

EFFECT OF PUBLIC SPEAKING ANXIETY ON
STUDENT ACADEMIC LEARNING IN
ORAL PERFORMANCE COURSES

by

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A THESIS

IN

COMMUNICATION STUDIES

Submitted to the Graduate Faculty
of Texas Tech University in
Partial Fulfillment of
the Requirements for
the Degree of

MASTER OF ARTS

Approved

Accepted

May, 1991

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ACKNOWLEDGEMENTS

I am deeply indebted and sincerely grateful to Dr. Robert A. Stewart for his support, encouragement, guidance and direction in the development and execution of this thesis. Dr. Stewart's insight, willingness to keep a flexible schedule and sense of priority kept the research and analysis on track. I am also very appreciative of Dr. Dan O'Hair and Dr. Katherine Hawkins for their help and commitment to making the project worthwhile and meaningful.

There are four people who, though not directly involved in this work, have none-the-less played a significant role. Special thanks go to Dr. Robert Rothstein for his encouragement to continue my formal education and to Dr. Lee Buice for helping me develop not only a philosophy of Speech Communication but also a concept of myself. The special support of my parents, Clay and Alma Bednar, kept things together when times got really tough and kept me going in the face of awesome obstacles.

Thanks to my son Paul, for making me feel the hero when I was lowest, for keeping me humble when I needed to

be and for becoming a man long before he should have given up his boyhood.

Above and beyond all, to my wife, Nancy, I have a gratitude beyond words. Thank you for your unwavering encouragement, your willingness to bear an often dreary load, for keeping home and hearth together and for your absolute faith in me. You were always there and I know that for every step that I took, you often took two.

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CHAPTER I
INTRODUCTION

From the beginning of modern civilization, many people have been plagued with an array of often debilitating fears and anxieties about communicating with others--especially in a public performance context. The Roman orator Cicero, for example, enumerated some of the physical and psychological manifestations of these communicative anxieties when, in 55 B.C., he confessed that, "I turn pale at the outset of a speech and quake in every limb and in all my soul" (De Oratore, p. XXVI). Despite this ancient depiction of what is more contemporarily labeled public speaking anxiety (PSA) (Lomas, 1937), only within the past half-century have researchers in the disciplines of psychology, education, and communication begun to explore the complex causes, traumatic effects, and potential remediations of the phenomenon (Lomas, 1937, 1944; Henrikson, 1944; Paulson, 1951; Greenleaf, 1952; Lerea, 1956).

Moreover, only within the last two decades have communication scholars made progress in developing conceptualizations, measurements, and theoretical explanations for these fears. According to Daly, Vangelisti, Neel, and Cavanaugh (1989), the major

efforts of public speaking anxiety (PSA) research have focused on a multitude of different theoretic explanations (Cahn, 1983; Daly & Buss, 1983, 1984; Daly & McCroskey, 1984; Jones, Cheek & Briggs, 1986; Leary 1983), empirical tests of those explanations (Beatty, 1988a), and the impact of PSA on cognitive activities such as decisions about whether or not to make a speech (Beatty, 1986). Such variables as audience size (McKinney, Gatchell & Paulus, 1983), speaker perceptions of audience expectations (Ayers, 1986), and general, dispositional anxiety (Beatty & Andriate, 1985) have been studied against the backdrop of PSA. Despite these research efforts and the fact that many basic speech courses incorporate attempts to reduce the impact of PSA (Gibson, Gruner, Hanna, Smythe & Hayes, 1980), public speaking anxiety has "received far less attention from scholars than have interpersonally-related sorts of shyness" (Daly, et al. 1989, p.39).

Much, therefore, remains obscure about what the Burskin Report (1973) identifies as a major socio-psychological concern of Americans--fear of public speaking. Although a plethora of causal factors or observable effects could be examined, the major thrust of this study is directed toward illuminating one facet of PSA that has, thus far, been approached only

indirectly. With the Booth-Butterfield et al. (1990) and the Daly et al. (1989) studies as the genesis, this investigation is designed to examine the relationship between anxiety about oral performance and knowledge concerning the elements and procedures associated with public discourse.

Utilizing a pre-course/post-course testing scheme, data were collected in such a way as to permit the examination of: (1) students' levels of public speaking anxiety at the outset and the close of a course in public speaking or presentation making, and (2) the level of academic knowledge about the process of public speaking both at the beginning and at the end of formal instruction in public speaking/presentation making. Such an arrangement was intended to provide reliable empirical data useful in assessing what effect various levels of PSA have on the cognitive assimilation of formal academic instruction about public speaking.

Overview of Communication Anxiety

As a discrete phenomenon, public speaking anxiety must first be approached from within the broader, more generalized construct of communication apprehension (CA). Although the primary concern of this study is PSA, it is important to review the construct of communication apprehension so that the relationship of

the two concepts and a clear distinction between them may be drawn.

Initially described as "a broadly based anxiety related to oral communication" (McCroskey, 1970, p. 279), CA has been examined under a variety of labels including "stage fright" (Clevenger, 1959), "audience sensitivity" (Paivio, 1964), "reticence" (Phillips, 1968), "shyness" (Zimbardo, 1977), "unwillingness to communicate" (Burgoon, 1976), and even "public speaking anxiety" (Lomas, 1937). While early studies provided a foundation for the exploration of communication apprehension (McCroskey, 1984), the construct differs from that of the other communicative anxieties in that CA assumes only anxiety or fear as the central causal agent. McCroskey (1977, 1982) differentiates between CA and reticence, for example, asserting that CA be considered a subset of the much broader concept of reticence. Whereas reticence represents a broad range of "unskilled" communicative behaviors, CA concerns itself only with that communication difficulty stemming from anxiety or fear about the communication transaction. In other words, while reticence may result from ignorance about how to prepare and present a public speech, CA is a derivative of fear or anxiety about making the performance even though the speaker may be fully knowledgeable about the elements of preparing and

presenting an address. Although the "unwillingness to communicate" concept (Burgoon, 1976) focuses on a broad predisposition to avoid communication, it also identifies a multiplicity of potential causes, other than anxiety, such as alienation, low self-esteem, or introversion (McCroskey, 1977).

While "audience sensitivity" and "shyness" are essentially similar in nature to CA, both concepts arise from research in the field of psychology and, according to Buss (1984), are both subcategories of the more general concept of social anxiety. The construct of communication apprehension, on the other hand, developed from earlier research in speech communication (McCroskey, 1977). Whereas "audience sensitivity" might include oral performance situations, the anxieties associated with the phenomenon are also experienced by such "non-speaking" performers as musicians, dancers, and athletes (Buss, 1984, p. 43). "Shyness" is different from both "audience sensitivity" and CA in that "shyness occurs only in the context of small conversational or other social groups in which there is a give and take of interaction; there is no audience, no performance, and less evaluation" (Buss, 1984, p. 43).

Besides differentiating CA from other communicative disabilities, such as physical dysfunctions or simple lack of language skills, extensive research has

attempted to identify the specific type of fear or anxiety involved in CA. Spielberger (1966) and Lamb (1973) postulated two variants of anxiety: "trait" and "state" apprehension.

The original research advancing the construct of CA included no explicit definition of whether CA should be viewed as a trait of an individual or as a response to the situation of a given communication transaction (McCroskey, 1984). It was implied, however, that CA should be seen as a "traitlike" response, generalized across situations and time. The overwhelming majority of the early research studies employing the CA construct assumed such an approach (McCroskey, 1977).

However, more recent notions (McCroskey 1984; Richmond & McCroskey, 1989; Richmond, 1978) have explained the nature of CA by placing the construct on a continuum that ranges from communication apprehension as a trait, through CA in generalized contexts, CA with a given audience across situations, and culminating with CA with a given individual or group in a given situation (see Figure 1.1). As McCroskey (1984) asserts

"this continuum can be viewed as ranging from the extreme trait pole to the extreme state pole, although neither the pure trait nor pure state probably exists as a meaningful consideration" (p.15).

Research demonstrates that about 20 percent of the population falls in one or the other extreme categories

of CA, either traitlike or situational (Richmond & McCroskey, 1989, p.34). The remaining 80 percent falls along the continuum between the extremes, indicating that all people experience some degree of CA at times. It has, therefore, become common to differentiate persons as being either "high" or "low" CA, meaning that they respond to communication situations in a fairly consistent manner.

