 5

1. I have no fear of giving a speech.

2. Certain parts of my body feel very tense and rigid while giving a speech.

3. I feel relaxed while giving a speech.

4. My thoughts become confused and jumbled when I am giving a speech.

5. I face the prospect of giving a speech with confidence.

____6. While giving a speech, I get so nervous I forget facts I really know.

APPENDIX B

APPENDIX B

Part II: Exam

Mark all of your responses on the exam.

1. When the general purpose of your speech is to _____, you act primarily as a teacher or lecturer.
 - A. convince
 - B. inform
 - C. entertain
 - D. persuade

2. When you present a speech using note cards or an outline, you are using what type of delivery?
 - A. Extemporaneous
 - B. Impromptu
 - C. Manuscript
 - D. Memorized

3. Which of the following is *not* a way to gain an audience member's attention at the beginning of a speech?
 - A. Asking a rhetorical question
 - B. Beginning with a quote
 - C. Summarizing the main points
 - D. Telling a story

4. Source credibility is defined as _____.
 - A. a person's perception of the speaker's attractiveness.
 - B. a person's perception of the speaker's similarity.
 - C. a person's perception of the speaker's believability.
 - D. a person's perception of the speaker's personal wealth.

5. Claudia's speech was about how she is in favor of recycling to prevent global warming. She informed the audience that if no recycling is done, their families will feel the negative effects. Claudia used (an) _____ as a way to connect her audience to her topic.
 - A. attention-getter
 - B. credibility
 - C. goodwill
 - D. relevance

6. At the beginning of his speech, Taylor asked a certain type of question to his audience that doesn't require a response to gain their attention. This is an example of a(n)_____.
 - A. Leading question
 - B. Open-ended question
 - C. Rhetorical question
 - D. Yes/no question

7. Which example best illustrates an audience centered approach to communication?
 - A. Telling an audience what they want to hear.
 - B. Telling an audience what you want them to hear.
 - C. Telling an audience what you want them to hear but in a way that makes them receptive to your message.
 - D. Telling an audience what they don't know.

8. If you were giving an informative speech about brain aneurysms, the most important factor to consider when analyzing your audience would probably be its_____.
 - A. attitude toward the speaker
 - B. ethnic background
 - C. gender
 - D. knowledge about the topic

9. What type of organizational pattern is reflected in the following speech outline?
 - I. Walt Disney started his career as a cartoonist.
 - II. Walt Disney then became a film director.
 - III. Walt Disney then started designing theme parks toward the latter part of his career.
 - A. Cause/Effect
 - B. Chronological
 - C. Spatial
 - D. Topical

10. Mark is doing a presentation over hurricanes that hit Texas in 2008. He is starting with the southernmost hurricane, Dolly, and making her way up to Ike that hit Galveston Bay. Which of the following organizational patterns is Mark using?
 - A. Cause/Effect
 - B. Chronological
 - C. Problem/Solution
 - D. Spatial

11. After informing the audience of the origins of the Roman Empire, Rachel next informed her audience members that she was going to talk about some of the important Roman Empire battles. Which transition technique is Rachel using?
- A. Internal preview
 - B. Internal summary
 - C. Internal preview/summary
 - D. External preview
12. Which of the following is *not* an effective way to end a speech?
- A. End with a quotation
 - B. Make a dramatic statement
 - C. Thank the audience
 - D. Summarize your speech
13. Instead of saying "congressman" during her presentation, Lucy decides to say "member of congress." Lucy's choice of non-gender specific words can best be described as _____.
- A. concrete
 - B. correct
 - C. simple
 - D. unbiased
14. Rate is defined as _____.
- A. the changes in pitch or tone of a speaker's voice
 - B. the highness or lowness of a speaker's voice
 - C. the loudness or softness of a speaker's voice
 - D. the speed at which a person speaks
15. Pitch is defined as _____.
- A. The changes in tone of a speaker's voice
 - B. The highness or lowness of a speaker's voice
 - C. The loudness or softness of a speaker's voice
 - D. The speed at which a person speaks
16. Articulation is defined as _____.
- A. the accepted standard of sound and rhythm for words in a given language
 - B. the constant pitch or tone of a voice
 - C. the changes in a speaker's rate, pitch, and volume that give the voice variety and expressiveness.
 - D. the physical production of particular speech sounds

17. When Mike was delivering his speech, he was saying words such as “like,” “uh,” and “um” to fill the silence between words. These words are examples of _____.
- A. inflections
 - B. pitch
 - C. vocalized pauses
 - D. vocal variety
18. All of the following are ways a speaker can use his/her body to deliver an effective speech *except* _____.
- A. dialect
 - B. gestures
 - C. movement
 - D. posture
19. While giving her speech, Cynthia was looking at her note cards the entire time. Which of the following did Cynthia not use to deliver her speech effectively?
- A. Eye contact
 - B. Facial expressions
 - C. Gestures
 - D. Posture
20. All of the following guidelines are ways to help use visual aids in a presentation effectively *except* to _____.
- A. Display visual aids and then pass them out while presenting
 - B. Display visual aids only while discussing them
 - C. Display visual aids that have fonts that are easy to read
 - D. Display visual aids where listeners can see them

APPENDIX C

APPENDIX C

THE COMPETENT SPEAKER SPEECH EVALUATION FORM

SPEAKER'S NAME:	ASSIGNMENT:		
EVALUATOR'S NAME:	DATE:		
<u>EIGHT PUBLIC SPEAKING COMPETENCIES</u>	<u>SPEAKING PERFORMANCE RATINGS</u>		
	Unsatisfactory	Satisfactory	Excellent
*Assign Scoring Ranges:			
<u>TOPIC:</u> Chooses and narrows a topic appropriate for audience and occasion Comments:			
<u>THESIS/SPECIFIC PURPOSE:</u> Communicates the thesis/specific purpose in a manner appropriate for audience and occasion Comments:			
<u>SUPPORTING MATERIAL:</u> Provides appropriate supporting material based on the audience and occasion Comments:			
<u>ORGANIZATION:</u> Uses an organizational pattern appropriate to topic, audience, occasion & purpose Comments:			
<u>LANGUAGE:</u> Uses language that is appropriate to the audience, occasion, & purpose Comments:			

<p><u>VOCAL VARIETY:</u></p> <p>Uses vocal variety in rate, pitch, & intensity to heighten and maintain interest Comments:</p>			
<p><u>PRONUNCIATION:</u></p> <p>Pronunciation, grammar, & articulation appropriate to the designated audience Comments:</p>			
<p><u>PHYSICAL BEHAVIORS:</u></p> <p>Uses physical behaviors that support the verbal message Comments:</p>			

General Comments:

Summative Scores of Competencies: _____

BIOGRAPHICAL SKETCH

Gilberto Aaron Castillo earned his Bachelor's degree in Communication Studies from The University of Texas-Pan American in August 2008. He also earned his Master's degree in Communication from The University of Texas-Pan American in May 2010. While at UTPA, Mr. Castillo was a graduate teaching assistant from 2008-2009 and served as the Hauser Endowed Research Assistant from 2009-2010. Mr. Castillo's mailing address is 25 Chihuahua Ct., Brownsville, Texas, 78520.