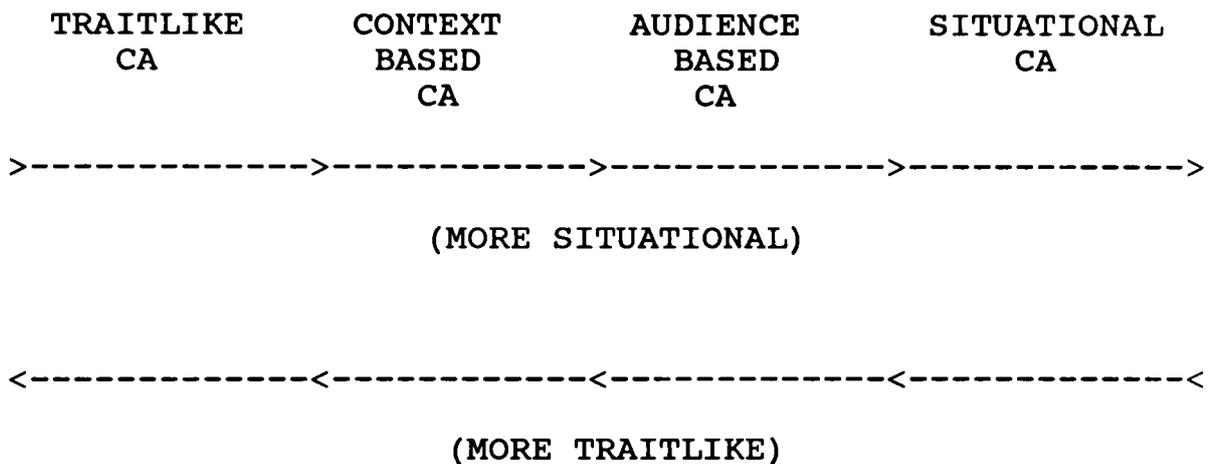


Figure 1. Communication Apprehension Continuum
(Richmond & McCroskey, 1989, p.33)

Traitlike apprehension is characterized as fear or anxiety regarding a broad range of communicative acts, from giving a formal speech before a large audience to talking within a small group or even in dyadic conversations (McCroskey, 1977). In effect, persons experiencing traitlike CA have a fear or anxiety about

communicating with almost any given person in almost any given situation. Traitlike CA is currently viewed as "a relatively enduring, personality-type orientation toward a given mode of communication across a wide variety of contexts" (McCroskey, 1984, p. 16).

Context-based CA is best described as a fear or anxiety about communicating in one type of context or situation, while having little or no fear or anxiety about other contexts or circumstances. For example, persons may experience relatively high anxiety or fear about public speaking situations and little or no apprehension about dyadic or small group environments. While research (Richmond & McCroskey, 1989) indicates that the oral performance situation generally produces the greatest anxiety in most people, other situations (e.g., job interviews, meeting new people, social groups, etc.) can be equally traumatic for certain individuals. Asserting that context-based CA relates to generalized types of situations, McCroskey (1984) defines context-based CA as "a relatively enduring, personality-type orientation toward communication in a given type of context" (p. 16). It is PSA at this point of the CA continuum that is of interest in the present study; i.e., this study focuses on anxiety in the generalized-context of oral presentation in front of an audience.

Audience-based CA is viewed as "a relatively enduring orientation toward communication with a given person or group of people" (McCroskey, 1984, p. 17). Such apprehension is not thought to be a personality characteristic (e.g., traitlike) but rather a result of the environment created by the presence of an audience. As McCroskey (1984) points out, "this type of CA is presumed to be more a function of the situational constraints introduced by the other person or group than by the personality of the individual" (p. 18).

Situational CA, the most "statelike" form, is induced in an individual when communicating with another specific person or group at a specific time (McCroskey, 1984). McCroskey describes situational CA as, "a transitory orientation toward communication with a given person or group of people" (1984, p.18). For example, an employee may experience little or no apprehension when asking a superior questions about work procedures but then experience high situational anxiety when communicating with that superior about job performance.

In summary, traitlike CA is seen as anxiety which occurs in virtually all contexts, with nearly all receivers almost all of the time. Context-based CA is best described as apprehension associated with a single type of communication context (e.g., public speaking) regardless of audience or time. Audience-based CA

relates to anxiety experienced when communicating with a given individual or group without concern for communication format (i.e., dyadic, small group, etc.). Finally, situational CA is defined as apprehension associated with communicating with a given individual or group in a single, specific situation. The present investigation is concerned with context-based CA in the form of oral performance anxiety.

Throughout the present study, the terms "public speaking" and "public speaking anxiety" are used to differentiate oral presentation and the related anxieties about such presentation from those communicative acts and anxieties associated with oral interpretation, reader's theater or theatrical performance. Public speaking or oral presentation, therefore, are viewed in the present study as "that form of communication in which a speaker addresses a relatively large audience with a relatively continuous discourse, usually in a face-to-face situation" (DeVito, 1986, p. 244). Such a definition, whether labeled public speaking or oral presentation, includes those public presentations encountered by students in typical collegiate speech courses (i.e., Public Speaking, Business and Professional Communication, Introduction to Speech Communication, etc.).

The Nature of
Public Speaking Anxiety

Richmond and McCroskey (1989) report that PSA is pervasive throughout society. Of several thousand college students who have completed the most frequently utilized measure of PSA, the Personal Report of Public Speaking Anxiety (PRPSA) scale, 5 percent reported low anxiety about public speaking, 5 percent scored moderately low, 20 percent reported moderate anxiety, an additional 30 percent revealed moderately high apprehension and 40 percent reported high levels of anxiety about speaking in public (Richmond & McCroskey, 1989).

Clevenger (1955, p.27) defined the PSA phenomenon (within the construct of "stage fright") as

any emotional condition in which emotion overcomes intellect to the extent that communication is hampered, either in audience reception or in speaker self-expression, where the immediate objective or stimulus of the emotion is the speech-audience situation.

Ayers (1986, p.277) explains this definition by suggesting that, "an impending public speech gives rise to an emotional reaction (typically fear or anxiety) that interferes with the person's performance."

An understanding of the nature of PSA hinges upon the recognition that it is a unique and specific set of anxieties. Burgoon and Hale (1983) conclude, "anxiety about oral performance is separate from anxiety about

and willingness to be involved in face to face encounters" (p. 302). Glazer (1981) points out that, "Clearly, there are differences between stage fright, or public speaking anxiety, and a more generalized, cross-situational fear and avoidance of oral communication" (p. 334). According to Ayers (1986), "While communication reticence has common features that are cross-situational, it has particular characteristics that are associated with particular situations" (i.e., oral performance) (p. 275).

A number of explanations for the existence of public speaking anxiety have been advanced. Among these explanations are skills deficits (Phillips & Metzger, 1973), conditioning (McCroskey, 1984), cognitive structures (Leary, 1983), cognitive-physiological factors (Behnke & Beatty, 1981), and an assimilation theory perspective (Beatty & Behnke, 1980). The skills deficit approach suggests that anxiety increases in an individual because of a lack of the necessary performance skills to accomplish the goal of the communicative act. McCroskey's (1984) conditioning explanation asserts that people come to feel anxious in communication settings because relatively neutral communication activity becomes associated with aversive consequences. The cognitive structures position adopted by Leary (1983) assumes that the way people think about

themselves in communication situations precipitates the feeling of anxiety. For example, a person's cognitive view of themselves that they are not physically attractive would tend to create higher anxiety when they are placed in an oral performance situation and audience attention is focused on them. In yet another approach, Behnke and Beatty (1981) adopt Schachter's (Schachter & Singer, 1962) theory of cognitive-physiological formulation of emotion to an explanation of speech anxiety when they assert that,

Studies by Dickens and Parker (1951), Clevenger, Motley and Carlile (1967), and Porter (1974) have demonstrated that public speaking is associated with autonomic [physiological] arousal. Extending Schachter's theory, the labeling [cognitively] of this arousal as anxiety is dependent upon a speaker's predisposition to view this task as a negative experience. Communication apprehension could be conceptualized, in part, as a predisposition to label arousal during public speaking as speech anxiety [PSA]. (p. 159)

By definition, public speaking anxiety represents a cluster of evaluative feelings about speech-making (Daly et al. 1989). Each person brings to a given situation, such as a public speech, an established set of beliefs and expectations, combined as cognitions, which shape how that individual behaves in that specific situation.

One theory which follows this idea is action assembly theory (McReynolds, 1976). Beatty and Behnke (1980) suggest that the onset of communicative anxieties

is the result of prior negative experiences. According to Averill (1976), traitlike anxieties may be viewed as category systems that function to define rules of behavior. Assimilation theory predicts that these category systems are affirmed, reinforced and stabilized by experience that is consistent with expectations and weakened by experiences that conflict with expectations.

The theory also assumes that as individuals have negative experiences or aversive consequences to communication situations, these experiences and consequences combine to produce a repertoire of negative expectations. These expectations become assimilated into that individual's category system and, therefore, determine the rules of behavior, in this case, the onset of anxiety in communication situations. As Beatty (1988b) points out in his review of literature, these negative consequences and reinforced expectations result in tendencies to avoid or withdraw from speaking, low verbal output, non-fluency, physical discomfort, and trembling. Relevant to the present study, then, action assembly theory maintains that PSA results from experiencing negative consequences in public speaking related situations which produce anxiety responses leading to avoidance tendencies or depressed performance (Beatty, Andriate & Payne, 1985; Beatty & Behnke, 1980; McCroskey & Beatty, 1984).

Another theoretical perspective that is useful for understanding PSA is schema theory. Schema are cognitive structures that consist, in part, of the representation of some defined stimulus domain (Fiske & Taylor, 1980). The assumption that such structures are central to the cognitive process has long been accepted (Bartlett, 1932; Bruner, 1957) and research has shown that schemas influence all stages of information processing (Markus & Zajonc, 1985). One's schema contain general information and knowledge about domains, such as oral performance, and include a specification of the relationships among the domain's attributes. One of the primary functions of schema, therefore, is to provide answers to the question "what is it?" Further, schema may also provide a basis for actual behavior in the form of "scripts" describing how an individual should behave or react in a given situation (Belleza & Bower, 1981; Locksley, Stangor, Hepburn, Grosovsky & Hochstrasser, 1984). Rowland and McGuire (1971) point out that

"cognitively speaking, a representation for any behavior exists in the cognitive structures [schema], which serve as the basis for future cognitive and behavioral interaction with the environment" (p. 21).

Individuals, therefore, possess a "cognitive image" that both defines what a given situation is and how to react to that given situation.

Schema may be conceptualized as being either more "primitive" or more "sophisticated" as a function of both the depth and breadth of knowledge comprising the structures. Primitive schema may be viewed as uncomplicated, relatively shallow assemblages of information defining a domain or concept (e.g. oral presentation) in very broad, non-detailed terms. For example, individuals' schema about public speaking might consist of few units of information describing the general nature of public speaking (i.e. an audience is present) and yet providing no behavior directives about how to perform successfully in the public context. Such underdeveloped schema may result from informal sources of knowledge such as self-help books or tapes, unstructured observation of others or, incomplete, inaccurate attempts at modeling. Such undeveloped schema might also be the result of insufficient or unsuccessful academic training (e.g., a student who fails an oral performance course).

On the other hand, more sophisticated schema provide a much more detailed depth of information that not only defines the nature of the domain but also provides specific cues about how to react to the parameters of a given situation. Although primitive schema provide a degree of generalization to other domains, sophisticated schema possess sufficient depth to

provide a unique set of instructions for dealing with a given communicative context. More sophisticated schema, for instance, would not only recognize public speaking as a context involving an audience, but would also prompt the speaker to discriminate between a friendly or hostile audience. More sophisticated schema about oral presentation making would result from formal, academic instruction, structured observation and experience (e.g., Toastmasters), or complete, accurate modeling.

Research has established a schema-based explanation for the onset of anxiety in a number of social-communicative situations. Mandler (1975) has suggested that anxiety arises when an individual cannot identify appropriate actions or responses to given situations (e.g., public speaking). Such a position suggests that some individuals' schema are not sufficiently developed to provide "scripts" about how to respond to the oral performance event. Greene and Sparks (1983) support this view when they state that,

when an individual has an interaction goal (or goals) [such as performing well in a public speaking situation] that cannot be satisfied through use of automatic behaviors, there will be an onset of planful generation of communicative behaviors [through selection of a "script" for public speaking] aimed at accomplishing these goals. In the event that this generation-evaluation sequence fails to produce a behavior or behavioral strategy expected to lead to successful goal attainment, a state of anxiety will arise.
(p. 351)

Assimilation theory and schema theory would seem to complement each other as explanations for the experience of PSA. In essence, schema develop as a function of assimilated experiences in a given context. In the case of PSA, then, a generalized anxiety develops as a consequence of experiencing negative outcomes associated with public performances, or observing those of others. These assimilated experiences coalesce in cognitive processing such that a schema of public speaking develops. The character of the developed schema is negative, associated with anxiety arousing stimuli.

McCroskey (1984) has adopted a cognitive focus in his approach to understanding CA through the concept of "learned helplessness." A key element of that approach suggests that persons experiencing high levels of CA have schemata or "scripts" which produce expectations of poor performance in the communication situation and, therefore, engender higher levels of anxiety. In other words, individuals experiencing high levels of PSA predict that they will perform poorly in the speaking circumstance and are, therefore, anxious about that poor performance and the predicted consequences (e.g. lower grade, ridicule, lower social esteem, etc.). Such negative predictions may be the result of ignorance of the rules and mores of oral presentation or public speaking. That is, persons' schemas are so poorly

developed about public speaking that their expectations are either negative or inaccurate.

The theoretical frameworks previously reviewed suggest that PSA results or persists as a result of cognitive processing of information about the public speaking situation. Although not working from these orientations, per se, some very recent studies have established the relationship of PSA to individuals' thought processes about public speaking.

Daly et al. (1989) answered a number of related questions about people's cognitions during the oral performance experience. They determined that in public speaking situations, people's questions, beliefs, and expectancies about such things as the audience, the environment, the speech itself, and their role in the setting affect the degree and impact of public speaking anxiety. Their study revealed significant differences between persons exhibiting high levels of PSA and people revealing low PSA levels. For example, persons having high PSA were more interested in answers to a variety of questions about a future speech than were less anxious people. Their study further revealed that highly anxious people were more negative in their feelings about performance and evaluation than were low PSA individuals, specifically, "high anxious subjects had proportionately more negative constructs while low

anxious subjects had more neutral idea units" (p. 47). Their findings suggest that persons exhibiting high levels of PSA seek more information or knowledge about public speaking in an effort to gain more certainty about what is expected of their performance. This attempt at "schema building" may be one way of coping with anxiety for some speakers.

Booth-Butterfield and Booth-Butterfield (1990) examined the inter-relationship of thoughts, state anxiety and predispositional apprehension during public speaking performances and discovered that levels of state anxiety and negative cognitions about public speaking are relatively stable across time. Subjects who exhibited elevated levels of PSA at the beginning of a basic public speaking course, for example, continued to report greater than nominal PSA at the conclusion of the course despite the experience of oral performance and exposure to academic instruction about the skills and techniques of public discourse. Conceding that the relationship between anxiety and cognitions may be best described at the present time as circular (Beatty, Balfanz, & Kuwabara 1989; McCroskey, & Beatty, 1984), the study concluded that a significant relationship between level of anxiety and cognitions not only explains the success of cognitive therapies in reducing anxiety, but further suggests that cognitive schema have

specific impact on speakers' emotional responses and behavior, asserting that

the negative affect experienced with public speaking anxiety seems to color and perhaps bias the cognitive pattern. Anxious speakers tend to envision more failure outcomes, perceive the environment as more hostile, focus on postponing or avoiding the event, become hyper-aware of physiological symptoms, and have more difficulty planning a strategy for successful enactment of communicative performances. (p. 45)

While the two studies just reviewed have revealed important findings with regard to the relationship between PSA and individuals' thought processes, what is lacking are studies of how PSA might impact on learning of academic information about public speaking. The question of concern here is, to what extent is student learning of principles and methods of public speaking, as presented in formal, structured courses, affected by their levels of PSA?

Public Speaking Anxiety and The Academic Construct of Public Speaking

One of the goals of communication education is to prepare individuals to become effective communicators in a variety of environments, including the oral presentation situation. Communication educators have maintained a relatively stable construct of the public speaking event for the past thirty years. As noted earlier, DeVito (1986) defines public speaking as, "That

form of communication in which a speaker addresses a relatively large audience with a relatively continuous discourse, usually in a face-to-face situation"(p.244). Ehninger, Gronbeck, McKerrow and Monroe (1986, p.4), while stressing the social role of public speaking, define the act as one in which the speaker's purpose is "to present oral messages of some length and complexity to groups of listeners." Referring to the general process of "rhetorical communication," McCroskey (1986, p.4) defines public speaking as, "the process of a source stimulating a source-selected meaning in the mind of a receiver[s] by means of verbal and nonverbal messages." Explicating these definitions, most speech textbooks stratify the public speaking construct into at least seven procedures or skills: (1) selecting a topic or subject, (2) determining the purpose of the discourse, (3) analyzing the audience and occasion, (4) establishing a theme or thesis for the speech, (5) researching for evidence or supporting materials, (6) organizing or outlining the presentation, and (7) deciding on delivery technique or style and rehearsing the presentation (Allen, Anderson, Hough & Grow, 1968; Andersch, Staats & Bostrom, 1974; Andersen, Nichols & Booth, 1974; Andrews, 1987; Ayers & Miller, 1986; Baird, Knower & Becher, 1973; Barrett, 1968; Barrett, 1973; Barrett, 1982; Bennett & Corrigan, 1972; Bostrom, 1988;

Bradley, 1984; Brandes & Smith, 1964; Brigance, 1960; Brooks, 1980; Bryant & Wallace, 1960; Bryant & Wallace, 1962; Busby & Majors, 1987; Byrns, 1985; Capp, Capp, & Capp, 1986; Cohen, 1980; Crandell, Phillips & Wigley, 1963; Crane, 1986; Dance & Zak-Dance, 1986; DeVito, 1987; Ehninger, Gronbeck, McKerrow & Monroe, 1986; Fausti & McGlone, 1972; Ferguson & Miller, 1980; Fletcher, 1979; Griffith, Nelson, Stasheff, 1960; Gronbeck, 1983; Gruner, 1983; Hanks & Andersen, 1969; Hanna & Gibson, 1987; Haskins & Staudacher, 1987; Heun & Heun, 1986; Hilbert, 1986; Holm, 1967; Hunt, 1987; Katula, 1987; Kelly & Watson, 1986; Lucas, 1986; McCroskey, 1986; Mudd & Sillars, 1986; Nelson & Pearson, 1984; Osborn & Osborn, 1988; Samovar & Mills, 1986; Seiler, 1988; Sprague & Stuart, 1988; Trapp, 1986; Verderber, 1988; Whitman & Foster, 1988). Recent research has investigated the nature of collegiate basic public speaking courses (Gibson, Hanna & Huddleston, 1985; Johnson & Szczupakiewicz, 1987) and indicates that significant effort and time is devoted to teaching skills in informative and persuasive purposes, audience analysis, researching support material, outlining and presentation techniques.

Such a pedagogical model operates with the assumption that the typical student approaches the public speaking course with either no knowledge of these

elements or with only a general, vague idea of public speaking reflecting only some of these components. In other words, students entering a basic public speaking course are considered to have underdeveloped or "primitive" schema pertaining to public speaking.

This poorly developed knowledge base about public speaking may be one determinant of PSA. As Greene and Sparks (1983) indicated, anxiety will arise when an individual is unable to adequately generate a plan for behavior in a particular communication context. Relatedly, part of the problem for the student entering a public speaking course is the novelty and unfamiliarity of the public speaking context. As Beatty and his colleagues have established (Beatty, 1988a; Beatty, Balfantz, & Kuwabara, 1989), novelty and lack of familiarity with a public speaking situation are strongly related to PSA.

On the other hand, students who are more knowledgeable about public speaking may be expected to have more sophisticated schema and find little or no novelty or unfamiliarity in most public speaking situations. While occasional anxiety increases might be exhibited due to a highly controversial topic or a hostile audience, for example, the speaker with more developed cognitions about public speaking would be expected to experience much less PSA.

Research Questions

It has been established that public speaking anxiety represents a set of anxieties experienced in a specific situation and that PSA may be regarded as an actual reaction to a stimulus such as a presentation before an audience (Spielberger, 1966). Spielberger (1972) further suggests that PSA "may be conceptualized as consisting of unpleasant, consciously perceived feelings of tension and apprehension, with associated activation or arousal of the autonomic nervous system" (p. 29).

Within the framework of assimilation theory, CA is seen as a composite of negative experiences, emotions and cognitions resulting in increased anxiety about communication. Similarly, PSA is conceptualized as the result of negative experiences, emotions, and cognitions which serve to increase fear of communication in the specific circumstance of public presentation (Beatty & Behnke, 1980).

The importance of schema theory in understanding the cognitive process of information processing has long been accepted (Bartlett, 1932; Bruner, 1957) and continuing research has verified the idea that schema impact all aspects of information processing (Markus &

Zajonc, 1985). The development of cognitive schema about communication, especially public speaking, can be used to explain students' knowledge of what the event of public speaking is and how to shape or control that event to achieve the desired outcomes.

Since increased levels of CA have been shown to produce avoidance behaviors (Booth-Butterfield, 1988), it may be postulated that individuals with higher levels of a generalized-context CA, such as PSA, would tend to avoid, where possible, anxiety producing situations such as public speaking courses. The fear of having a negative experience would be sufficient to deter exposure to formal public speaking instruction, especially in courses where oral presentation is required. The result is a more primitive schema or reduced level of knowledge about public speaking.

The impact of high levels of anxiety on students' learning and learning outcomes has been investigated from the perspective of "test anxiety" or apprehension about evaluated performance. Scott and Wheelless (1977), investigating the relationship between communication anxiety and student achievement, report that

The most obvious effects of oral communication apprehension [PSA] on student achievement involves instructional strategies which require the highly apprehensive student to participate orally; for example, in public speaking (p. 247).

Further research (McCroskey and Anderson, 1976) suggests that highly apprehensive students exhibit lower overall grade point averages and, generally, produce lower scores on measures of achievement than do students with lower levels of anxiety. Additional work (Hamilton, 1972; McCroskey and Sheahan, 1976) has provided evidence that highly apprehensive students exhibit performances substantially below the norm when required to participate in such learning activities as making oral presentations.

Such learning outcomes (i.e. lower test scores, lower performance evaluations, lower overall grades) have been shown (Tobias, 1980) to be the result of an interaction between the level of anxiety and the cognitive learning process. Tobias (1977, 1979) proposes a model of learning which makes salient the debilitating impact of high levels of anxiety upon the cognitive processing of instructional messages. Tobias (1977) asserts that

Since learning is a process that is essentially cognitively mediated, anxiety can affect learning . . . by impacting on the cognitive process mediating learning at various stages (p. 575).

Sarason (1972) and Wine (1971) suggest that persons high in anxiety divide their cognitive attention between task demands (e.g. learning and demonstrating the principles of public speaking) and thoughts either caused by or

about the anxiety itself. Persons with lower levels of anxiety would be expected, therefore, to cognitively process and learn more since they devote more attention to the task demands and less attention to thoughts about the feelings of anxiety. The focus of attention on anxiety implies that while highly anxious students are preoccupied with concerns such as worry about future, evaluated performance, they miss some proportion of instructional input (Tobias, 1980). The missing instructional input cannot be assimilated, added to the student's schema about the task or used to produce effective learning outcomes (viz. passing test scores).

While the forgoing research centers upon understanding the specific construct of "test anxiety," it also suggests that the unique set of anxieties labeled PSA, as the dominante concern of highly anxious individuals in oral performance courses, may engender parallel inhibitions to the learning of the principles and techniques of public presentations in the academic setting.

Further, high PSA individuals would be expected to avoid even the less formal methods of learning about the principles and techniques of public presentations (e.g. modeling, self-help books and tapes, Toastmasters clubs, etc.). As noted earlier (p. 17), these non-academic methods serve to help some individuals develop more

complex schema about the public speaking domain.

Persons exhibiting high PSA, by avoiding these learning opportunities, maintain a less developed schema about public presentation and would be expected to begin an academic course in public speaking not only with higher than nominal levels of anxiety but also with less demonstratable knowledge about public presentation than would persons lower in anxiety.

On the other hand, persons with lower levels of anxiety would have little or no fear of the public speaking course, be more disposed to participate in oral presentation as a learning exercise, be more interested and more task focused upon opportunities to learn more about public speaking and less concerned about feelings of anxiety. Such persons would, therefore, be expected to approach an academic public speaking course with a more complex schema and more specific, detailed knowledge about public speaking. It is postulated, therefore, that persons low in PSA are likely to exhibit more accurate knowledge about public speaking than would persons with higher anxiety.

Based upon the foregoing review of research and the extension of that research to include PSA, the nature of the impact of PSA on the acquisition and assimilation of knowledge about public speaking may be determined. It is thus appropriate to ask:

RQ₁: Will there will be, at the beginning of a course, significant differences among low, moderate, and high PSA students in their accuracy of knowledge about public speaking principles?

Recent research (Richmond & McCroskey, 1989; Booth-Butterfield & Booth-Butterfield, 1990) has established that most individuals experience some degree of anxiety in given communication situations at different times. As McCroskey (1984) points out, low CA is not equivalent to zero CA. Persons with normally low CA, for example, might experience higher levels of CA at the beginning of a public speaking course as a function of novelty or an evaluative circumstance. Following a public speaking course, a significant difference in anxiety about public speaking would be expected to remain between persons who were initially high in anxiety and persons initially low in PSA.

If, as communication educators expect and schema theory supposes, increased knowledge about public speaking reduces the onset of anxiety about the performance, then it is expected that there would be a significant reduction of anxiety following a public speaking course when compared with the level of anxiety at the beginning of the course. Figure 1.2 illustrates this suggested effect.

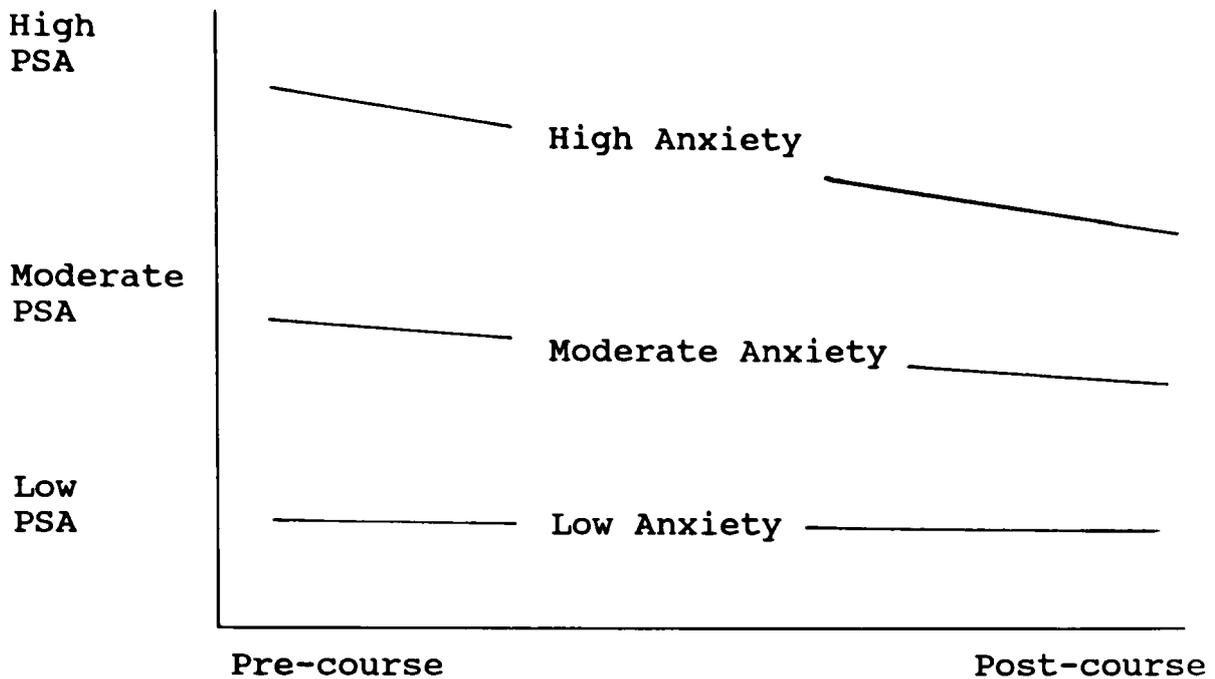


Figure 2. The Proposed Effect of Academic Training in Public Speaking on PSA for High, Moderate and Low Apprehensives

The differences among levels of PSA in accuracy of knowledge about public speaking at the beginning of a course would be expected assuming confirmation of RQ_1 . However, the final effect of completion of a public speaking course is expected to produce differences in both levels of PSA and knowledge about public speaking, although high and low PSAs are likely to remain different in the accuracy of knowledge gained. As suggested earlier, (p. 29), high levels of anxiety are expected to adversely affect the assimilation of instructional input about public presentation. While the experience of the academic course should serve to reduce the novelty or ambiguity about public speaking

and thus reduce overall levels of PSA (Beatty, 1988a; Beatty, Balfantz & Kuwabara, 1989), the residual anxieties should, according to Tobias (1980), continue to mitigate the learning process such that significant differences in knowledge about public speaking will continue to be observed between persons high in PSA and persons low in PSA. The following research questions were, therefore, proposed as a direction for the present study:

RQ₂: At the completion of a public speaking course, will PSA be significantly less for all students than at the beginning of the course?

RQ₃: At the end of a public speaking course, will differences in PSA still manifest significant differences in knowledge about public speaking, such that low PSAs will exhibit more accurate knowledge about public speaking than will high PSAs?

CHAPTER II
METHODOLOGY OF THE STUDY

Sample

Two hundred fifty-seven (257) undergraduate students at a large southwestern university served as respondents for the present study. The research sample consisted of 120 females (46.9%) and 137 males (53.1%), ranging in age from 17 to 46 years, with a mean age of 22.9 years. The majority of the subjects were in their senior year (54.2%) with the remainder classified as juniors (27.5%), sophomores (14.8%), and freshmen (3.5%). The sample was overwhelmingly Caucasian (90%), with a remaining mix of Hispanic (5%), Black (4%), and other (1%).

The students were enrolled in either introductory Public Speaking (93 subjects, 36.1%) or Business and Professional Communication (164 subjects, 63.9%) courses. Each student was required to make a minimum of two oral presentations, seven to ten minutes in length, to an audience of their peers for graded evaluation. The students were allowed to self-select topics and had an average of 8 days between presentations.

With these courses fulfilling the university's general education requirement for an oral communication course, the majority of the students enrolled had no

prior collegiate level speech training. Data were collected in a pre-course and post-course sequence with students completing the questionnaire on the first class day, prior to any instruction, and on or about the final class of the semester.

Measurement

Public Speaking Anxiety

The Personal Report of Public Speaking Anxiety (PRPSA), a 34-item, 5-step, Likert-type scale (McCroskey, 1970) was employed as the assessment of anxiety about speaking in the public context (see appendix A). This instrument has established validity and reliability (McCroskey, 1970) as a measure of generalized context-based anxiety about public speaking (PSA). Although one of the earlier developed measures of PSA and more lengthy than more recently developed tests, all the PRPSA's 34 items have been shown to have validity and load on a single factor (McCroskey, 1970). The PRPSA yields scores with a potential range of 34 to 170 and has a hypothetical neutral score of 102. According to Richmond and McCroskey (1989), scores on the PRPSA falling within the 34 to 84 range are indicative of very low anxiety; 85 to 92 indicates moderately low anxiety; 93 to 110 represents moderate anxiety; 111 to 119 suggests moderately high PSA and

scores between 120 and 170 indicate a very high level of anxiety about public speaking. Testing of several thousand college students (Richmond & McCroskey, 1989) has established that 5 percent of people exhibit low anxiety about public speaking, 5 percent moderately low anxiety, 20 percent moderate anxiety, 30 percent moderately high apprehension and 40 percent high anxiety.

Respondents in the present study were segregated into three groups as determined by pre-course scores on the PRPSA. Subjects scoring one or more standard deviations below the mean (112.22) were classed as low in PSA (≤ 89 ; PSALEV 1). Students scoring less than one standard deviation above or below the mean PSA score were categorized as moderate in PSA (90-134; PSALEV 2) while those with scores one standard deviation or more above the mean were classified as high PSA (≥ 135 ; PSALEV 3). This segregation of students resulted in three sub-groups: low PSA (PSALEV 1) = 35 students, moderate PSA (PSALEV 2) = 174 students, and high PSA (PSALEV 3) = 45 subjects.

Academic Knowledge

Students' level of knowledge about public speaking was measured via two separate scales developed specifically for the present study. The basis for these

scales centered upon the seven skills or procedures as outlined in the review of public speaking textbooks noted earlier.

Adapting the methodology of Daly et al. (1989) and Booth-Butterfield et al. (1990), respondents were first asked, in a free-response format, to "list something you know about preparing and giving speeches and presentations." Through content analysis, the subjects' statements were placed into one or more of the seven topical categories and coded in such a way that increased numerical totals would represent more knowledge about public speaking (i.e., 1, representing mention of a skill or procedure, or 0, signifying no mention of a skill or procedure). After the items were classified, the coding scheme was presented to two judges who independently validated the method of coding, producing agreement of 89% and 92% with the original scoring. Each of the seven classificatory items was treated individually in the data analyses.

The second assessment of students' knowledge about public speaking (see appendix B) involved a series of fourteen statements about public speaking such as "the speaker is the one who determines what the thesis of a speech will be." Students were asked to indicate whether these statements were (1) always true, (2) usually true, (3) seldom true, or (4) never true. This

measure was constructed so that one half of the statements were, according to the academic construct, always or usually true and the remainder were seldom or never true. Responses to these statements were scored so that credit was given for correct answers and no credit for incorrect answers thus allowing a larger total score to be indicative of more sophisticated knowledge about public speaking.

These scores were converted to percentages such that a score of 100 percent would represent complete and accurate knowledge of the seven content areas of public speaking. The reliability of the true-false items was assessed via the split-half method ($\underline{r} = .268$).

In addition to these tests of anxiety and academic knowledge, students were asked to rank a list of the seven academic content areas by order of importance. Responses for this measure were not statistically examined due to bias in post-course answers introduced by different or unequal emphasis placed upon the importance of these content areas by the course instructors. Students were further asked to answer an open-ended question concerning their thoughts about public speaking, complete the twenty-four item version of the Personal Report of Communication Apprehension and were administered a modified version of the A-state anxiety measure. These scales were not relevant to the

present study and were not utilized in tests of the research questions although demographic data such as age, sex, college year, etc., was captured.

Statistical Analysis

Research questions 1 and 3 were examined with chi-square analyses for examining knowledge measured by the classification of students' responses to the free-response knowledge question. Responses to the true-false type test of knowledge were analyzed in one-way ANOVAs with three levels of PSA serving as the independent variable.

Research question 2 was tested by a t-test for differences between correlated means, comparing pre-course and post-course PSA scores. An alpha level of .05 was set as the indicator of significance for all analyses.

Results

Responses to the free-recall knowledge items in the pre-course testing indicate that, as a group, the students had a rudimentary knowledge or schema about public speaking. Four of the content areas of public speaking (i.e., choose a topic, determine purpose, analysis of audience, and establish a thesis) were identified by a maximum of only 17.7 percent of the respondents. The remaining content areas were mentioned

by more of the students: "research the topic," 54.3 percent; "outline the presentation," 53.5 percent; "rehearse the delivery," 60.6 percent.

Respondents' pre-course and post-course PRPSA scores fell well within the nominal range expected from such a sample (see p. 31). Students scored between 59 and 170 on pre-course testing and between 41 and 162 on the post-course assessment, indicating some reduction of PSA across the course. Similarly, the median PRPSA scores indicated reduction of anxiety levels across time when the pre-course PRPSA median score of 111 is compared with a post-course median score of 96.

Research Question 1

Direct testing of RQ₁ required examination of the frequency of positive responses to each of the seven content areas within level of PSA. Table 1 reports the pre-course frequencies and chi-square results and indicates that, with respect to general, free-recall knowledge about public speaking at the beginning of a course, level of PSA had no significant effect. Within this measure of academic knowledge there were no differences among levels of PSA.

For RQ₁, knowledge was also assessed by means of a true-false type test in which students indicated the correctness of statements regarding each content area of

Table 1

Pre-Course Frequencies with Which Students Indicated Knowledge of Each Content Area as a Function of PSA level (Percentages)

Topic Area	Level of PSA			Chi Square
	Low	Moderate	High	
"Choose topic"	Did not report	147 (57.9)	31 (12.2)	1.69
	Did report	30 (11.8)	5 (2.0)	
"Determine Purpose"	Did not report	167 (65.8)	35 (13.8)	0.68
	Did report	10 (3.9)	1 (0.4)	
"Analyze Audience"	Did not report	150 (59.1)	28 (11.0)	0.32
	Did report	27 (10.6)	8 (3.2)	
"Establish Thesis"	Did not report	172 (67.7)	34 (13.4)	0.14
	Did report	5 (2.0)	2 (0.8)	

Table 1 continued

Topic Area	Level of PSA			Chi Square
	Low	Moderate	High	
"Research Topic"	Did not report	82 (32.3)	15 (5.9)	0.87
	Did report	95 (37.4)	21 (8.3)	
"Outline Presentation"	Did not report	84 (33.1)	17 (6.7)	0.78
	Did report	93 (36.6)	19 (7.5)	
"Rehearse Delivery"	Did not report	70 (27.6)	16 (6.3)	0.65
	Did report	107 (42.1)	20 (7.9)	

Note: each Chi Square was nonsignificant at p = .05 level.

public speaking. Percentage scores on this test were subjected to a one-way ANOVA with level of PSA being the independent factor. Results showed a significant effect for level of PSA on the true-false test: $F(2,251) = 4.57$, $p = .01$, $R^2 = .04$. The significant effect was due to differences between the low PSA students ($M = 49.83$) and the moderate PSA students ($M = 44.98$). The difference between moderate and high PSA students was not significant. However, the difference between moderate and high PSA groups approached significance at the established .05 level: moderate $M = 44.98$, high $M = 46.23$, $p = .09$. Thus, whereas PSA showed no effect on students' prior knowledge about public speaking coming into a course when measured in a general, free-recall form, it did have some impact on knowledge levels as measured by a recognition form of test such as the true-false instrument. In partial support of RQ₁, then, low PSA students showed more pre-course knowledge than did moderates, and potentially more than did highs.

Research Question 2

RQ₂ predicted that PSA scores would decrease for all students following completion of a course in oral performance or public speaking. This prediction was confirmed by testing for significant differences in mean scores on the PRPSA between pre-course ($M = 112.22$) and

post-course ($M = 97.12$) administrations. The mean difference following the course, as depicted in Table 2, was 16.63 ($t = 9.09, p < .001$), a 13.46 percent reduction in PSA level. Clearly, the experience of the academic course, making actual presentations, and informal attempts at anxiety reduction combined to effectively reduce student PSA.

Table 2
Student Means for Pre-Course and Post-Course
Public Speaking Anxiety

	Mean Score	Percent Change
Pre-Course	112.22	
Post-Course	97.12	- 13.46

Research Question 3

RQ₃ queried whether, despite a general reduction in level of PSA at the end of the oral performance course, significant differences in knowledge about public speaking might remain across levels of PSA. Table 3 illustrates the post-course frequencies and chi-square coefficients for the three PSA sub-groups. With the exception of a marginal significance ($p = .07$) in the "research topic" content area, no significant

differences among the three groups were detected. As with RQ₁, knowledge was further tested by means of fourteen true-false recognition items. Percentage scores on these post-course items were subjected to a one-way ANOVA with outgoing level of PSA as the independent variable. Results showed no significant effect for level of PSA as related to level of knowledge following the academic course: $F = .99, p = .38$.

Table 3

Post-Course Frequencies with Which Students Indicated Knowledge of Each Content Area
as a Function of Outgoing PSA level (Percentages)

Topic Area	Level of PSA			Chi Square
	Low	Moderate	High	
"Choose topic"	Did not report	15 (10.3)	17 (11.7)	0.23
	Did report	5 (3.5)	3 (2.1)	
"Determine Purpose"	Did not report	20 (13.8)	19 (13.1)	0.30
	Did report	0 (0.0)	1 (0.7)	
"Analyze Audience"	Did not report	16 (11.0)	14 (9.7)	0.27
	Did report	4 (2.8)	6 (4.1)	
"Establish Thesis"	Did not report	20 (13.8)	19 (13.1)	0.49
	Did report	0 (0.0)	1 (0.7)	

Table 3 continued

Topic Area	Level of PSA			Chi Square
	Low	Moderate	High	
"Research Topic"	Did not report	12 (8.3)	5 (3.5)	0.07
	Did report	8 (5.5)	15 (10.3)	
" Outline Presentation"	Did not report	9 (6.2)	10 (6.9)	0.79
	Did report	11 (7.6)	10 (6.9)	
"Rehearse Delivery"	Did not report	9 (6.2)	11 (7.6)	0.74
	Did report	11 (7.6)	9 (6.2)	

Note: each Chi Square was nonsignificant at $p = .05$ level.

CHAPTER III
DISCUSSION AND IMPLICATIONS
OF THE STUDY

Limitations

There are limitations to the present study which should be noted when interpreting the results. Students selected for this study came from two different, although complementary, speech communication courses, Public Speaking and Business and Professional Communication. While both courses were concerned with the theory, preparation and delivery of formal presentations, the two were not identical. Such differences as separate textbooks, a variety of instructors and somewhat different course objectives may have combined to introduce variance among the students in post-course accuracy of knowledge about public presentations.

One of the measures of students' academic knowledge involved the use of true-false questions. A low reliability score ($r = .268$) was obtained for this measure. Research in educational measurement (Grosse & Wright, 1985; Oosterhof & Glasnapp, 1974; Frisbie, 1973; Frisbie, 1974) suggests that true-false tests, especially relatively short tests, often do not produce high reliability when compared to other types of testing

methods (i.e., multiple choice, short essay, etc.). While other studies (Green, 1979; Diekhoff, 1984) suggest that true-false tests are valid and reliable for assessing structural understanding and have the advantage of being efficient in sampling knowledge of course content in the least amount of time, the low reliability of true-false items in the present study implies that a content area specific, multiple choice instrument, for example, might produce more reliable assessment of academic knowledge.

Further, the present study did not utilize more typical measures of classroom learning, such as a final examination, which might have more accurately reflected knowledge of the academic content areas. Since student respondents came from several different course sections, each with a different instructor, it was felt that a "standardized" knowledge measure would best assess student knowledge across classes. While such standardization simplified data collection, it did not allow for instructor differences. For example, while instructors in Public Speaking classes may have stressed the importance of "establishing a thesis," those teaching Business and Professional Communication may have placed more emphasis on other content areas (i.e., "rehearse delivery"). While all seven content areas were addressed in each course and in both textbooks, the

significance given any one area was a function of the specific instructor.

A few students ($N = 6$) were identified as exhibiting such high levels of PSA as to require active, outside of class remediation of their anxiety. These students voluntarily participated in either systematic desensitization or visualization session to help reduce their debilitation. Although the number of such students was relatively small, the impact of their sharing of their knowledge of anxiety reduction techniques with fellow class members is not known.

Additionally, the initial sample size of 257 students was considerably reduced in post course analysis. Due to attrition for various reasons (e.g., students dropping the course, withdrawing from college, being absent from testing sessions, etc.) and as a result of mis-matched data sets (i.e., incomplete or unreadable questionnaires) the post-course sample size totaled 147 students.

Finally, given the difference between the pre-course sample size ($N = 257$), the post-course sample size ($N = 147$) and the established alpha level of .05, there exists the possibility for Type I error in testing for significant differences among students. A further sub-division of students into three groups, as a function of level of PSA, reduced the comparison sample

size further (i.e. high PSAs compared to moderate PSAs and low PSAs), thus increasing the possibility of rejecting the null hypothesis or research question in error. The slight to moderate differences revealed in the statistical analysis should, therefore, be viewed as merely indicative of possible actual differences among the PSA groups and not as definitive, positive support for any research question. Considerably larger sample sizes combined with lower alpha levels (e.g. $p = .01$) should be utilized for further testing of the research questions or developed hypotheses.

Examination of Research Questions

Research Question 1

Research question one asked whether, prior to an academic course in public presentation, high PSA students would exhibit less accurate knowledge about public speaking than would low PSA individuals. A positive, though qualified, result was obtained.

In contradiction of the theoretical rationale and query of RQ₁, the analysis of initial responses to the free-recall type question (i.e., "list something you know about public speaking") uncovered no significant pre-course differences among low, moderate, and high PSA students in their accuracy of knowledge about the

principles of public speaking. Pre-course responses to the true-false, recognition type items, however, revealed statistically significant variance in knowledge accuracy among the three PSA groups with low PSAs demonstrating more accurate public speaking knowledge than moderate or high PSAs.

The lack of consistency between the responses to these two types of questions suggest that the true-false and free-recall questions may be approaching the knowledge issue from different perspectives. The absence of "cues" in the free-recall question, presented prior to the true-false items, may have forced the respondents to examine their schema about public speaking. Regardless of PSA, generally, students entering these courses exhibited little schematic knowledge of oral presentation making. Differences between moderate and low PSA students on the true-false test, however, does suggest that lows have a greater propensity to recognize important features of oral presentation making. This may indicate that low PSA students have slightly more developed schema as a result of a "self confidence" about public speaking. Such low PSA students would be expected to demonstrate a more complex schema at the end of a course since the subject of public speaking would be less aversive and more interesting to them.

Research Question 2

As illustrated in Figure 1.2 (p. 27), and asked in RQ₂, would PSA levels for all students be reduced following the academic course? Analysis of student responses to the measure of PSA (i.e. PRPSA 34) provided positive results to this inquiry.

Previous research (Pelias, 1989) has demonstrated that most public speaking textbooks provide little information about or suggest few remedies for high levels of anxiety about public speaking. Such was the case with the textbooks for the courses used in the present study. Reduction of PSA was not, therefore, the result of merely reading about the problem and only a small fraction of students were formally treated with remediation techniques.

Considering the different emphasis placed on reducing PSA by the various instructors and the two textbooks used and recognizing the modest overall reduction of PSA, it is logical to conclude that students' PSA was reduced because of learning more about the academic content areas of public speaking. Clearly, high PSA did not prevent students from developing more complete schemata about public speaking. Additionally, students were given the opportunity for experiential learning or for practicing public speaking techniques.

Prior research (Richmond & McCroskey, 1989) indicates that such skills training and practice has validity for reducing anxiety.

Research Question 3

As a corollary to RQ₁, research question three asked whether, despite an anticipated overall reduction in PSA and regardless of expected overall gains in accuracy of public speaking knowledge following an academic course, significant differences would remain among the PSA groups. It was expected that high PSA students would demonstrate increased knowledge but that their level of knowledge after the completion of a course in public speaking would remain less than the level of knowledge shown by low PSA students. No statistically significant difference between the PSA groups on post-course accuracy of knowledge was detected, regardless of assessment method utilized, and RQ₃ was, therefore, not supported.

This result may be understood as an effect of the different cognitive views existing between high and low PSAs. High PSA students, viewing public speaking as aversive, developed only slightly more knowledge of the principles and techniques of public presentation. The demonstrated slight increase in knowledge and equally small reduction in PSA suggest that high PSA students

did not develop schemata sufficiently adequate to reduce their high levels of anxiety. While it appears that increased knowledge about public speaking would lead to reduced PSA, the high PSA student may not learn enough about public speaking to make that knowledge sufficient to reduce anxiety significantly.

On the other hand, students low in public speaking anxiety exhibited even less gain in knowledge accuracy and less anxiety reduction. These students, having little anxiety or having experienced little aversive consequences to prior speaking experiences, may feel little motivation to learn the academic principles of presentation making. The "self confidence" of these students may cause them to approach the academic content areas of public presentation as interesting but not essential to good public presentations. Further investigation of these similarly low levels of learning is warranted.

Theoretical Implications

The present study explores the question of how student learning of the theories and principles of public speaking is effected by various levels of PSA. The issue is approached from the basis of both assimilation and schema theory and the results, though adding to previous research, provide neither clear-cut

support nor outright rejection of either explanation for the experience PSA or what impact such anxiety may have on students' academic learning.

Assimilation theory proposes that negative experiences within the public presentation domain are added to an individual's experience repertoire in such a way that they become predictors of future negative consequences and, hence, engender anxiety (Beatty & Behnke, 1980). This description is consistent with high pre-course PSA. The theory further implies that replacement of negative experiences with more positive experiences in public speaking should substantially reduce PSA. The residual levels of PSA exhibited by students at the completion of an academic course in making public presentations suggest that: (1) negative experiences are not easily replaced by either positive experiences or by academic knowledge of the principles and techniques of public speaking, or (2) high PSA students either avoid learning or do not assimilate acquired knowledge in such a way as to reduce PSA and low PSA students may feel little motivation to assimilate additional positive experiences or more detailed knowledge about making public presentations. The latter explanation appears more descriptive of the results obtained in the present study.

Schema theory (Green & Sparks, 1983) asserts that anxiety arises when individuals cannot identify appropriate responses to a given stimulus, such as a public speaking situation. Highly anxious persons are assumed to possess poorly developed schema or concepts about what public speaking is and how to behave in that context. Persons with low PSA are thought to have a more developed or sophisticated schema about public speaking. While schema theory might explain the low knowledge scores of high pre-course PSA persons, it fails to address the results showing low post-course knowledge gains for high PSAs or the results showing that low PSA individuals possess no greater pre-course knowledge about public speaking than do high PSAs.

Instructional Implications

As noted earlier, it has long been assumed that the typical student approaches the public speaking or presentation course with either no knowledge of the academic content areas or with only a vague idea of some of the essential elements of presentation making. This study supports that view and demonstrates that, regardless of level of anxiety, the typical student does not have well developed schemata or knowledge at the beginning of a course. The teaching of the theory of public communication, the significance of the seven

academic content areas of presentations, and the experience of actually making presentations remain essential in a successful academic approach to public speaking.

Students' pre-course emphasis on the more behavioral content areas (i.e. research, outlining, and rehearsal) and post-course emphasis on the less behavioral elements (i.e. topic selection, thesis development, or audience analysis) indicate that teachers of public speaking may place unequal importance on the academic content areas. Teachers need to be balanced in their approach to the subject of public presentations, validating what little the typical student brings to the course while supplementing and increasing the students' schema with the more cognitive content areas.

The results of the present study, though leaving considerable room for additional research into the effects of PSA, suggest that the anxiety does not substantially influence the academic learning of high PSA individuals when compared to low PSA students. While it is logical to assume that speech performance courses required of all students as part of a general education curriculum will result in a disproportionate number of highly anxious students, it does not follow that teachers will consider the effect of PSA on the

learning of the course content. The present study indicates that teachers of oral presentation courses in which enrollment is required should be more concerned with the effects of PSA on oral performance than on content learning.

The present study utilized a series of true-false type questions as an assessment of knowledge about public speaking. The low reliability coefficient obtained for these questions suggests that true-false type tests of knowledge about public speaking may not accurately assess a student's knowledge, understanding or ability to intergrate and apply the principles and techniques of public speaking to public communication situations. Such low reliability scores may be the result of student guessing on true-false items. Ebel (1972) reports, for example, that true-false type items are generally more discriminating on items marked false than on items marked true. The effect of students' guessing style on true-false type items is significant and serves to dilute the reliabilty of such questions (Ebel, 1972). What effect level of PSA may have on such guessing attempts or style is unknown. Communication educators should, therefore, carefully consider these assessment effects before depending upon true-false questions as a methodology for measuring students' academic knowledge about public presentations.

Future research should consider the differences among individual students' preferred styles of learning as yet another factor impinging upon the assimilation of instructional input and subsequent schema development about public speaking. Of interest to communication educators would be evidence of any relationship between level of anxiety and learning style as an additional factor impacting upon students' learning of the principles of public speaking. While substantial work has been done in examining the relationship of anxiety and learning style, research into the effect of the specific anxiety labeled PSA on learning style and subsequent schema development in academic courses in public presentation remains to be done.

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APPENDIX A

PERSONAL REPORT OF PUBLIC SPEAKING ANXIETY

PLEASE INDICATE THE DEGREE TO WHICH THE FOLLOWING STATEMENTS APPLY TO YOU BY MARKING WHETHER YOU: (1) STRONGLY AGREE, (2) AGREE, (3) ARE UNDECIDED, (4) DISAGREE, OR (5) STRONGLY DISAGREE. WORK QUICKLY, JUST RECORD YOUR FIRST IMPRESSION. DO NOT BE CONCERNED THAT SOME STATEMENTS ARE GIVEN MORE THAN ONCE.

1. WHILE PREPARING FOR GIVING A SPEECH I FEEL TENSE AND NERVOUS. 1 2 3 4 5
2. I FEEL TENSE WHEN I SEE THE WORDS "SPEECH" AND "PUBLIC SPEECH" ON A COURSE OUTLINE WHEN STUDYING. 1 2 3 4 5
3. MY THOUGHTS BECOME CONFUSED AND JUMBLED WHEN I AM GIVING A SPEECH. 1 2 3 4 5
4. RIGHT AFTER GIVING A SPEECH I FEEL THAT I HAVE HAD A PLEASANT EXPERIENCE. 1 2 3 4 5
5. I GET ANXIOUS WHEN I THINK ABOUT A SPEECH COMING UP. 1 2 3 4 5
6. I HAVE NO FEAR OF GIVING A SPEECH. 1 2 3 4 5
7. ALTHOUGH I AM NERVOUS JUST BEFORE STARTING A SPEECH, I SOON SETTLE DOWN AFTER STARTING AND FEEL CALM AND COMFORTABLE. 1 2 3 4 5
8. I LOOK FORWARD TO GIVING A SPEECH. 1 2 3 4 5
9. WHEN THE INSTRUCTOR ANNOUNCES A SPEAKING ASSIGNMENT IN CLASS I CAN FEEL MYSELF GETTING TENSE. 1 2 3 4 5
10. MY HANDS TREMBLE WHEN I AM GIVING A SPEECH. 1 2 3 4 5
11. I FEEL RELAXED WHILE GIVING A SPEECH. 1 2 3 4 5
12. I ENJOY PREPARING FOR A SPEECH. 1 2 3 4 5
13. I AM IN CONSTANT FEAR OF FORGETTING WHAT I PREPARED TO SAY. 1 2 3 4 5

14. I GET ANXIOUS IF SOMEONE ASKS ME
SOMETHING ABOUT MY TOPIC THAT
I DO NOT KNOW. 1 2 3 4 5
15. I FACE THE PROSPECT OF GIVING A SPEECH
WITH CONFIDENCE. 1 2 3 4 5
16. I FEEL THAT I AM IN COMPLETE POSSESSION
OF MYSELF WHILE GIVING A SPEECH. 1 2 3 4 5
17. MY MIND IS CLEAR WHEN GIVING A SPEECH. 1 2 3 4 5
18. I DO NOT DREAD GIVING A SPEECH. 1 2 3 4 5
19. I PERSPIRE JUST BEFORE GIVING A SPEECH. 1 2 3 4 5
20. MY HEART BEATS VERY FAST JUST AS I START
A SPEECH. 1 2 3 4 5
21. I EXPERIENCE CONSIDERABLE ANXIETY WHILE
SITTING IN THE ROOM JUST BEFORE MY
SPEECH STARTS. 1 2 3 4 5
22. CERTAIN PARTS OF MY BODY FEEL VERY TENSE
AND RIGID WHILE GIVING A SPEECH. 1 2 3 4 5
23. REALIZING THAT ONLY A LITTLE TIME
REMAINS IN A SPEECH MAKES ME VERY
TENSE AND ANXIOUS. 1 2 3 4 5
24. WHILE GIVING A SPEECH I KNOW THAT I CAN
CONTROL MY FEELINGS OF TENSION AND STRESS. 1 2 3 4 5
25. I BREATHE FASTER JUST BEFORE STARTING A
SPEECH. 1 2 3 4 5
26. I FEEL COMFORTABLE IN THE HOUR OR SO JUST
BEFORE GIVING A SPEECH. 1 2 3 4 5
27. I DO POORER ON SPEECHES BECAUSE I AM
ANXIOUS. 1 2 3 4 5
28. I FEEL ANXIOUS WHEN THE TEACHER ANNOUNCES
THE DATE OF A SPEAKING ASSIGNMENT. 1 2 3 4 5
29. WHEN I MAKE A MISTAKE WHILE GIVING A
SPEECH I FIND IT HARD TO CONCENTRATE
ON THE PARTS THAT FOLLOW. 1 2 3 4 5

30. DURING AN IMPORTANT SPEECH I EXPERIENCE
A FEELING OF HELPLESSNESS BUILDING UP
INSIDE ME. 1 2 3 4 5
31. I HAVE TROUBLE FALLING ASLEEP THE NIGHT
BEFORE A SPEECH. 1 2 3 4 5
32. MY HEART BEATS VERY FAST WHILE I PRESENT
A SPEECH. 1 2 3 4 5
33. I FEEL ANXIOUS WHILE WAITING TO GIVE MY
SPEECH. 1 2 3 4 5
34. WHILE GIVING A SPEECH I GET SO NERVOUS I
FORGER FACTS I REALLY KNOW. 1 2 3 4 5

APPENDIX B

**TRUE/FALSE QUESTIONS ABOUT
PUBLIC SPEAKING**

PLEASE RESPOND TO THE FOLLOWING STATEMENTS ABOUT PUBLIC SPEAKING BY INDICATING WHETHER THEY ARE (AT) ALWAYS TRUE, (UT) USUALLY TRUE, (ST) SELDOM TRUE OR, (NT) NEVER TRUE. PLEASE ANSWER TO THE BEST OF YOUR ABILITY AND WORK QUICKLY. THE ANSWERS TO THESE STATEMENTS WILL NOT IMPACT YOUR GRADE IN THIS COURSE IN ANY WAY.

1. Audience analysis involves knowing as much as possible about how the audience feels after the speech. AT UT ST NT
2. It is not necessary for a speaker to have a thesis in mind before beginning to speak. AT UT ST NT
3. Speakers should always choose speech topics with which they are personally familiar. AT UT ST NT
4. In an persuasive speech, the speaker should try to remain neutral and let the audience members make up their minds. AT UT ST NT
5. The speaker is the one who determines what the thesis of a speech will be. AT UT ST NT
6. Good speakers strive to keep the same rate of speech and avoid pauses when making informative speeches. AT UT ST NT
7. Audience analysis involves knowing as much as possible about the audience before the speech. AT UT ST NT
8. Research for a speech is not necessary if the audience knows little about the topic of the speech. AT UT ST NT
9. When given the choice, it is best to write a word-for-word transcript of a persuasive speech. AT UT ST NT

10. An outline of a speech should contain only the key points that are to be covered in the speech. AT UT ST NT
11. It is important to determine the purpose of a speech before establishing a thesis. AT UT ST NT
12. Research for a persuasive speech is especially important if the topic is controversial and the audience is knowledgeable about the issues. AT UT ST NT
13. The purpose of a speech is determined by the type of audience that will hear the speech. AT UT ST NT
14. When selecting a topic, it is important to choose one that can be narrowed down to a few main points. AT UT ST NT